

Well Played 2.0

Video Games, Value and Meaning

Edited by Drew Davidson

"I think that a robust professional and academic critical context is an important adjunct to the creative culture that produces games, and that advancement in a form is rarely possible without it."

Richard Lemarchand
Lead Game Designer
Naughty Dog





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**Video Games,
Value and Meaning**

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&
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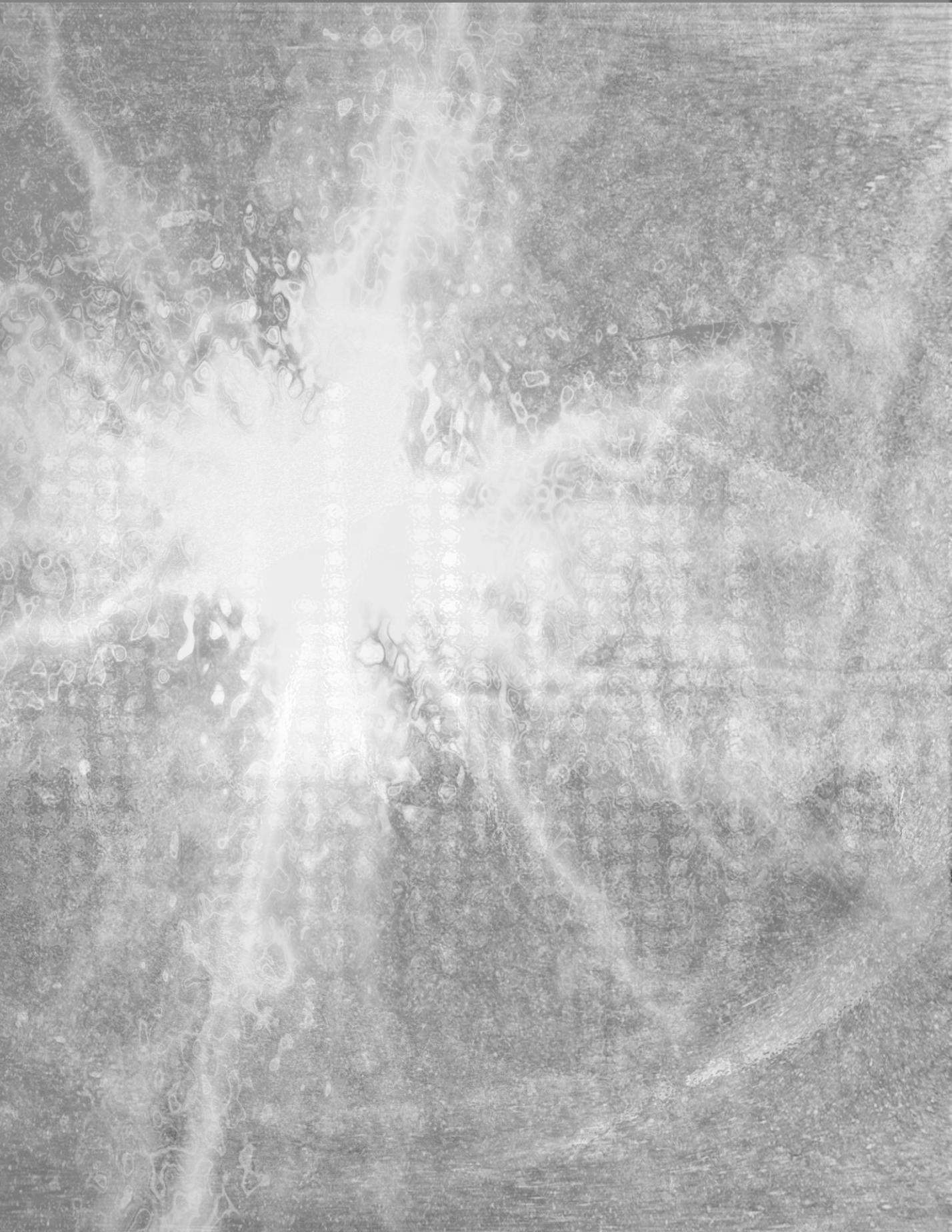


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Design & composition by John J. Dessler

THANK YOU

This second Well Played book was another enjoyable project full of interesting insights into what makes videogames great. A huge thank you to all the contributors who shared their ideas along with some inspiring analysis. A thank you to John Dessler for his great work on the book design. And thanks again to everyone who has joined in the discussion around games being well played. And to my wife, as always.

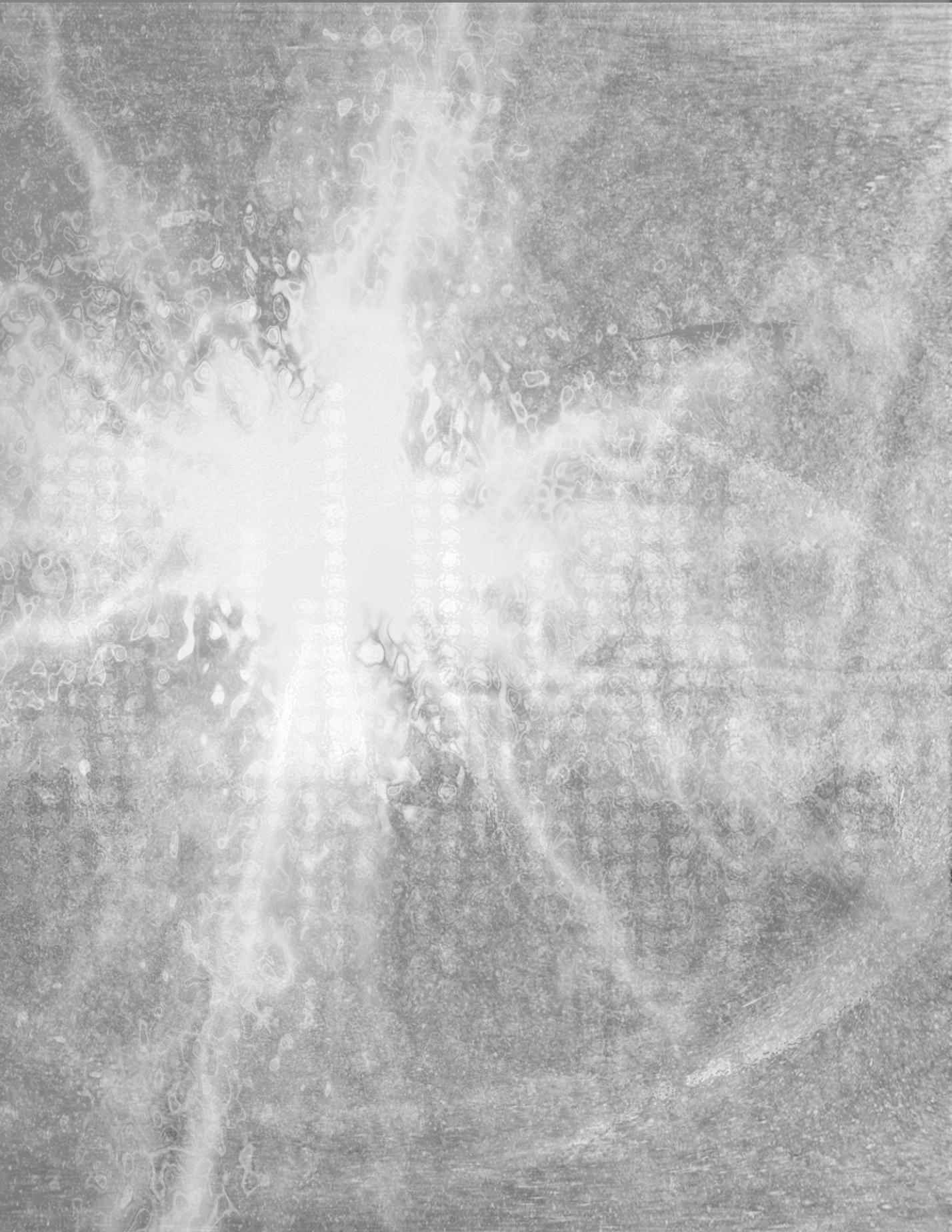


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WELL PLAYED 2.0

MORE PERSPECTIVES ON VIDEO GAMES, VALUE AND MEANING

Following on Well Played 1.0, this book is full of in-depth close readings of video games that parse out the various meanings to be found in the experience of playing a game. Contributors analyze sequences in a game in detail in order to illustrate and interpret how the various components of a game can come together to create a fulfilling playing experience unique to this medium. Contributors are again looking at video games in order to provide a variety of perspectives on the value of games.

As before, the term “well played” is being used in two senses. On the one hand, well played is to games as well read is to books. So, a person who reads books a lot is “well read” and a person who plays games a lot is “well played.” On the other hand, well played as in well done. So, a hand of poker can be “well played” by a person, and a game can be “well played” by the development team.

Contributors are looking at video games through both senses of “well played.” So, with well played as in well read, contributors are looking closely at the experience of playing a game. And with well played as in well done, contributors are looking at a game in terms of how well it is designed and developed.

As with 1.0, this book is completely full of spoilers on all the games discussed, so consider this your fair warning. While it’s not necessary, all the contributors encourage you to play the games before you read about them.

An initial idea proposed in 1.0 was to follow it with two books; 1.5 (with contributors writing on the games found in 1.0) and 2.0 (with contributors writing on new games that weren’t covered in 1.0). But the idea evolved, through the interests of the contributors, to have two books, 2.0 followed by 3.0, focusing primarily on new games. We’ll then follow these three books with a regular on-going series of Well Played publications open to anyone who is interested in submitting an essay analyzing a game.

The goal of all of these books, and the following series, is to help further develop and define a literacy of games as well as a sense of their value as an experience. Video games are a complex medium that merits careful interpretation and insightful analysis. By inviting contributors to look closely at video games and the experience of playing them, we hope to expand the discussion, and show how many different games are well played in a variety of ways.

“

*I chose the road with the
robots and the weirdoes.
And that has made all the
difference.*

”

JAY BUSHMAN

CLOUDMAKER DAYS: A MEMOIR OF THE A. I. GAME

Vertices and Vortices

On the evening of May 6th, 2001, I dawdled on the corner of 4th Street and Avenue A in New York City, trying to decide if I really would attend a rally for the Anti-Robot Militia.

I wouldn't know anybody there. Sure, I had corresponded with some of them through an online message board. And after chickening out of the first gathering, I'd gone to the second cell meeting the week before – a dozen or so tentative geeks communing in an empty mid-town dining room, gingerly feeling each other out over our shared obsession with a strange series of websites. But this would be different. Even though the rally was taking place at an East Village bar, it was ostensibly going to be in the world of the “game.” Nobody knew what to expect, although speculation was rampant. But this would be more than just kibitzing about an online curiosity. This was the real world.

I thought about going home. It was a Sunday night. I could skip a strange evening with a bunch of weird geeks, turn in early and get ready to face Monday morning. I could read about what happened behind the safety of my monitor. Standing on that corner, I hesitated.

At last, I chose the road with the robots and the weirdoes. And that has made all the difference.

Evan is Dead, Jeanine is the Key

The “game” in question had no name. After the experience was all over, we learned that the designers – we had named them the “Puppetmasters” or “PMs” – had no real name for it either. They called it “The Beast,” at first because an early asset list contained 666 items and later because of the havoc that the ever-expanding

experience wreaked on their lives. These days, it's sometimes described as "The A.I. Game" or "The A.I. Web Experience," dull monikers that give the bare minimum of information necessary to open conversation with a non-initiate.

In the middle of the scrum we called it "Evan Chan," after the story's first victim. Most often it was nameless, too new and multifarious to be contained by any kind of description we could invent. Like religion or art, it couldn't be explained to anybody who didn't already get it. Or at least, in the rush of spring 2001, that's how it felt to the initial converts.

Now, almost ten years later, this type of experience has evolved into something called an "Alternate Reality Game," a term that, as far as I can tell, nobody likes. There continue to be endless debates over what exactly an ARG is, or what it is not, how to make them, how to sell them, how to make money from them, etc. In 2001, we had no terminology to describe these experiences and had to invent or appropriate our own. One of the terms that sprang up quickly – and which has survived in the lexicon – is "rabbit hole," meaning an entry point into the experience where a player/follower discovers a seemingly innocuous detail in the real world and follows it into the fictional construct of the game.

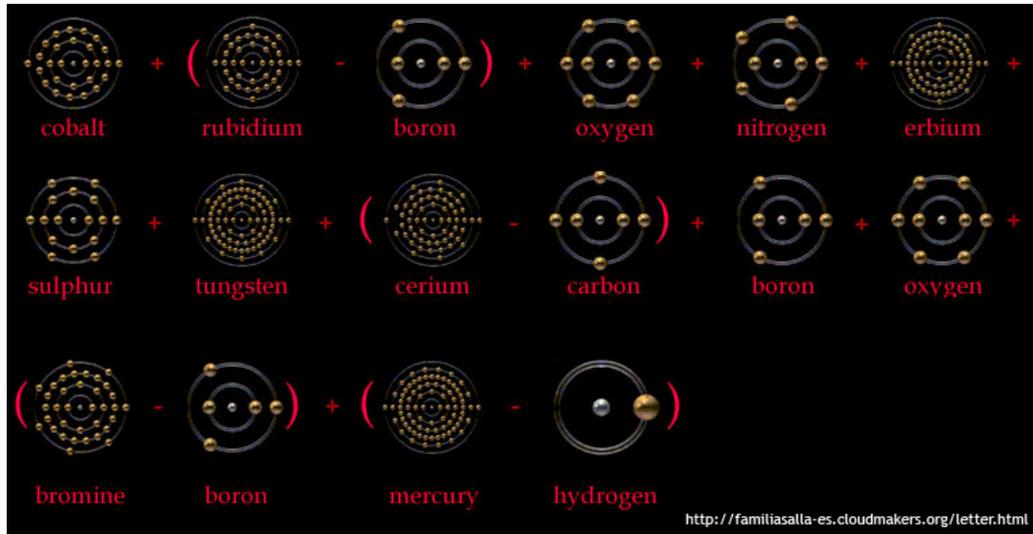
One of the rabbit holes for *The Beast* lurked on the poster for the movie *A.I.: Artificial Intelligence*, on which a fictional credit appeared for a "Sentient Machine Therapist" named Jeanine Salla. A web search for that name led to the Salla family website¹, where it claimed the year was 2142. Poking around the site, we learned about Salla's family and friends: Laia, her granddaughter, who would become our protagonist; Mephista, the artificial intelligence residing in Laia's mechanical implants, functioning as her familiar and daemon; and their recently-deceased friend Evan Chan, whom we soon would discover was the victim of a covered-up murder.

I won't recap the entire plot of the game here: the Cloudmakers site² hosts archived versions of most of the game sites and great resources, such as the Guide³ and the Trail⁴, that can help retrace each of the twists and turns. But another story unfolded alongside the mystery of Evan Chan's death; an ad-hoc community of like-minded people assembled – first online and later offline – to share the experience. If you talked to a hundred people who were there, you'd get a hundred different versions of what happened. This is one.

Head First Down The Rabbit Hole

The first place that I learned about Evan Chan was a post on the entertainment news website Ain't It Cool News, about a series of "strange websites related to the movie *A.I.*"⁵ Amidst the usual juvenile and joking commentary, this post and

related follow-ups also hosted an serious attempt to discover what the strange sites meant. An early focus was a puzzle that was uncovered while scouring the Salla family site:⁶



Initial attempts to solve this replaced the elements with their corresponding atomic numbers. This created a mathematic equation that equaled 406. Despite tortured attempts, no meaning could be gleaned from the number. But if the elements were replaced with their abbreviations from the Periodic Table instead of the numbers, a string of letters emerged⁷ that, when the correct additions and subtractions were made, yielded “CORONERSWEBORG,” leading to the site cononersweb.org⁸, where the players learned that Evan Chan had not died in an accident but was the victim of murder. (A common misreading of the element puzzle’s solution⁹ led to a running joke about a dashing, Swedish, crime-fighting medical examiner.)

What had until then seemed to be an exercise in creative worldbuilding emerged as a compelling mystery that could only be solved with the help of the players. Who had killed Evan Chan? Why was someone leaving clues on the Family Salla website? The players had come to know and like Evan Chan. They felt the grief of his death through the personal reactions of the other characters, especially Laia.¹⁰ The game had done something that many ARGs that followed would fail to do: it made us care about the fates of the characters.

Another way The Beast was able to hook the audience was through the seemingly limitless range of ways the game communicated itself to the players. Along with movie posters, emails and websites, there were television commercials, newspaper

ads, business cards and phone calls from the game directly to the players. When the story could be coming to you from any direction, the entire world seemed to be the game space.

As the complexity of the game increased, the Ain't It Cool talkback threads became unwieldy, and on April 11th, software developer Cabel Sasser created a dedicated message board on Yahoo Groups¹¹ to house a more focused discussion. He named the group after Evan Chan's A.I.-enhanced sailboat, the Cloudmaker¹², where it was suspected that Evan met his demise. While the Cloudmakers were far from the only locus of player activity surrounding the game, it quickly became the largest and most vocal – for better and for worse. Sasser published a quick summary of what we had learned in the game up until then. He named it The Trail¹³, a name that stuck.

The Care and Feeding of a Growing Hive Mind

Cloudmakers experienced exponential growth at the beginning of its life, and that growth only accelerated during the run of the game. In order to combat the onrushing hordes of new members who would make inaugural posts of “I solved the element puzzle. It's 406!” and “Who's this Coroner Sweborg guy?” the community rapidly self-selected standardized practices, terminology and personnel. Two days after the start of the group, after more than 200 posts to the mailing list, two players – Dan Hon in Cambridge, England and Bronwen Liggitt in New York City – agreed to collaborate on keeping the group on track¹⁴ by updating the Trail, pointing people to already-solved issues, keeping discussions on-topic and creating an IRC chat room¹⁵ for more real-time discussions.¹⁶ Four days after the start of the board the 1000th post was published and Sasser, absent since opening the group, turned moderator control over to Hon and Liggitt.¹⁷ Over the next few weeks, as the scope of the game and the Cloudmaker community exploded, more moderators were added. The IRC chat room quickly became the locus of fast-moving debate. Another Moderator-only chat became the administrative hub and hosted intense discussions of how to keep the group on track. Ultimately, the roster of moderators stabilized at seven.¹⁸ The “Mods” became de-facto full-time managers, many abandoning work or school projects to do so. Because the game refused to identify its own origin, the Mods stepped into the void and became the public face of the game¹⁹, appearing in interviews²⁰ and stories²¹ from numerous print, online and broadcast media outlets.

An early indication of the difficulty the Mods faced in keeping the community focused – and of the frightening impact that this collaborative collective could generate – was an event that became known as the Zartman Incident. In analyzing each game website, one regular technique was to lookup the site's WHOIS data from the registrar. Early on, it was found that sites ending in .com or .net were registered to fictional people with the last name Ghaepetto.²² However, one site was registered with a Romanian .ro domain and contained a real name and address

in the contact information – that of Doug Zartman, a well-known game designer.²³ Over the following weeks, the group treated Zartman like a suspect in their murder investigation, tracking down every shred of evidence of his whereabouts and his history. After a month of harassment, a beleaguered Zartman contacted the list directly, pleading for it to stop.²⁴

The Zartman Incident became a catalyst for a wide-ranging conversation about the ethics of playing the game and what could be defined as cheating. The game itself published no rules. The debate crystallized around the concept of the “curtain,” a metaphorical divide between what was part of the game world and what would reveal too much about the wizards who were making it happen. For the most part, players agreed that in order to get the maximum enjoyment out of the experience it was important to stay in front of the curtain and not to peek behind it. Since this dividing line was invisible, it was up to the players to decide where that curtain was. This decision was greatly subject to situational ethics, but enough of a consensus was reached so that when a second Puppetmaster, Pete Fenlon, was outed by inadvertently leaving his name in the metadata of a document²⁵, he was not subjected to an avalanche of email and phone calls.

By the end of the group’s first week of existence, as the Zartman controversy raged on and list membership swelled, it became clear that the Cloudmakers were growing too massive, unwieldy and inhospitable to anyone who didn’t constantly follow the story’s progress. It became increasingly difficult to be a casual Cloudmaker. The Mods took a number of steps to deal with this, by proposing – and in some cases dictating – new policies, and by creating two new lower-traffic versions of the list.²⁶ An effort was also made to enhance civility through new terminology, such as “trout,” which moderator Dan Fabulich intended to be intended to be a constructive shorthand for “we know that information already.”²⁷ While widely embraced in principle, “trouting” did not quite take on the non-hostile tone that was intended. Instead, it became more of an epithet, another way for “advanced” players to dismiss those who fell behind the dizzying pace. This viewpoint, sadly, was not confined to the fringe but crept into the attitude of many of the first wave of Cloudmakers who, in their lust for new information, appointed themselves arbiters of what was “right” and “wrong.”

The Puppetmasters, recognizing that the situation was making it increasingly difficult to bring new people into the experience, took action. A smaller group of players had started a new message board on a site called Spherewatch, and the PMs immediately mentioned them on an in-game site²⁸ hoping to encourage a place for more newbie-friendly conversation. When Cloudmakers followed the link to Spherewatch thinking it was a new game site, they instead found another player-created message board, one that was far behind where they were. Rather than allowing Spherewatch to be a gateway for those who were derided for asking “stupid” questions and cluttering their threads with trout, many saw it as a challenge to their ability to “properly solve the game.” The Spherewatch forum was flooded

by angry Cloudmakers²⁹ and flame wars raged³⁰ on both boards.³¹ The Mods went so far as to write an open letter to the Puppetmasters³² on behalf of their unruly members. The response the Mods got was wholly unexpected and initially not believed.

Elan Lee, the lead designer of the game, secretly contacted the Mods to discuss how to discourage the attacks on Spherewatch and how to make the site more inviting for new players. Initially thinking the communication was a hoax, the Mods were convinced when Lee changed a game site according to their instructions.³³ The Spherewatch situation eventually faded away after that community's moderator posted a statement of clarification.³⁴ The Spherewatch community hasn't been archived, so there's no comparable record of what the reaction on their side was. After this episode, Lee stayed in secret, sporadic contact with the Mods throughout the rest of the game to minimize further incidents.³⁵

Meanwhile, in the Real World...

Many player experiences mirrored my own – as I got sucked further into the game world, I found that my friends and family couldn't understand what had so captivated me. The only people who got it were other Cloudmakers. And so, around the same time that the Spherewatch flame war raged, a group of New York players met up in a bar to discuss the game. Shortly after, Cloudmaker meetups popped up in several other cities.

As pockets of Cloudmakers met in the offline world, the game was preparing to push itself into realspace as well. One of the in-game sites, a hub for the technophobic Anti-Robot Militia³⁶, announced that they would be holding "rallies" in New York, Los Angeles and Chicago on May 6th.

Walking into the New York rally was daunting. Amidst the regular bar patrons, lurkers clumped in ones and twos. We'd been instructed to wear red to identify each other, but in the dim bar light it wasn't easy to see color. After I had milled around for ten confusing minutes, a man appeared claiming to represent the A.R.M. He assembled us all in the back of the bar and gave us a puzzle to solve, the first of several that evening.

A good description of the in-game events of the rallies can be found in The Guide.³⁷ To my eyes, what stood out were the non-game elements. A few people left quickly, turned off by the weirdness of the situation. The forty or so people who remained at the New York rally quickly assembled themselves into a riddle-solving team. The network assembled with stunning ease, three physical locations in New York, Chicago and Los Angeles connected via phone, email and IRC to countless virtual nodes. People who had only known each other as names were now feverishly collaborating face-to-face and voice-to-voice. It was a transformative moment,

for me and for many of the others who were involved. I believe it was crucial in the development of ARGs, as the game actively embraced and rewarded player collaboration and the communal experience. The ambivalence I felt at the start of the evening was a pale memory by its end – I was ready to go anywhere this game asked me.³⁸

Beautiful Mistakes

The unseen, unknown Puppetmasters were far from omnipotent. Players spotted numerous tiny inconsistencies in the game. Many of them were fixed as soon as they were mentioned on the message board, which meant that the players knew that the PMs were out there somewhere and that they were watching. They ended up turning the biggest errors into some of the best parts of the game:

Many of the sites used stock photography to portray the characters. At one point, the same photo was used mistakenly to identify two different characters: a corporate researcher and a robotic sex companion. To cover up the error, the game incorporated the duplication into the world, which resulted in one of the most compelling and best-loved pieces of the entire story.³⁹

Another mishap, caused by a miscommunication with an actor playing an A.R.M. member at the Chicago rally, meant that the players were not given all the materials needed to solve one of their puzzles. The Puppetmasters quickly designed an alternate way to convey the answer, but the players didn't realize it and kept working on ways to crack the obstacle – a password request box. A consensus emerged that a brute force hack of the site⁴⁰, while usually not something that was considered respectful of the curtain, might be permissible in this case where an outside error had thwarted the integrity of the original puzzle. The resulting effort overwhelmed the Puppetmasters and nearly crashed the entire game.⁴¹

A Place in the Hive

We kept referring to Cloudmakers as a hive-mind, a distributed intelligence made up of thousands of individuals. A small cadre of players built and executed the brute force hack and carried the entire group to the solution. As the game wore on, it leveraged the ability of a single player or a small group of players with certain specialties to provide information that would rapidly spread throughout the collective. And Cloudmakers possessed a wide variety of skills and specialties. There were the crypto experts, who could crack ciphers before the rest of us finished reading them.

There were the masters of speculation, who would extrapolate minor clues into grand theories of the master narrative. There were the provocateurs, those who could be counted on to provoke fierce arguments while staying just inside the lines of acceptable behavior to avoid being banned. And behind it all were the beleaguered Mods, fighting a constant battle to keep the whole unwieldy contraption from falling apart.

I was none of these people. If I made any contribution, it was in one small thing: as the New York Anti-Robot Militia rally was winding down, I volunteered to organize the NYC Cloudmaker meetups.⁴² Many of the people who attended the rally came back out the following week. And the week after that. I kept putting the meetings together throughout the duration of the game. And while these gatherings were ostensibly to discuss developments in the story, friendships were made, and we spoke less about the game and more about each other. (This may have something to do with several of the Mods being New York-based. After spending so much time dealing with the game, they jumped at the chance to talk about something else.) The meetings in other cities followed similar trajectories. People in less metropolitan areas drove hours to meet up with other players. Offline bonds strengthened the online hive. For some, the impact of the game itself paled in comparison to the connections made with other people through the game. (Elan Lee has said that one way to measure an ARG's success is the number of wedding invitations⁴³ he received from people who met through the game.⁴⁴)

Isn't There A Movie of This?

By the end of May, the Cloudmakers group was nearing five thousand members, so many that when game updates took place, the resulting traffic on the Yahoo Groups servers caused the site to lag severely. The onslaught showed no signs of letting up; media coverage of the game increased as the *A.I.* movie release date drew closer.

Around this time, the game announced that players would be able to buy tickets to an early preview of the film. Speculation ran wild about what to expect at the screenings and how the movie would tie into the game. A few weeks later, an in-game site popped up and allowed players to purchase tickets for a screening the day before the film's official release at the end of June.

I attended the New York advance screening with my family, who were quite perplexed when I introduced them to my posse of Cloudmakers. Walking into the theater, we were handed free posters that finally revealed the identity of the Puppetmasters – a small unit within Microsoft Games known fittingly as The Hive. Unsurprisingly, the poster also contained several clues that led to new story content. It also contained a special treat: in very faint text were written the usernames of every player who had registered to attend the Anti-Robot Militia rallies.⁴⁵ The Los Angeles screening also featured a surprise, as several of the Puppetmasters showed up and went to a post-screening dinner with the Cloudmakers in attendance.⁴⁶

At the story's conclusion, one final email was sent to the players – a goodbye from the Puppetmasters themselves⁴⁷ with a link to a detailed list of credits⁴⁸ and an invitation to participate in a post-game chat. During this and subsequent forums, the Cloudmakers finally learned about life behind the curtain. It hadn't been pretty – after the players found and solved three weeks' worth of content in the first day, the Puppetmasters spent the next six months working virtually around the clock to keep the game going.⁴⁹ PMs and Cloudmakers shared war stories, such as the near-cardiac arrest the designers had when on the second day of Cloudmakers' existence, post #125 unwittingly described the bulk of what the story would turn out to be.⁵⁰ By the end, it seemed less like two camps of game designers and players and more like one giant collaborative team.

Moving Behind The Curtain

On June 4, 1976, in Manchester, England, the Sex Pistols gave a concert to about forty people.⁵¹ Although it wasn't remarked upon at the time, that night has become legendary in the history of rock music. Many of the audience members were so inspired and galvanized by what they saw that they were inspired to form their own bands. These musicians would eventually make some of the most successful and influential music of the next twenty years.⁵²

The Beast inspired similar creative fervor in the Cloudmakers; in its wake, several grassroots efforts were undertaken. These groups produced games like Lockjaw⁵³, Chasing the Wish⁵⁴ and Metacortechs.⁵⁵ Others formed news and discussion sites like ARGN⁵⁶ and Unfiction.⁵⁷ Several used these experiences to begin careers as professional game designers.

My career was profoundly altered by the experience. In the years before The Beast, I wrote and produced short films and stage plays. Toward the end of the game, I wrote a short script about the joke character Coroner Sweborg⁵⁸, as if he were the true protagonist of the entire story. Shortly thereafter, a team that was interested in making a grassroots game set around the Sweborg character invited me to be the lead writer, and I spent the next several months creating my own pocket version of The Beast. Although the project never made it into production, the experience only fueled my interest in new media storytelling.

One aspect of the developing ARGs I found problematic was an over-reliance on puzzles that interrupted the flow of the story. The more I worked with this kind of narrative, the more I became interested in the qualities of story spread across multiple formats and channels, and less with the interactive riddles and puzzles. This line of thinking led me to start producing adaptations of classic works of literature, translated into ARG-like forms. I continue this work today, under the banner of the Loose-Fish Project.⁵⁹

2011 will be the ten-year anniversary of *The Beast*. Many of the people I met during the game are still in my life. They have become my friends and partners, mentors and colleagues. The experience that had no name became codified by the term Alternate Reality Game, and ARGs have recently become subsumed by an new umbrella term: “transmedia.” While ten years can be a long time, they are also an incredibly short time in the lifespan of a medium, and we are still at the beginning of this process of turning the information revolution into a storytelling revolution.

While debates about the definition of the term are far from settled,⁶⁰ transmedia storytelling has emerged in the past year as a hot topic in the entertainment industry⁶¹ and *Puppetmasters* and *Cloudmakers* have embedded themselves at the forefront of the movement.⁶² We often cross paths at conferences and share stages during panel discussions. Several years of answering the question “What is an ARG?” have given way to “What is transmedia?” – but the most frequent question is still “How do you make money doing that?” The running joke has become that you can’t have a panel about transmedia storytelling where the topic is actually storytelling. But as transmedia makes further inroads into mainstream entertainment⁶³, and as every new movie or television show has a Twitter account, I find myself having to explain what I do less often. I certainly get fewer perplexed stares. My conversations have shifted towards how to use transmedia storytelling as actual *storytelling* and not an obligatory marketing adjunct. I often use the metaphor of the development of cinema to parallel the development of ARGs into transmedia into...whatever it will become.

Searching for The Jazz Singer

The first cinema exhibitors were vaudeville producers. They were not inherently interested in moving pictures, but merely used them as novelty attractions to draw audiences to their stage shows. But once films started telling their own stories, they quickly progressed past being marketing gimmicks to become the dominant form of entertainment of the 20th century. It’s too early to tell if ARGs and transmedia will follow a similar track, but there are a couple of interesting parallels to be drawn.

Edwin S. Porter’s 1903 film, *The Great Train Robbery* is a landmark of early narrative cinema⁶⁴. The film concludes with a shot of a gunman firing directly at the screen. Famously, audiences of the time reacted as if the shot was real and ducked out of the way. Porter used the audience’s unfamiliarity with cinematic storytelling techniques to jar and surprise them. Almost a century later, 2000’s online experience around *The Blair Witch Project*⁶⁵ managed a similar feat, using web and viral marketing techniques to spread its horror story as if it were a documentary. Audiences unfamiliar with seeing the web as a storytelling medium were primed to be vulnerable to the film’s shocks and scares. Both *The Great Train Robbery* and *The Blair Witch Project* show early experiments in manipulating their respective media could be devastatingly effective.

1915’s *The Birth of a Nation* is considered the starting point of the modern cinema.

Its maker D.W. Griffith is credited with codifying the early language of cinema⁶⁶. Techniques such as close-ups, fade-outs and crosscutting had been pioneered and explored in shorts, but Griffith's film was the first to tie them all together into a unified feature on an epic scale. When the history of transmedia storytelling is written, I believe *The Beast* will occupy a similar place of importance. It wasn't the first to tell a story through websites and emails and site-specific live events, but it was the first to wrap them all into a coherent, cohesive, compelling whole – and the first to do it on such a grand scale.

Continuing this comparison to the present day, I place the state of ARGs and transmedia storytelling as roughly analogous to 1926, at the end of the pre-sound era when many different producers were attempting to incorporate audio into their films. These experiments had been underway since the invention of the cinema itself, with many systems and techniques having been tried and abandoned. Each failure bolstered skeptics who questioned if sound cinema would ever be possible and if anybody would even want such a thing. Those skeptics were proven wrong in 1927 by the advent of *The Jazz Singer*; this was not the first film with sound, but it was the first one to make its benefits obvious and to show that sound was the way forward⁶⁷.

In today's environment, there are new skeptics that need to be convinced. Many see Transmedia as simply a marketing tactic with little lasting value or else a jargon-y buzzword that will vanish as soon as there is a new flavor of the month. And the descendants of *The Beast* – *Puppetmasters*, *Cloudmakers*, and those who have never heard of the game but who create in its wake – are working to make a modern *Jazz Singer*, a story experience that will make it clear that the Internet is the great storytelling medium of the 21st century.

You ain't browsed, clicked or tweeted nothin' yet.

Endnotes

- 1 <http://familiasalla-es.cloudmakers.org/default2.htm>
- 2 <http://www.cloudmakers.org>
- 3 <http://www.cloudmakers.org/guide/>
- 4 <http://www.cloudmakers.org/trail/>
- 5 <http://www.aintitcool.com/display.cgi?id=8659>
- 6 <http://familiasalla-es.cloudmakers.org/letter.html>
- 7 <http://www.cloudmakers.org/guide/#chemsol>
- 8 <http://coronersweb.cloudmakers.org/>
- 9 http://www.aintitcool.com/talkback_display/8684
- 10 <http://familiasalla-es.cloudmakers.org/meditations.htm>
- 11 <http://games.groups.yahoo.com/group/cloudmakers/>
- 12 <http://familychan.cloudmakers.org/evanchanpage.html>
- 13 <http://www.cloudmakers.org/trail/>
- 14 <http://games.groups.yahoo.com/group/cloudmakers/message/248>
- 15 <http://games.groups.yahoo.com/group/cloudmakers/message/290>
- 16 It's striking that an experience so reliant on sharing and connections between far-flung players would happen before the rise of Web 2.0, social media networks and mobile computing.
- 17 <http://games.groups.yahoo.com/group/cloudmakers/message/1001>
- 18 Hon and Liggitt were joined by Andrea Phillips, Dan Fabulich, Brian Seitz and Irwin Dolobowsky in the U.S., and Adrian Hon in England.
- 19 <http://www.cloudmakers.org/media/>
- 20 <http://movies.groups.yahoo.com/group/cloudmakers-moderated/message/329>
- 21 <http://transcripts.cnn.com/TRANSCRIPTS/0106/04/lt.10.html>
- 22 <http://www.aintitcool.com/display.cgi?id=8659>
- 23 <http://games.groups.yahoo.com/group/cloudmakers/message/1145>
- 24 <http://games.groups.yahoo.com/group/cloudmakers/message/12065>
- 25 <http://games.groups.yahoo.com/group/cloudmakers/message/14739>
- 26 <http://games.groups.yahoo.com/group/cloudmakers/message/2276>
- 27 <http://games.groups.yahoo.com/group/cloudmakers/message/5748>
- 28 <http://inourimage.org/news.html>
- 29 <http://games.groups.yahoo.com/group/cloudmakers/message/6684>
- 30 <http://games.groups.yahoo.com/group/cloudmakers/message/6720>
- 31 <http://games.groups.yahoo.com/group/cloudmakers/message/7050>
- 32 <http://games.groups.yahoo.com/group/cloudmakers/message/6863>
- 33 <http://games.groups.yahoo.com/group/cloudmakers/message/43617>
- 34 <http://games.groups.yahoo.com/group/cloudmakers/message/7004>
- 35 While the contact between the Puppetmasters and the Moderators was infrequent and no game information was leaked, when this correspondence was revealed it provoked hurt feelings from several Cloudmakers. The controversy was amplified when it was learned that in the waning days of the game, the Moderators were secretly flown to Washington to meet the Puppetmasters.
- 36 <http://unite-and-resist.cloudmakers.org/>
- 37 <http://www.cloudmakers.org/guide/index2.shtml#4.0armrally>
- 38 The Puppetmasters would make continuous use of real-world events to great effect in their later games. In "I Love Bees," players were required to be at specific payphones at specific times, and some braved hurricanes to get there. At the conclusion of "Year Zero," a group of players were surprised with a private Nine Inch Nails concert.
- 39 <http://bangaloreworldu-in.co.cloudmakers.org/salla/oldspanishdust/thestepself.htm>
- 40 <http://games.groups.yahoo.com/group/cloudmakers/message/11734>
- 41 <http://games.groups.yahoo.com/group/cloudmakers/message/31315>
- 42 <http://games.groups.yahoo.com/group/cloudmakers/message/9846>
- 43 <http://en.oreilly.com/et2008/public/schedule/detail/1570>
- 44 People who met and formed relationships through The Beast were called "Cloudmaker Couples."
- 45 <http://www.cloudmakers.org/trail/#3.75>
- 46 <http://movies.groups.yahoo.com/group/cloudmakers-moderated/message/1021>
- 47 <http://polipulse.cloudmakers.org/>
- 48 <http://games.groups.yahoo.com/group/cloudmakers/message/42123>

- 49 <http://familiasalla-es.cloudmakers.org/credits/>
- 50 <http://jaybushman.tumblr.com/post/695248838/this-is-not-a-game-2002-edition>
- 51 <http://games.groups.yahoo.com/group/cloudmakers/message/125>
- 52 http://en.wikipedia.org/wiki/Free_Trade_Hall#Famous_events
- 53 The events of that night and its impact on the musicians who would form bands such as Joy Division, The Smiths, The Fall and The Buzzcocks are chronicled in the book “I Swear I Was There: The Gig That Changed The World.” Recreations of the performance and its effects are featured in the films “24 Hour Party People” and “Control.”
- 54 <http://www.arghive.com/lockjaw/>
- 55 <http://www.varin.org/ctw/Guide/start.html>
- 56 http://metacortex.netninja.com/my_notes/history.html
- 57 <http://www.argn.com>
- 58 <http://www.unfiction.com/>
- 59 <http://jaybushman.com/wp-content/uploads/2010/01/CS-TAB.pdf>
- 60 <http://jaybushman.com/category/lfp/>
- 61 http://www.australiacouncil.gov.au/__data/assets/pdf_file/0006/42648/New_WRITING_Universe.pdf
- 62 <http://legacy.tft.ucla.edu/transmedia/>
- 63 A sampling: The lead creators of The Beast – Jordan Weisman, Sean Stewart and Elan Lee t – left Microsoft to form 42 Entertainment, where they produced some of the most high-profile ARGs of the last decade, including “I Love Bees”, “Year Zero” and “Why So Serious?”. Weisman now runs Smith & Tinker while Stewart and Lee head Fourth Wall Studios. Moderators Dan Hon and Adrian Hon designed and produced the game “Perplex City” and then formed Six To Start, one of the U.K.’s leading multi-platform entertainment companies. Dan Hon has recently joined Wieden & Kennedy as a Senior Creative. Moderator Andrea Phillips co-wrote the “Perplex City” game and has produced award-winning interactive campaigns for “Routes” and the movie 2012. She also served as the first Chairperson of the International Game Developers Association’s Special Interest Group on Alternate Reality Games. After founding ARGN and helping to start Unfiction, Cloudmaker Steve Peters was a designer on the grassroots ARG “Metacortechs”. He later worked for 42 Entertainment as Director of Experience Design. Peters left 42 Entertainment along with Hugo-award winning author Maureen McHugh and producer Behnam Karbassi to form No Mimes Media.
- 64 <http://news.tubefilter.tv/2010/04/06/producers-guild-officially-sanctions-transmedia-producer-credit/>
- 65 <http://www.filmsite.org/pre20sintro2.html>
- 66 <http://www.filmreference.com/encyclopedia/Independent-Film-Road-Movies/Internet-THE-BLAIR-WITCH-PROJECT-PARADIGM-AND-ONLINE-FAN-DISOURSE.html>
- 67 http://en.wikipedia.org/wiki/The_Birth_of_a_Nation#Significance
- 68 [http://en.wikipedia.org/wiki/The_Jazz_Singer_\(1927_film\)#Premiere_and_reception](http://en.wikipedia.org/wiki/The_Jazz_Singer_(1927_film)#Premiere_and_reception)

“

*It's a wonderful moment
of frisson as you realize
that your time with the
game has been whirled
away within the context
of the story.*

”

DREW DAVIDSON

PRINCE OF PERSIA: THE SANDS OF TIME: THE STORY OF PLAYING A GAME

Introduction

This essay is an update of an earlier article I wrote for the journal, *Games and Culture*, back in 2008. It was one of my first attempts to fully analyze a videogame as thoroughly as I could, and served as an inspiration for *Well Played 1.0*. With that in mind, I thought it would be interesting to include it in the second edition of *Well Played* to share how these books on videogame analysis got started.

That said, I'm going to analyze and interpret the experience of playing the videogame, *Prince of Persia: The Sands of Time*, by comparing two diagrams, one that illustrates the plot of the game's story and another that delineates the stages of interactivity. Performing a close reading of this game from these perspectives enables an exploration of how the game's story relates to the interactive elements of its gameplay.

The first diagram used is a classic literary plot diagram (Davidson 2005) shown in Figure 1.

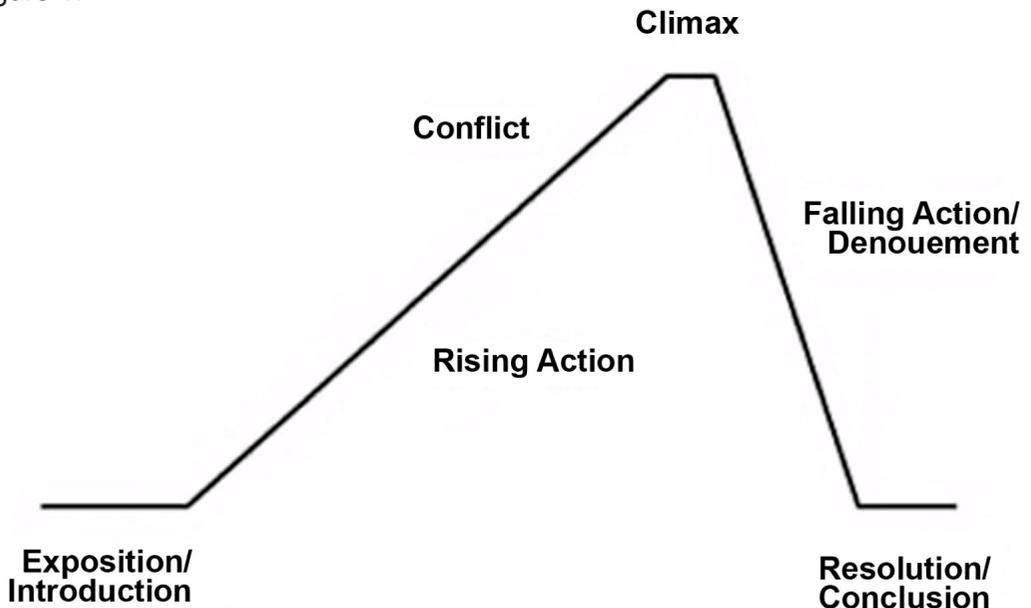


Figure 1
A classic literary plot diagram (Davidson, 2005).

Using this diagram, the story of *Prince of Persia* is explicated into its key moments across the experience of the game. Next, a diagram illustrating the stages of interactivity is used (see Figure 2).

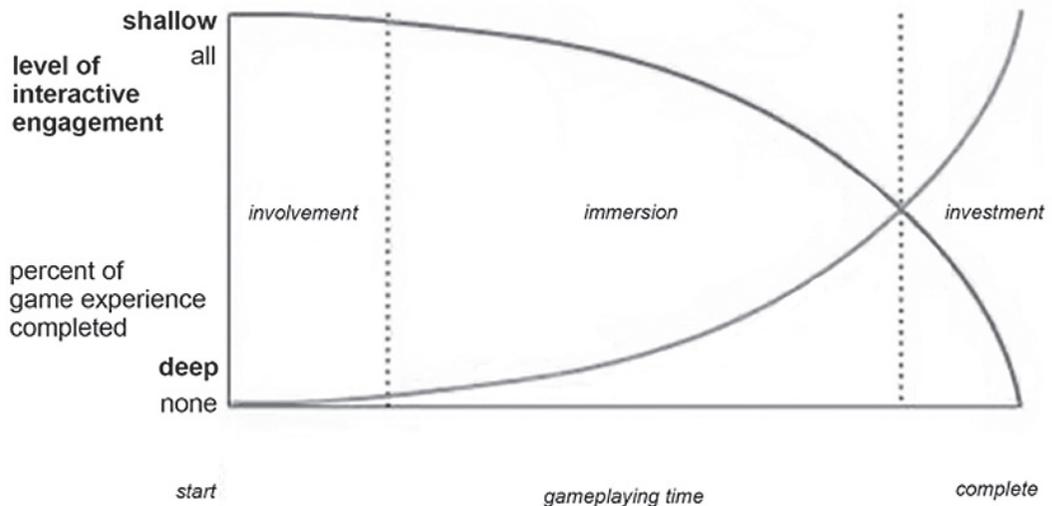


Figure 2.
The three levels of interactivity; involvement, immersion, investment (Davidson, 2005).

This interactive diagram was developed in a previous paper (Davidson 2005) and outlines the interactive experience of playing a game. Briefly, the experience is posited to have 3 stages: involvement – being initially introduced into the game; immersion – becoming engaged with the gameplay and the gameworld; and investment – feeling compelled to successfully complete the game. The interactive diagram illustrates these three stages. The x-axis shows the relationship of the time spent playing the game, from start to completion. The y-axis shows both the level of interactive engagement, down from shallow to deep, and the percentage of game experienced, up from none to all.

Comparing the results from both the above diagrams helps illustrate the relationship between the game’s story and its gameplay and how they can fit together to create a satisfying interactive experience. Of course, this approach wouldn’t necessarily be the most apt for analyzing all the different genres and types of games, but I think it is a fecund way to explore the *Prince of Persia: The Sands of Time*¹.

One method I don’t directly explore is the procedural, computational nature of how this experience is created. Mateas (2005) and Bogost (2007) have written on the importance of procedural literacy, but for the purposes of this interpretation, I keep

the focus more on a gaming literacy (GameLab Institute of Play 2007) and explore the gameplay and narrative. Also, in performing this interpretation, Bogost's (2007) ideas on "unit operations" as an analytical methodology are not explicated in detail, but inspire an exploration of how the gameplay and story can be seen as units of meaning that inter-relate in a variety of ways.

Full Disclosure on Game Analysis

The *Prince of Persia* is a classic gaming franchise that started out in 1989 as a 2D side-scroller with strong platforming elements of running, jumping and climbing through environmental puzzles. *The Prince of Persia: The Sands of Time* (2003) represents a re-imagining of the franchise into an action-adventure game in the 3D realm. I chose this game specifically because of its overt attention to story and how it incorporates the act of storytelling into the experience of playing the game. I actually played the original game, but did not keep up with the franchise until this new release and have only briefly played the later releases, *Prince of Persia: The Warrior Within* (2004), *Prince of Persia: The Two Thrones* (2005), and I haven't played *Battles of Prince of Persia* (2005) or *Prince of Persia: Rival Swords* (2007) or *Prince of Persia: Fallen King* (2008), but I completed *Prince of Persia* (2008) and it's *Epilogue* (2009) and I've currently working my way through *Prince of Persia: The Forgotten Sands* (2010) which came out in conjunction with the *Prince of Persia: The Sands of Time* live-action adventure movie (which I have yet to see). So while not a completist, I am a fan of the franchise. At the time of this writing, I have played through *The Prince of Persia: The Sands of Time* four times; the first time solely on my own, the second with help from GameFAQs to ensure I didn't miss any parts of the game, the third mostly on my own, but with some references back to GameFAQs to doublecheck details for an presentation to MIT4, held in Cambridge, MA in 2005 (Davidson 2005), and the fourth to get a variety of save files to help present these interpretative ideas at the Games, Learning & Society Conference 3.0 held in Madison, WI in July, 2007 (Davidson, 2007). Each time took roughly 10-12 hours of gameplay in order to successfully complete the game. Also, I should note that 3 of my experiences are with the Nintendo GameCube version of the game, but the 4th was with the Sony Playstation 2. The game was similar enough across the two platforms that it doesn't merit more detailed discussion in this regard.

With this experience under my belt, I feel comfortable analyzing and interpreting the gameplay and narrative of this game and how they intertwine. A quick aside: for those who have yet to play this game, this paper contains a lot of spoilers. I will progress linearly through my experience of playing the game and uncovering the attendant story. As I describe this experience, I will try to clearly delineate the cinematic scenes that I watched as a spectator from the interactive scenes in which I was actively playing as the Prince.

Analysis of Narrative & Gameplay

Introductory Plot Exposition & Gameplay Involvement



Figure 3.
Screenshot of the Start of Prince of Persia (Ubisoft 2003) from MobyGames.com.

The *Prince of Persia: The Sands of Time* starts with a short teaser animated movie before you hit any buttons. The movie slowly pans over a desert/oasis landscape that morphs into a woman asleep in bed. A raindrop plops into a puddle and the woman awakens. When you press “Start”, you find yourself in control of the Prince on a terrace at night, light spills through the curtains from the room within providing some indirect control in tempting you to enter (see Figure 3). To start the game, you have to walk into the bright light in the room, which triggers an introductory movie. Here you are shown a basic overview of the initial exposition that starts the plot. The Prince speaks in a voice-over discussing time, which he claims is not like a river, but more like a storm. He invites you to sit and hear a tale told like none you’ve ever heard. The Prince with his father, the King, and their army approach

a city. A Vizier stabs someone and the battle starts as the King's forces invade the city. It seems that the Vizier and the King were working together. The Prince wants to impress his father by winning the treasure. He gallops his mount forward as the structure collapses and the Prince is thrown from his horse into the city. This scene ends with the Prince stating that he wants the honor and glory for his father. It's very economical with time, squeezing information in quickly before allowing you control to play. So in a short amount of time (just over two minutes really) you are able to start playing.



Figure 4.
Screenshot with interface elements (Ubisoft 2003) from GamersHell.com.

You now have direct control over the Prince character as gameplay begins. You have a very unobtrusive interface element with a crooked health bar in the upper left of the screen (see Figure 4). Additional elements are added later as you progress through the game; such as the sand tanks and the power tanks that show the number of times you can manipulate time, and the round circle of time that shows how much time you can control. Plus when you get into fights with Farah (the daughter of the Sultan) at your side, her health bar appears as a red bow in

the upper right of the screen. You immediately begin to see textual instructions on how to use the controller to direct the Prince's actions through the 3D game world. These instructions appear across the bottom of the screen for a short time and are in relation to the context of the actions you should be performing to best proceed. You are first directed on which analog stick controls the direction in which the Prince moves, and which stick controls the camera angle. The environment is being rearranged by the raging battle around the Prince. The directions in which you are able to move become determined by the destruction of the environments. These changes set up the puzzling style of platforming gameplay. In essence, you have to figure out how to move through the environments in order to proceed through the game. And of course, there are the classic adventure game puzzles that require you to move boxes around. So while there is a feeling of open-ended choices, it is actually a linear game that uses environmental puzzles to direct your progress. So, you begin to learn the rather amazing physical abilities of the Prince as you can run, jump, climb and drop your way through the areas.

Interestingly enough, you automatically climb small ledges (with no button press) but you are given instructions on which button to push to jump and which buttons enable you to climb up surfaces and drop from ledges. Often these types of actions and button presses are context specific; for instance, pressing the (x) button (on the Gamecube: it's the (O) button on the PS2) to drop only has an effect in the game if you have the Prince in a position within the environment in which he can drop. Also, if you do nothing at all, the Prince goes into short idle animation cycles showing him looking around, stretching, dusting himself off, etc. A nice visual touch that starts conveying the personality of the Prince. These initial textual instructions and the environmental contexts enable you to begin developing intuitive control of moving the Prince through this world.

At this point of the experience, a short plot exposition has been given and the player is in the involvement stage of interactivity, being introduced to how to play the game. It seems like common sense that exposition and involvement occur at first, but the *Prince of Persia: The Sands of Time* does a good job illustrating how to do this well. I think it's important to give a player some exposition in order to pique interest as involvement begins, but too much exposition for too long can be a distraction from involvement (especially if it's a long scene that does not allow a player to skip it all). Concurrently, it's crucial to afford the player the opportunity to play as quickly as possible so that the interactive experience of the gameplay can start. In terms of units, we are seeing the physics of the gameworld and abilities of the Prince to move through them. This is interlaced with the Prince's voice-over as he talks to himself (and you) adding to the story.

Platforming & Puzzling

The start of the *Prince of Persia: The Sands of Time* has a rather short moment of control (walking the Prince into the brightly lit room) which may seem extraneous, but enables you to actively begin the game in context. The introductory movie is short and informative and quickly drops you directly out of the cinematic and into a contiguous playable environment. This experience gives the player a nice introduction into the gameplay elements with specifically designed environmental challenges and corresponding textual instructions that help guide you into moving through the world.



Figure 5.

Screenshot showing platforming gameplay (Ubisoft 2003) from MobyGames.com.

Back in the game, you quickly discover that the Prince can run up and across spans of wall (Figure 5) as well as jump and climb. You are also shown how to break through small barriers with your sword. Often there will be quick cinematic cuts when you perform exciting physical feats: the camera launches out and gives you a dramatic view of the Prince in action (sometimes in slow motion as well).

These in-game cinematics are units that go beyond the gameplay itself into a Hollywood-style display of “your” amazing feats. You get to watch how the Prince is incredibly athletic. And when you happen to die by unsuccessfully completing an acrobatic feat, the Prince speaks in voice-over saying, “Wait, wait . . . that is not how it happened... Now, where was I?” and you are reset to the spot right before you accidentally leapt to your demise (more below on distinctions of this experience as you gain some control over time). The voice-overs continue the development of the Prince’s character, and they also foreground that this experience is a story the Prince is relating. Another example of this is when you pause the game, the Prince asks, “Shall I go on?” and when you resume play he says, “Then I shall continue.”

Fighting & Cinematics

Now, after successfully completing a series of environmental puzzles the player begins to reach a point of familiarity with the control schema for platforming in the game. Next you are gently introduced to your first battle. I say gently, because it is a very easy fight against one soldier, filled with textual instructions on how to use the controller to enable the Prince to attack, dodge and block (see Figure 6). You see the enemy first, and as you approach you get quick little cinematics of the enemy posturing that serves as an alert to the change from platforming to fighting.



Figure 6.
Screenshot showing fighting gameplay (Ubisoft 2003) from GamersHell.com.

Again, there are some cinematic cuts that dramatically show your fighting moves, but there is a difference with these cuts in comparison to the platforming cinematic cuts. The fighting cinematics can actually interfere with the gameplay during fights; whereas, I never had such problems with the platforming cinematics. During fighting, when the camera launches to show a different view and then zooms back to fighting, I often lost a sense of direction in relation to where the enemies are located and so there is a moment needed to re-orient myself within the action. In these instances, the cinematic camera effects interfere with the gameplay, while during platforming they are better at adding a sense of drama to what you are doing as the Prince. Interestingly, I noticed many more camera angle problems on the PS2 (in both fighting and platforming sections) than I recall on the GameCube, which definitely takes away from any sense of drama as you get lost in deciphering the perspective.

If you are hit during fights, your health bar will reflect the damage. This gives you a sense of how you're managing the fight. Once you vanquish your foes, you can sheath your sword or it will occur automatically, which is a nice visual indication that the fight is over and you are moving into the platforming elements of the game. This makes a clear distinction for the player about the two units, or major types of gameplay (platforming/puzzling and fighting) that alternate throughout the rest of the game.

Gameplay Immersion & Getting into the Rhythm

Next, you come upon another fight (this time with two soldiers); like the series of initial platforming puzzles, you are being thrown several small fights in a row. This is a great contextual in-game tutorial of the gameplay elements that helps the player proceed through the experience of playing this game. After this fight, you are introduced to the element of controlling your health. This is done by drinking water from any of the fountains around. You get a quick cinematic of the Prince drinking (with a little trill of music). When you drink, your health bar is replenished to full (the time it takes depends on how much damage you've received).

A rhythm of the gameplay is beginning to develop in this experience, an alternation between fighting and platforming. We are seeing how these different units of gameplay can be combined for more intricate challenges. At this time (about 10-20 minutes into playing) the immersion stage of interactivity is beginning. No new information towards the plot has been revealed, although with the voice-over asides, there is a sense of character development with the Prince and his desire to win the treasure. Along with these voice-overs, the general action of fighting and progressing through space carries the experience forward. So, the foundational gameplay elements have been covered and familiarity with the interactive experience is developing.

A new wrinkle is introduced with the addition of contextual cinematics that occur when you enter a new area. These cinematics give an overview of the area (which feels somewhat akin to a short level) panning away from the Prince to the exit of the area and back across; showing the environmental puzzles or the enemies or both, and giving a sense of what needs to be done in order to progress (the mission in this level as it were). You also reach the first save checkpoint. The *Prince of Persia: The Sands of Time* uses the mechanic of checkpoints spread out across the environments to enable a player to save the game progress (more below on the development of the method established for these checkpoints that differs from the first checkpoint). Each time you reach a checkpoint there is the option to save, quit, or continue and the storytelling element is foregrounded again with the Prince asking, "Shall I continue my story from here the next time we're interrupted?" When you save, he says, "Done, I'll start the story from here next time." If you choose to

quit, the Prince asks, “Do you wish me to leave before finishing my story?” and if you choose ‘yes’ he says, “As you wish,” if you choose ‘no’ he says, “Then I shall continue.” Each checkpoint is named (e.g. The Maharajah’s Treasure Vaults, Atop a Bird Cage, The Hall of Learning , etc.) and this gives a sense of chapters in a story as well as a narrative flourish to the game’s menu mechanics. Also, the general Pause menu enables the player to continue playing, go into game options (sound, display, camera, controller) or quit.

Rising Action & Saving Progress

You are now fully using the gameplay mechanics learned so far to navigate through these environmental puzzles and fight through enemies, and a new element is added. Moving defenses (saws and rotating columns with hooks and such) require an increase in the skill with which you need to perform in order to get through the rooms, courtyards and areas. Concurrently, the plot moves into rising action. You watch a cinematic of the magnificent treasure, the hourglass and the dagger of time, and the Prince’s voice-over urges you to get the dagger. This requires some intricate puzzle platforming through the environments.

You arrive at an extensive cinematic cutscene that distills some plot information much like the introductory movie did. You get the dagger of time and watch the Prince push the button on the handle and reverse the flow of time, which enables him to escape the collapsing ceiling. After a short bit of gameplay in which you exit the room, the cinematic shows the victorious King take the spoils of war, including the hourglass and slaves (along with the woman from the teaser trailer at the very start of the game). The entourage journeys forth to Persia, and then enters a grand ballroom where the King presents the recently won treasures to the Sultan. The woman from the group of slaves is seen hiding up in the shadows. The Vizier gets the Prince to release the sands of time from the hourglass by inserting the dagger into the hourglass. This causes an immediate and immense sandstorm to erupt and the sands swirl around, turning everyone touched into some magical form of sand creatures. In the chaos, everyone rushes to flee, and the mysterious woman manages to escape.

The Prince turns to fight the approaching sand creatures and gameplay is resumed. In a voice-over he explains that he realizes that he was spared because he held the dagger. For the first time, you are fighting creatures instead of soldiers. As you strike them down, you hear the woman yelling out to use the dagger to absorb the sand from them so that they evaporate and stay down, otherwise they rise back up to fight more. So, you now receive some gameplay hints from characters within the context of the game itself as well as receiving textual instructions on how to use the dagger. You also see up in the interface the addition of small circles that begin to fill up as you capture sand from the fallen creatures and you get instructions on using the dagger to shift time and freeze creatures.

This is the introduction of another interesting gameplay mechanic, the ability to control time. Video games are a great example of Bloom's thoughts on influence in hyperdrive, with each and every new game building on standard genre gameplay conventions and adding some new features. So internally, the Prince of Persia: The Sands of Time develops its gameplay, while in the context of the genre of action adventure games, it adds the mixing of platforming and fighting along with the ability to control time. This ability comes in quite handy as you progress through the game. Eventually you will gain the power to manipulate time in a variety of ways: revival, delay, restraint, haste and destiny. So the units of story and gameplay are both increasing in complexity and in relation to each other as you progress.



Figure 7.
Screenshot showing a Save Checkpoint (Ubisoft 2003) from GamersHell.com.

As you fight, you see a column of light forming in the room with you. Once you finish this fight with creatures, a cinematic starts immediately. The woman runs away and the Prince walks into the column of light. A rapid sepia-toned vision flashes by showing the Prince performing acrobatic feats and fighting more creatures. You are then asked if you would like to save or view the vision again (these columns of light,

as seen in Figure 7, are how checkpoints are marked throughout the rest of the game). So, saving only occurs after successfully completing a fight, which causes these light columns to develop. Your reward is the opportunity to save. Once you save and return to play, you see a brief cinematic of the Prince waking up beside the column of light with his voice-over assuring you that the horrors he is relating are true. You then walk into a room that you just saw in the vision. So it becomes apparent that the visions give you a glimpse of the near future while at the same time serving a gameplay purpose of giving you a sense of what you are supposed to do in order to proceed.

Following this significant cinematic, the plot is fully into rising action as the shape of the conflict becomes apparent, with the Vizier as the major villain in the story. Also, the immersion stage is firmly engaged as the rhythms of gameplay are established and the player truly has to use all the skills learned in order to win the fights and solve the environmental puzzles. These units are operating to build the experience of playing the game.

A Fork in the Path to the Fountain of Health

Back in the game, you exit the ballroom through the gate that the woman ran through, and she is just ahead of you (the Prince yells out for her to wait) but the ceiling collapses and you can't follow her, so you have to enter another room. Here is where you first see a little shining pile of sand that you can absorb with your dagger. This helps add more sand to the dagger so you can control time even more. These little piles will be sprinkled around environments from here on out. You now have some environmental platforming to do in order to proceed to a point in which you reach another fight with creatures. After successfully completing this fight you get a column of light (a save checkpoint) but with this one, you get to direct the Prince into the column in order to save your progress through the game. When you walk into the column you see another vision of the future ahead of you.

As you proceed through these rooms, you come to one of the few times in the game in which you actually can get a little off the linear progress of the game (a fork in the path). You have the opportunity to continue dropping down some rubble, or going through a hole in the wall. If you choose to go through the hole you find yourself running down a hall with sheer curtains that you pass through as it slowly gets darker and fades to black. Next, you are in a magical world, with ethereally lit bridges that you cross to a central fountain with shimmering water.



Figure 8.
Screenshot of the Prince at the Magic Fountain (Ubisoft 2003) IGN.com.

As you approach, a cinematic takes over showing the Prince drinking the water, as shown in Figure 8. Whispering tones accompany his entranced look as the scene fades to black again. You are then returned to the moment right before you entered the mysterious hallway. The hole in the wall is now gone and your health bar increases in length. In a voice-over, the Prince says that he feels better than ever before. So now the player has the challenge of finding this new unit, these other potential “forks in the path” that enable an increase in the Prince’s health, which really helps as the fights and platforming get more difficult throughout the game.

Merging Gameplay & Narrative



Figure 9.
Screenshot showing the Prince meeting Farah (Ubisoft 2003) from GamersHell.com.

As you continue, you get a quick cinematic when the woman pulls the Prince aside, introducing herself as Farah, daughter of the Sultan (see Figure 9). She wants the dagger, and the Prince doesn't trust her, so he doesn't give it to her. The camera focuses on her scarab necklace (possibly hinting as to why she survived the sands of time). As they talk, large scarabs approach. The conversation abruptly ends with an attack by the scarabs and the Prince yells to Farah to run. You are now back in control and can quickly fight off the scarabs. As you continue on, you come out to an open courtyard; it is night, and another short cinematic reveals several large birds winging the hourglass up and away, seemingly toward the top of a tall tower.

Next, a new facet in the gameplay is introduced; handles that you have to pull in order to open a way forward, but that also engage some time-based mechanism (e.g. a door that slowly closes as you race to get to, and through, it). This first handle task is relatively easy, you pull the handle and a bridge extends for you. You have

to run across the bridge before it retracts completely. Now you've arrived at one of the more unique puzzles in the game. A guard up in the distance yells for you to help him activate the defense systems to thwart the monsters. It's a task that requires both of you, but mostly you. You are in the middle of this round cylinder of a room on a round platform that you can raise and rotate (see Figure 10). You need to pick up four long axles in the proper order so that you can raise and rotate them through a maze of channels in the wall of the cylinder and insert them correctly to activate the defense systems. The guard, like Farah before, yells out general instructions and encouragement. Finally, you both pull hanging levers, and then the guard (out of sight, but not out of sound) is attacked by creatures and you hear him die. Puzzle solved, you now have to fight more of these creatures to continue onward.



Figure 10.
Screenshot of the Castle Defense Puzzle (Ubisoft 2003) from TeamXBox.com.

This puzzle is interesting in two ways in regards to the story and gameplay. In terms of gameplay, a player has to complete it in order to progress. With the story, it serves as a moment where the Prince meets another survivor and they work together to thwart the creatures. But after playing through the game a bit more, I realized that these defense systems are somewhat disingenuous. They really just set up more challenges for a player, with more saws and blades to avoid as the player moves

forward. On the one hand, hindsight made me wish that I had not activated the defense systems. On the other hand, the game only advances when the puzzle is successfully solved. It is through this moment of story that new facets of gameplay are explained and introduced. Also, I found it wonderfully engaging and immersive to be in the role of the Prince and have these units of meaning combine in such a way that I wished that I had not done something. At this moment, the story elements were actually helping me become more immersed in the experience of the game. I regretted a gameplay action I had to take and now had to suffer the consequences of solving the puzzle and navigate through all these defense systems that I brought upon myself as the Prince.

The Balance of Meaning & Mastery

Back in the game, you now have your next handle to pull. This time it is a little more difficult than the first, as you have to run and jump through moving buzzsaws, spikes in the floor and moving spiked columns. The game continues to ratchet up the elements involved in the platforming aspects of the game, causing you to advance your mastery of the gameplay mechanics. In keeping with this, you now find levers you have to jump up to pull, as well as switches high up on walls that you have to push, each adding a little wrinkle to how you go about puzzling through the environment. Interspersed throughout are several battles that you fight through, which also ratchet up with different types of creatures (guards, dancers, large imperial guards, etc) and more advanced fighting moves, as well as plenty of water to drink to keep your health up. You also find another branch that allows you to lengthen your health bar so that you can better survive the trials ahead.

At this point (roughly around 3-4 hours of gameplay) the story is continuing along the rising action. It seems a potential ally, Farah, has been introduced, and large things are afoot as the hourglass has been absconded with. In terms of gameplay, the immersion stage is well established, the game has a solid rhythm of fighting and platforming with new wrinkles being introduced to both, and the helpful addition of the ability to control time (rewind, slow down or speed up time). So the player is using all the skills learned to survive longer fights with a variety of creatures that require fighting in different ways to defeat them. Also, the player is navigating through more extended sequences of platforming with more intricate challenges to maneuver in order to progress forward through the game. Again, this would seem to be exactly where you would want to be as a player, but the *Prince of Persia: The Sands of Time* has done a good job of mixing these units together to continue challenging you as you progress. The experience is kept pleasurably frustrating; it's not too easy, nor is it too hard. Ideally you get increasing challenges followed by a reward and possibly increased abilities that make it a little less challenging for a bit, but soon ramps up again. Crawford (1984) refers to this as a smooth learning curve

in which a player is enabled to successfully advance through the game. Costikyan (2001) notes that “play is how we learn” and move from one stage to the next in a game. Csikszentmihalyi’s (1991) notion of flow, in which a person achieves an optimal experience with a high degree of focus and enjoyment, is an apt method for discussing this process as well. And Gee (2004) notes that well designed games teach us how to play them through rhythmic, repeating structures that enable a player to master how to play the game. In terms of unit operations, the units are being juxtaposed well so that the meaning and mastery builds as you play.

Imbalance & Deeper Involvement

I mention these ideas because I soon reach a point in the game in which I feel the balance is lost somewhat. In a cinematic, the Prince returns to the large ballroom from which the sands of time were unleashed. Farah is already there, bow and arrow in hand, fending off many creatures. The Prince races to her side and discovers that one of the creatures is recognizably his father, shown in Figure 11 (a big point in the story indeed). You are immediately dropped back into gameplay in one of the toughest (and longest) fights of the entire game. I find it somewhat fitting that this pivotal point in the story (a fight with your creature-father) is such a grueling affair. Also, it is your first fight with Farah’s support. You see her healthbar in the upper right, and she shoots at the creatures from afar. You are now responsible for keeping her alive during fights, so this adds to the challenge as well. Although during this fight, the space is large enough that you can move away from her and the creatures chase after you.



Figure 11.
Screenshot of the fight with the Prince's Father (Ubisoft 2003) from GameSpy.com.

That said, this fight is also significantly longer and tougher than preceding fights, enough so that I almost quit playing the game entirely the first time I reached this point because I had such difficulty successfully finishing this fight with wave after wave after wave of creatures. This is one of the first fights where the creatures combine attacks more, and often I ended up knocked to the ground with four creatures surrounding me, attacking until I died. The first time through it must have taken me a dozen or so tries to finish it, the second time probably two or three, the third time another four or five, although the fourth time it only took one try. Again, I find some resonance between the gameplay and the story with this being a difficult fight with your creature-father (who takes forever to dispatch), but it was really close to being too hard, and I found myself slipping out of an immersion stage and into wanting to quit. Yet, I had enough time spent and enough skill development from the preceding experiences, that I was always able to eventually win this fight (each time I did, it was more a sense of relief than anything else). So, this was the first time during the game that I felt the balance of units was a little off, the challenge was maybe a bit too extreme, but it wasn't insurmountable and I was able to get back into the gameplay and story as I progressed.

Narrative & Gameplay Reconnect

Once you do finish the fight, you have a cinematic in which the Prince rips off his sleeve in order to bind a wound on his arm. He slowly loses his shirt throughout the game, his wardrobe showing the entropic effects of the difficulties he is facing. Even with some control over time, entropy still occurs as he loses his shirt and the environments are ravaged by the destructive sands. The Prince then walks directly into a light column with Farah protesting as he does. Directly following this save checkpoint, a cinematic shows the Prince and Farah agreeing to work together to get to the top of the tower (see Figure 12) where the hourglass is located and try to put an end to this madness. Farah seems to know how the dagger needs to be used in order to return the sands of time back to their proper place within the hourglass. So you have a direct gameplay goal (to the top of the tower!) related to you through the story.



Figure 12.
Screenshot of the tower (Ubisoft 2003) from TeamXBox.com.

The story and gameplay align again as Farah is now definitely an ally, which means a new facet for the player in both fighting and platforming. With fighting, she is now a part of it, so the player has to protect her during these fights. With platforming, the player now has to puzzle through in ways that enable her to move along with you. She can't jump as far or as high, but she can squeeze through cracks and tunnels that the Prince is too big to fit through. So the sense of working together is heightened as you literally have to work with her now to puzzle through the

environments. I should note that you are never in control of Farah as a character you can play. The story is related from the perspective of the Prince continually throughout the experience and he is the only character you get to control.

Deeper Immersion

Back in the game, the rhythm is quickly reestablished as you platform and fight your way onward. The platforming gets more challenging not only because you are working together with Farah, but you are beginning to work your way up towards of the tower, so you begin having more and more chances to fall to your death (which can be reversed with control of time, but only as long as you have enough sand in your sand tanks). You now get attacked at times by large birds and bats, which try to knock you to a fall. Also, you can continue to find and follow branches that enable you to extend your healthbar. You have many puzzles that you work in coordination with Farah, and many tough fights throughout. Along with the increase in health, you can find newer, better swords that are more powerful and enable you to break through more things and deal out more damage to creatures. This really helps as the fights get harder and the types of creatures get tougher to beat as they get larger and more coordinated in their attacks.

A really nice touch throughout the game is the variety of environments, shown in Figure 13. The art direction of the palace grounds, full of rooms, courtyards and such, is shown through a variety of color palettes, as well as different types of environmental challenges. For example, you navigate through a warehouse, an aviary, high cliffs, royal baths, etc. This variety gives a sense that progress is being made and helps keep the game from feeling repetitive. Concurrently, the sound design complements the visuals, with a variety of soundtracks, all touched with a middle eastern feel and specific to situations (i.e. fights scenes have more of a pounding element, whereas beautiful outdoor scenes are more ambient). Also, the sound effects of the in-game actions add to the experience; crumbling rocks, the swish of the Prince's sword, and the sounds of combat (although I found the shrieks of the creatures to be annoying, especially during long fights). And the vocal talent is quite good, conveying a sense of personality for the characters. The visuals and audio units combine together to give a nice magical Arabian Nights feel to the story experienced.



Figure 13.
Screenshots of various environments (Ubisoft 2003) from GamersHell.com.

The immersion stage is solidly engaged with the rhythmic gameplay, and the rising action is now directed toward a specific goal, the hourglass at the top of the tower. As Costikyan (1994) notes, a game should require decision-making and management of resources in pursuit of a goal. This adds to both the story and the gameplay. A fun little easter egg occurs during this part of the game. Easter eggs are little hidden secrets that you can ferret out and often give you bonus material. In this game, you come to a rotating switch; a 90 degree rotation opens the gate and you can go through, but if you rotate it 90 degrees more and then break down the wall (which looks solid) you open up a hole and unlock a playable version of the original, 2D Prince of Persia game. You can save your progress in the Sands of Time and start playing the original game, and you can now access the original game from the main menu.

Back in the current game, daybreak arrives, giving a nice sense of time to the proceedings and further appreciation for the indefatigable Prince. You continue on with more platforming and fighting. During this part of the game, you come to an interesting cinematic after a checkpoint save. The Prince wakes up with his head

in Farah's lap as she calls him her love. The Prince immediately jumps up in a bit of confusion, and you're back into gameplay with a love story in the air. Shortly thereafter you have a new type of puzzle; pushing mirrors around to reflect light throughout a room in order to hit a crystal with a beam of light. You continue onward with Farah until you reach a point where the floor collapses out from under you, causing a cinematic to kick in where the Prince falls, blacks out, and then wakes up alone in the filthy dungeons. The Prince rips of his ruined shirt and now goes bare-chested for the rest of the game (see Figure 14). You are separated from Farah, so finding her has now become a plot point and a gameplay goal.



Figure 14.

Image showing the stages of the Prince's shirt and swords (Ubisoft 2003) from IGN.com.

Getting Invested & Fighting Climax

You work your way up out of the dungeons, fighting and platforming your way back to Farah. When you do get up and out, you find her in the midst of a fight, where you join in to help. After this fight, when you save you have an interesting vision in which you see Farah taking the dagger of time. In a cinematic, the Prince wakes up and becomes a little bit distrusting of Farah, complicating the love story. And so the rising action of the story is in full swing and the investment stage of interactivity is beginning as the end of the game is in sight. You've been playing for about 8-9 hours, and with this complication related, the player has now reached the huge tower in which the hourglass sits at the top. Units in both the story and gameplay are aligning to further the experience and the end of your goal is within reach, you just have to make it to the top.

And here is the second time in the game where I feel the balance is a little off, but again I think it also fits within the framework of the story. As you enter the bottom of the tower you come to a small round room, and Farah runs in so you have to follow. The gates slam shut and the room begins to rise. As it's rising, some of the biggest,

toughest creatures arrive. This climatic fight is by far the longest, toughest fight of the game. And since the area is so small, a huge part of the challenge is keeping Farah alive as you can't draw the creatures away from her. Instead you have to fight and fight and fight. This fight serves as the penultimate rising action as you literally rise up to the climatic moment of finding the hourglass. And so, in terms of the story it's like the fight against your father-creature, a major moment in the plot.



Figure 15.
Screenshot of the long fight up the tower (Ubisoft 2003) from GamersHell.com.

In terms of the gameplay this fight took me forever to successfully complete. Like before, I almost quit playing the game because of it. What I found disturbing about this particular moment of imbalance was that it came right when I was feeling almost destined to finish this game. The game had given me the “illusion of winnability,” and I thought I was going to have a successful ending (Crawford, 73). I had made it to the tower (finally!) and I could sense the climax of the story. Yet, during my first attempt, it took me about a dozen tries. The second time took five or six tries, the third, another dozen, and the fourth just twice. It was extremely frustrating to have it be this hard, but here is where the story really helped keep me invested in successfully completing the experience. If it weren't for the plot development and the rising action causing me to want to reach the tower and finally get there, and

then really, really want to reach the top of the tower, I would have quit. I wasn't enjoying the gameplay at this point (it was too difficult and endless a fight to really keep me invested) but I had so much time and experience invested in the story that I persevered and managed to win (again with a huge sense of relief more than anything else).

Plot Twist & Gameplay Complexity

Although the story also helped give me a huge sense of accomplishment, as I had made it to the top and to the hourglass. Then a twist in the story comes at an odd moment. As you leap atop the hourglass, getting ready to insert the dagger, control is taken away. I was at the climatic moment where I was going to win, and a cinematic cuts in, adding a plot twist. Instead of successfully completing the quest, the Prince hesitates. The Vizier appears, summoning a sand storm that whisks the Prince off the hourglass and sends both he and Farah tumbling away into the darkness.

You wake up in control of the Prince and walk down an extremely long winding staircase. It's long enough that it seems to be making some sort of point. Finally, you come to an interesting little sound puzzle. You are in a round room full of doors and Farah is calling to you. You can enter a door, and you'll just pop back out another one in the same room. The trick is to enter the doors from which you hear the sound of water. As you work your way through the doors you'll eventually find that the long way down led to the most invaluable of treasures. You find Farah in a golden bath and a seductive little cinematic hints at the culmination of the love story.

You then wake up alone, back in control again, but Farah is gone and you have neither your sword nor your dagger. You have just watched a climatic part of the story, now you've come to the other climatic part of the gameplay; some amazingly intense platform puzzling with no dagger, so you have to do this without any time control. You are high up with ample opportunity to fall to your death and no way to reverse time, so you have to really display your mastery of these gameplay mechanics to puzzle through these environments. Also, creatures are coming and you have no sword, but you immediately are presented with a final light and mirror puzzle that once you solve wins you your final sword which is so powerful that one blow eradicates creatures. So fighting becomes different as well, it's a little easier, but again, with no dagger you now have to be more careful.

Solid Investment & Platforming Climax



Figure 16.
Screenshot of platforming up the outside of the tower (Ubisoft 2003) from GameSpy.com.

Once more you aim for the top of the tower, but this time you climb up the outside of the tower, which presents the challenging climatic platforming of the game. Like the climatic fight, the climatic platforming is really difficult (see Figure 16). Unlike the fighting, I felt amply prepared for this challenge and believe it was a fair test of my mastery of these elements of the gameplay. The units of platforming operated better than those of fighting. Granted, I think this shows my general preference for the platforming more than the fighting. Also, while I think that the climatic fight had some plot resonance, in the end it's just a really, really long fight. The climatic platforming also takes a long time, but it seems to have a more harmonic resonance with the plot development because the player is physically moving toward the game goal and rising up to the climatic plot point of getting to the top of the tower. Even so, it probably took me a dozen tries each time I played through the game in order to successfully get to the top. Once you (finally) get to the top, a cinematic shows Farah fighting with the dagger of time and then she falls. The Prince runs and catches hold of the dagger, they both hold the dagger for a second and then she falls to her death.

You are back in control of the Prince and have to fight off the creatures who killed Farah. You then make your way back to the hourglass where she lays dead. In a cinematic the Vizier shows up, but the Prince runs up and plunges the dagger into the hourglass. Now, I didn't really mind losing control the first time, since there was a plot twist revealed, but to take away the climatic moment again was definitely a disappointment. It would have been a really nice alignment of the units of the story and gameplay to allow the player to insert the dagger into the top of the hourglass and then cut to a cinematic. That disappointment aside, the cinematic shows all the time and experiences up to now being rewound in a whirl completely back to the very beginning of the game. Interestingly, it doesn't rewind directly to the moment he released the sands from the hourglass, but all the way back to prior to the invasion of Farah's city. While this doesn't fit seamlessly with the narrative, it does make some sense in terms of the experience of the game. You're back at the start and the Prince wakes up back in camp with his Father prior to the invasion of the city where Farah and the Vizier live. He is back in his pristine outfit, but he has the dagger of time. He sneaks into the palace up to the terrace where the player starts the game. It's now apparent that this is the terrace into Farah's room (who at this moment in time has never met the Prince). The Prince enters and offers to tell her (you) a story...

Ludic Narrans

The story told is of the game you have just played through (which now has never happened yet). This moment brings to fruition the game's narrative throughline and subtext of honor and fantastic redemption, as opposed to the honor and glory the Prince hoped for initially. Throughout, you, as the Prince, are trying to atone for the mistake you made by releasing the sands of time and also the mistake of honor for glory, instead of the true honor of good deeds. You literally get to turn back time and erase this big mistake, while you were also able to rewind time throughout the game in order to fix your little gameplay mistakes. This also harkens back to the importance of stories as seen with Scheherazade in the classic tales in *A Thousand and One Arabian Nights*. The denouement is now quickly rushing toward the conclusion of the narrative and the investment stage is firmly engaged as a successful end seems extremely likely. All of the little units of storytelling asides become more than just little affectations and show that the whole experience has been the Prince telling his story to Farah (you). The start of the game was actually the Prince walking in to tell her this story (see Figure 17).



Figure 17.
Scene from the beginning/end of the game (Ubisoft 2003) from MobyGames.com.

It's a wonderful moment of frisson as you realize that your time with the game (around 10-12 hours of playing) has been whirled away within the context of the story. The interactive experience is inverted as everything you've done up to this point has no longer happened. Parenthetically, for those familiar with the movie, *The Usual Suspects*, this reminds me of the revealing twist at the end when everything you've just seen is called into question. Not to completely spoil the movie, but the cinematic experience is also turned upside down as everything to that point is revealed to not have happened. In both cases, the characteristics of the medium itself are used to play with the narrative.

This juxtaposed moment has some post-structuralist, self-reflective facets as well. I believe that it's through stories that we relate our gameplaying experiences. Even if a game has little to no narrative, I think most games contain enough fictive elements (i.e. plot, setting, character, theme) for us to use when we discuss playing through a game. These stories contextual our virtual experiences; for on the one hand, we are sitting on the couch, pushing buttons in a coordinated manner, making mistakes

and trying again, but on the other, we are the Prince of Persia, manipulating time, achieving redemption and honor, and saving the day. And the gameplaying experience of the *Prince of Persia: The Sands of Time* is contextualized as a story that the Prince is telling Farah, a story of his “virtual” experience that has now never happened, but he did indeed save the day. And it is at this moment when you realize that while you have been playing the role of the Prince throughout the game, you have also been positioned as Farah listening to the Prince tell this story. This moment represents a unit that illustrates how the interactive experience of a videogame can make manifest a theory of reading in which the reader is just as active a creator in the meaning of the text as the author. You are both the “author” of the story (the Prince) and the “reader” of it (Farah). Your actions as the Prince are also your imagining of the story being told to you as Farah. It is a wonderful moment of ludic narrans in which you are playing through a story being told, an elegant twining of story and gameplay together in this interactive experience.

Resolution & Completion



Figure 18.
Screenshot of the fight with the Vizier (Ubisoft 2003) from GamersHell.com.

Back in the game, the Prince finishes the story and the Vizier shows up wanting to kill him so that he can try to unleash the sands of time again and have them at his command (see Figure 18). You now have control of the Prince and fight the Vizier. He performs some magic, sending three shades of himself that you have to defeat before you can actually fight him. This is a ridiculously easy fight, especially compared to the climatic fight going up the tower. You can quickly dispatch the Vizier, a necessary fight as he was the primary villain, but one that proves to be the last small part of a larger journey which has already occurred. On a side note, I actually let myself get killed in this fight once to see if the game menu mechanics would change to fit the story. In other words, the Prince is no longer telling a story to Farah, so we shouldn't hear him say, "... that is not how it happened." And they do adjust the menu for this moment in the game, you get a menu that states, "Game Over," and you can select to retry or quit. So the units of story and gameplay are aligned for this part of the game as well. That said, once you do defeat the Vizier you get to watch the final cinematic which shows the redemption and the resolution of the story, and the successful conclusion of the game.

Back on the terrace, the cinematic shows the Prince return the dagger of time to Farah for safekeeping. She now realizes that he has averted a war by killing the Vizier who was going to betray her kingdom. Farah asks why he told her such an absurd story and the Prince tries to kiss Farah but she pushes him away in anger. The Prince uses the dagger to rewind time to right before the attempted kiss, and then agrees with her that it was indeed just a story. Much wiser from his experience with the sands of time, he gracefully bows out, leaping up and at her request, bidding her to call him, "Kakolukia." Now, for those paying close attention during the game's cutscenes, this name is a secret that Farah revealed to the Prince in the (now erased) timeline of the game. It is the name a fairy-tale hero of whom Farah's mother told her tales when she was a child, a name to say when she was scared and it would keep her safe, and by sharing this secret, the Prince has shown Farah that the story he has just told (the game that you just played) did indeed happen (which it did on both levels) and that he is to be trusted. Also, while time may have been rewound, we still see entropic effects. While his uniform is now pristine, the Prince himself seems a much more worn character who carries the memory of the experience (of the game played). And with that, *Prince of Persia: Sands of Time* is completed. So, the intertwining units of story and gameplay are cleverly tied together in the end.



Figure 19.
Screenshot of the Title Screen (Ubisoft 2003) from MobyGames.com.

Well Played

In reflection, I think the dual approach of analyzing the narrative plot and interactive levels enabled me to show the moments in this game in which units of both elements were working together to truly engage me in the experience. It was also a useful method for exploring moments throughout the experience that didn't work as well as they could have. Overall, the story development and the rhythmic gameplay help players understand the gaming situation, the "combination of ends, means, rules, equipment, and manipulative action" required to play through the game (Eskelinen 2001). That said, I kept my analysis with both diagrams at a general, high-level progression of the plot and the stages of interactivity. I think this was useful, but I also believe it could be interesting to get even more granular with both diagrams and really dig into units that show the details of the diversity of peaks and valleys of interest curve in the development of the plot of the story as well as the moments of engagement, disengagement and reengagement that occur during the progressive stages of interactivity. I think both macro and micro perspectives would be worthwhile to pursue in analyzing and interpreting interactive experiences.

A good game can and should teach players what they need to know and do in order to succeed. Ideally, the very act of playing the game should enable players to master the gameplaying units of the gaming situation so they can successfully master the rising challenges and complete the experience. If a game gets too hard, too confusing, or if it just is too long and seems never-ending, players may not finish. For these reasons and more, players can reach a point where they drop off the curve and lose their sense of engagement, becoming bored, frustrated and tired of playing the game. But if a game enables players to stay on course and continues to hold their attention, players will advance to a point where their immersion develops into an investment in which they truly want to successfully complete the game experience. And when there is a lack in the balance of the interactivity, the story can actually help keep the player engaged in order to move from involvement, through immersion to investment and successfully complete the game.

A game can be well played in two senses. First, well played as in well done, so a game can be looked at in terms of how well it is created. Second, well played as in well read, so through the experience of playing games you can develop a literacy of games. Manovich (2001) notes, when engaging new media (or playing a game), we oscillate “between illusionary segments and interactive segments” that force us to “switch between different mental sets” demanding from us a “cognitive multitasking” that requires “intellectual problem solving, systematic experimentation, and the quick learning of new tasks.” So, when the units of story are effectively intertwined with the units of gameplay, the rising action of the plot can parallel the rising challenges of the gameplay, and enable us to have a compellingly engaging experience. While the story in the *Prince of Persia: The Sands of Time* was mostly related in cinematics, there was an attempt to inject it into gameplaying moments through the Prince’s voice-over asides, and certain pivotal actions the player has to take that move the plot forward. And the gameplay is influenced by the story in the way characters share advice on what to do and how plot points become gameplaying goals. *The Prince of Persia: The Sands of Time* may have had a few faulty moments of dissonance, but overall, it did an elegant job of combining its narrative and gameplay to provide a fulfilling interactive experience. It is a game well played.

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*The game transforms me
from a serial multi-tasker
into a singularly-focused,
in-the-moment player.*

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JOHN SHARP

THE PURPOSE AND MEANING OF *DROP7*

I play *Drop7* so much that when I have my iPhone in hand my wife assumes I'm playing the game (and often, I am). I have played the game to get through particularly painful tattoo sessions, but also to while away five minutes waiting to renew my car registration or even during a particularly long cut scene. I have attended meetings completely derailed by the game— one by one, attendees picked up their iPhone to look something up or answer a text message only to be lured by the game. A friend described for me the instinctual pull of the game when he first wakes. When dedicated players gather, we often discuss our relationship to the game, how and why they stopped playing for a period, and why they inevitably returned.

I would like to propose the term *Drop7* practitioners for people like myself— individuals who find something more in the game than one might suspect an iPhone game could provide. This essay is an attempt to understand the game's effect on me.

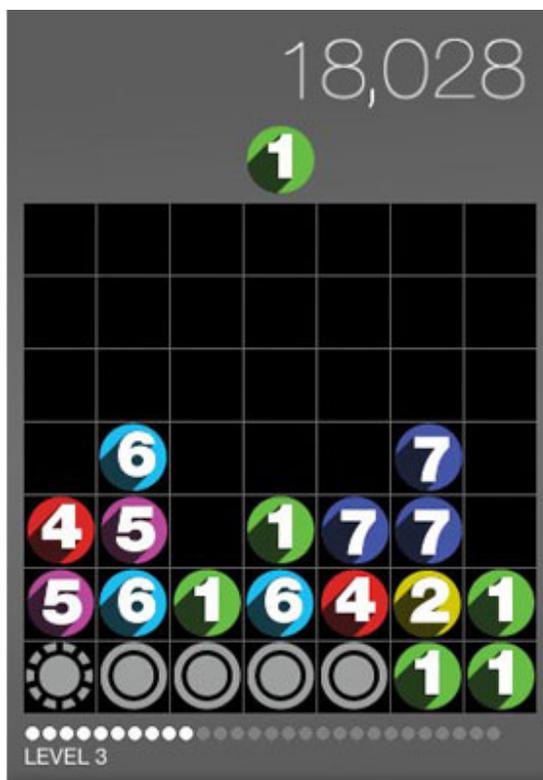
I first heard about *Drop7* from a friend. I knew it was an area/code game, which caught my attention— I had a previous thing with their Facebook game, *Parking Wars*. I had also spent time playing the studio's *Chain Factor*,⁶⁸ so I figured I would probably enjoy this new iPhone variant on that game. The most common elevator pitch of the core game shared by *Chain Factor* and *Drop7* is something along the lines of "Sudoku meets *Tetris*," but this formulation does not really do it justice. The comparison with Sudoku goes only as far as the use of a grid of numbers and a simple math-based system. The *Tetris* reference comes from the falling block puzzle heritage originating with the Russian game.

Drop7 presents players with a seven by seven grid into which they drop discs numbered one through seven into the columns. Well-placed discs “break” one or more discs already in the grid when the number on any of the discs matches the total number of discs in its row and/or column. Take this screenshot:

The best decision is to drop the 1 disc onto the second column from the left. Because the 1 disc would be alone in its row, it would break. And because the 1 disc creates the fifth disc on that column, the 5 disc two below would break as well.

Gray discs require two adjacent breaks to convert to a randomly assigned number. At regular intervals of dropped discs, a new row of gray, neutral discs are added from below. The game ends when there are no more grid spaces onto which players can drop discs or when one or more discs advance past the top row.

There are three game modes: Sequence, Normal and Hardcore. In Sequence mode, the dropped discs appear in the same sequence throughout a game, which allows the player to develop long-term strategies. 30 discs are dropped before a new row of gray discs are added to the bottom of the grid. In Normal mode, the number on the dropped discs is randomized, making it impossible to develop long-term strategies. As in Sequence mode, 30 discs drop before a new row is added.



Sequence and Normal mode are leisurely paced, so much so that *Drop7* practitioners find them to be profoundly dull. For me, and all other practitioners I know, there is really only one game: Hardcore. In Hardcore mode, five random discs drop before a new row of gray discs is added at the bottom of the screen. This makes for an intense game utterly lacking in forgiveness. This is where math and falling block puzzle mechanics alchemically meld to create the *Drop7* practitioner’s space.

My relationship with *Drop7* started like that with any other game; I first seek understanding, and then, if the game fits my tastes, I start down the path to mastery. My *Drop7* mastery-seeking phase was largely spurred on by (not-so-friendly) friendly competition via in-person and Facebook friend list peacocking. I moved past that fairly quickly, now only occasionally crowing about my scores.

Ever since I obtained a solid grasp on the gameplay and found my place in Hardcore mode, my play has largely taken the form of a quasi-meditative activity. While running, cooking, washing dishes and other activities during which I mostly operate on autopilot, I often find solutions to design problems, ideas for writing, new angles for class assignments, and other concerns that require simmered thinking. While playing many other games, I often find myself thinking beyond or about the experience at hand. For example, I have played through *Uncharted 2: Among Thieves* and *Assassin's Creed 2* while writing this essay. While climbing, jumping, swinging, stabbing, shooting, sneaking and otherwise moving Nathan Drake and Ezio through their paces, I think about the games' relationships to their genres; I compare my experience to the reviews and other things I have read; I consider how I will make use of the games in the classroom; I think about the laundry I need to do, or the dogs I need to let out, or the essay I need to finish. When playing *Drop7*, I rarely think beyond the game. I am usually able to carry on a light conversation,⁶⁹ but beyond that, the game defies my usual multi-tasking ways.⁷⁰ The game transforms me from a serial multi-tasker into a singularly-focused, in-the-moment player.

Why does the game have this power? Where exactly does the alchemy take place that uses math to bind the grid and the discs to create an experience that locks me in and brings me back over and over?

The game's design— specifically the interaction design and game system— carves out the space within which the practitioner works. The interface and interaction design is mostly well done.⁷¹ *Drop7* avoids the finger-in-the-way problem of many iPhone games, largely due to the player-controlled pace of the game. The natural rhythm of the game is to make a choice, then pull the pointing finger back to see the results of the last move. In my own experience and those of others I have watched play, there are often pauses of 10, 15 even 30 seconds or more as the game state is evaluated and a decision is made about the placement of the next disc.

When I first started playing, I treated the discs like Chess pieces, resting my finger on the disc to be dropped as I slid it back and forth across the top while pondering my options. I found this led to the occasional misfire. I now tend to minimize the amount of time my finger makes contact with the screen— I consider my choices, make my decision, touch the screen in order to position the disc for release, and then pull away my finger to watch the outcome of my decision. My play style has

become physically minimal with the only outward sign of my engagement the infrequent disc-placement gesture.

The degree to which *Drop7* provides feedback on player actions and system response varies based on settings determined by the player. At the most extreme, every action is accompanied by a sound effect and an animation— the landing of discs dropped by the player, the breaking of discs, the scoring of points, the chain-breaking of discs, the advancing of rows, the end of the game. The sound effects can all be turned off— in fact, I've never met a *Drop7* practitioner who leaves them on. For me, the event sounds completely change the experience of the game; they are very child-like and do not at all seem appropriate for the serious practitioner's work. I even go so far as keeping the soundtrack muted. Though it generally fits the aesthetic of the game, the ebb and flow of the music usually doesn't correspond to that of my gameplay. Instead, I listen to my own music,⁷² or more often, I play in silence.

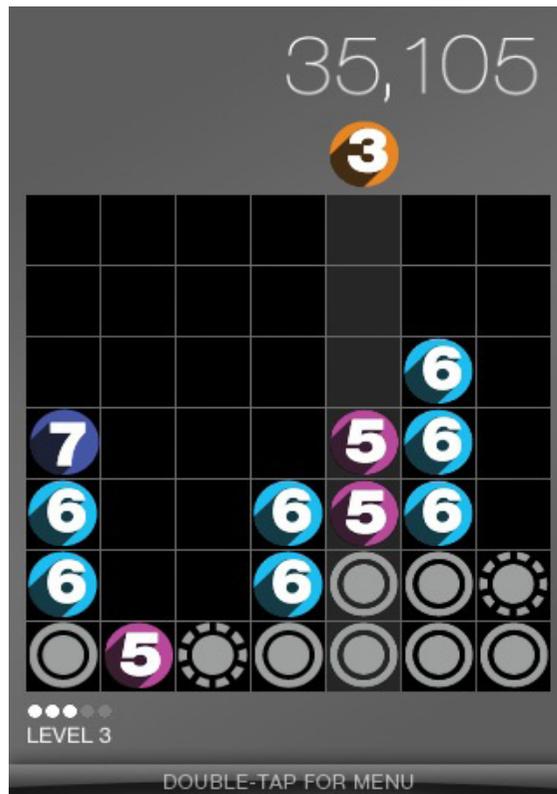
Drop7 provides layered, localized visual feedback to make clear the cause-and-effect of my actions. Discs that land in a spot without causing any disc breaks do not trigger additional pomp and circumstance once they land in their slot. Discs that cause breaks trigger a series of animations: the background of the impacted row and/or column transform from black to white; impacted solid gray discs change to the half-gray state, while impacted half-gray discs transform into a numbered disc; breaking discs first grow about 30% larger, sometimes begin to rotate, then quickly shrink away; the points earned for each break float up from its disc and then slowly fade away; and finally, if the broken disc(s) are buried in the column stack, the disc(s) above hover briefly, then fall and settle into their new location. If additional disc breaks are caused by the preceding break(s), then the entire process repeats until the chain is complete.

While this may seem like an embarrassment of riches, the animations are tightly integrated into the rhythm of the game and become transparent, efficient markers of game events. From a basic gameplay perspective, they are necessary for the player to keep up with the ever-changing game state. From a pure game aesthetic perspective, the animations activate the screen, creating a sense of liveliness on an otherwise staid, almost static screen. Indeed, the animations are a significant contributor to the game's hypnotic draw— they are where the mathy core of *Drop7* comes to the surface.

The interface quickly recedes, leaving you, the grid and the discs alone to sort things out. The math is really simple: numbers one through seven plus the nothingness of the gray discs. It is perhaps the high grokability of the game's underlying system that makes it swallow the practitioner whole. When the "moving parts" of a system

are something ingrained in your brain as deeply and intuitively as the addition and subtraction of numbers 1 through 7 plus the null of the gray discs, there is that much more space for contemplation within the game's space of possibility.

Take this screenshot:



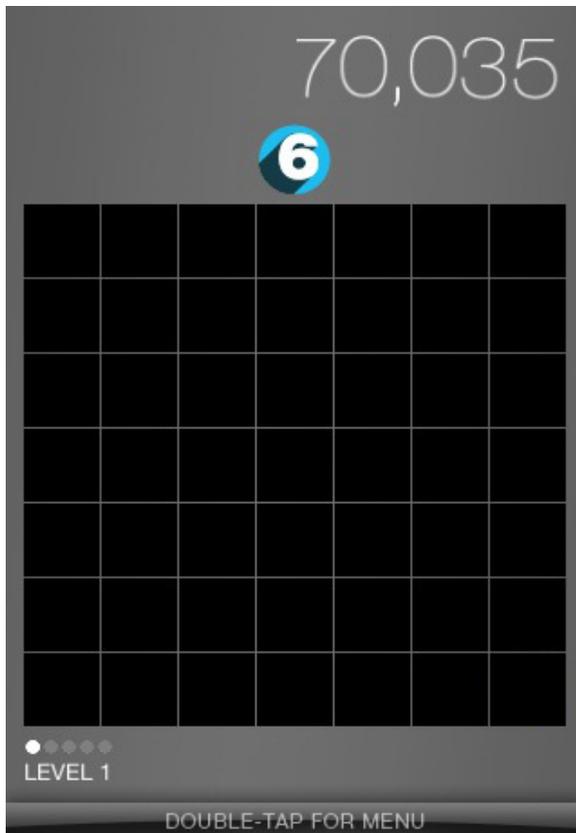
I have a 3 disc to place and a number of possibilities to consider: the rightmost column would convert the broken gray disc to a number while breaking the 3; atop the second column from the right would clear the three 6 discs, and then trigger a chain by having the 3 disc land as the third in that row and column; on the third column from the right would clear the two 5 discs, and then create a three-disc row chain; dropping it on the fourth column from the right would simply create a three in a row; placing it on the second column from the left would create a break when the next row is added; or finally, dropping it on the leftmost column would prepare the two 6 discs to break when the next row advances. Each of these choices has a consequence in that moment, but also for the disc drops to come.

Drop7's core decision loop is deeply satisfying. The game thwarts the deep strategic thinking of Chess or Go, and wholesale rejects the twitchy gesture of many popular iPhone games. *Drop7* is a game of methodical, calculated, movement from one math-moment to the next. The randomness of the discs to be dropped coupled with the random number values assigned to the converted gray discs thwarts extensive strategic planning. Still, there is room for thinking within the current decision and even a move or two ahead based on the probability of the next disc being a number you can use and the number of discs remaining before the next row advances. But for the most part, attention remains ever in the present—this disc, these rows and columns, these possible choices. There is a real satisfaction in disappearing inside a system that so acutely narrows my decision space.

This is the heart of the practice. *Drop7* is about sustaining the focus necessary to keep the advancing rows of gray discs at bay— not about power-ups, achievements and the other immaterial trappings and demands of the game- and real world alike.

Like most games, there are distinct early, middle and late stages to a game of *Drop7*. The early game is the loosest and most open-ended. In the early game, I feel light on my feet, nimble and ready for the discs to fall. Those first couple of levels are like warming up before a game of basketball or a run— limbering up, reawakening the necessary muscle memory. The math is wide open in the early game— so much space, so many options for each dropping disc. High numbers allow me to close out rows, or work without worry on high-number columns. Low numbers close out rows and let me break through to the bottom of the screen. There is no such thing as a problem in the early game— even clusters of 1 discs cannot hurt me.

For some, the early game is all about completely clearing the screen to achieve the elusive 70,000 screen clear bonus:



I've easily played a thousand games of *Drop7*, and only twice managed to obtain this goal. Thinking about it rationally, the odds are stacked against the screen clear bonus happening. Hardcore mode only allows five discs before a new row is added to the bottom. To clear all discs before this happens take a lot of luck in which discs you start with, and which five discs you have to place before the next level advances.

Most *Drop7* practitioners will tell you the screen clear bonus is a fool's errand. It is nearly impossible to obtain, yes, but more importantly, to come to that realization is to begin understanding the game. Fate, in the form of the starting discs and the randomly assigned discs to be placed, is beyond your

control. Both times I have achieved the clear screen, I was not even pursuing it. It just happened, like a shooting star that I happen to glance up and see— completely out of my control, yet a reward all my own.

Invariably, a time comes, usually around level four or five, when there are several rows of gray discs below a crust of numbered discs. This is the start of the middle game, the longest part of the practitioner's experience. It can go on for five or six to several dozen levels depending on the luck of the discs and your mathematical savvy in placing them. The tone changes from the bravado and confidence of the early game to the real task of the *Drop7* practitioner: contending with the ever-advancing gray unknown. The middle game is like an abstracted production of Ionesco's *Chairs*, but with some means of addressing the suffocating, torrential influx.

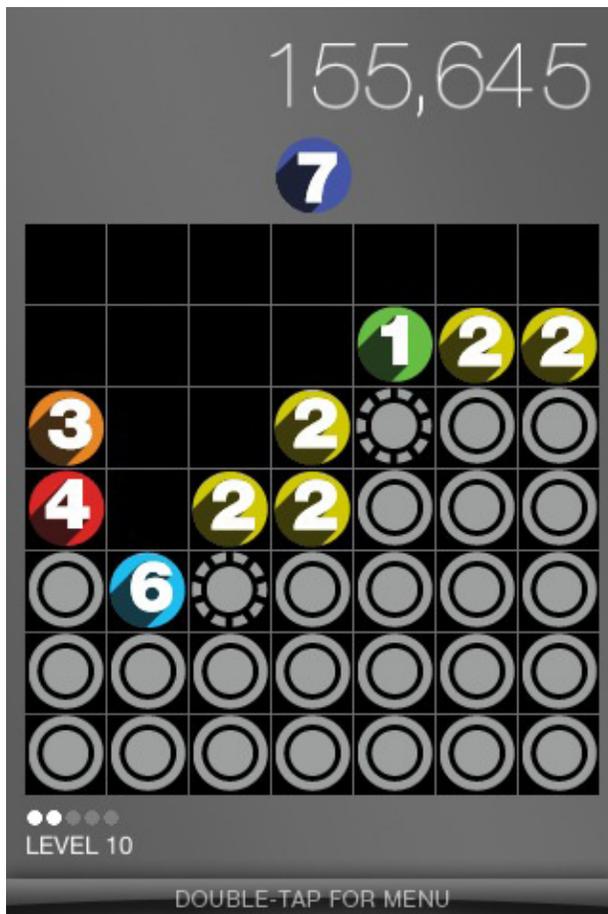
Looking for anyway to break up the gray discs becomes the imperative during the middle game. Different philosophies exist amongst *Drop7* practitioners. Do you work columns of high numbers (5's, 6's and 7's), or do you focus on clearing rows? Working the columns often creates trenches or cliffs, allowing for breaking up the sea of gray discs on the bottom levels, and setting up the potential for point-rich chains. Row-clearing strategies require patience and the risk that waiting will cause too many gray rows to form below if you cannot tunnel down successfully.

The middle game is something akin to the manipulation of an atheist's rosary. I become locked into the rhythm of the discs, the consideration of disc placement and watching the outcome of my choices. The middle game of *Drop7* is about riding the wave of the luck and your ability to think through the possible placements of the current disc to maximize the outcome of your drop. All that matters is keeping at bay the sea of gray. The less gray there is, the less unknowns there are; to hold back the tide is to delay the inevitable.

Eventually, a misplaced disc or simply the unluck of the draw jars the practitioner out of the meditative middle game and into the end game:

The end game springs brutally upon you like a head-first spill off a ten speed. It is typically characterized by a shell of 1, 2 and 3 discs across the tops of most columns, with only one or two spaces left to work the gray discs.

Now and then, there is a game in which the end-game tide inexplicably returns you to the middle or even the early game thanks to a fortuitous sequence of discs that sets off a lengthy chain reaction of disc breaks. What seemed like a dire state with barely a single space left along the top of the grid transforms to several open rows of space with which to work. Though not as elusive as the clear screen bonus, the end-game save is a rare experience to be shared in hushed tones with other practitioners like an inverted fisherman's "the one that got away" tale.



The only hope during the end game is mining columns to break the buried gray discs to change into favorable 4's, 5's, 6's and 7's that in turn trigger chains. Once the shell of low numbers caps all seven columns, the end game is set and it is just a matter of discs until the GAME OVER screen appears.

The end game can be handled in two ways: to see the game through to the end, or cut your losses and start a new game. Practitioners are evenly divided on this point. The impatient and point-conscious— those not really in tune with the purpose and meaning of *Drop7*— see they have reached the end game, and without a second thought start up a new game by double-clicking the menu bar at the bottom of the

screen and selecting NEW GAME. I tend to ride out the end game, knowing the PLAY AGAIN button awaits me on the other side.⁷³

I know I will never “beat” *Drop7*— it isn’t one of those games. The fundamental math and the randomness of the discs don’t give you the chance. Playing *Drop7* is the art of converting Sisyphean drudgery into a form of meditation. *Drop7*’s disc-dropping is an object lesson in the futility of resistance to life’s unpredictability and the certainty of an end— you push the discs around but you never really control them. This, I think, is what keeps me hooked on *Drop7*. It is a space of possibility where the consequences are never more lasting than the PLAY AGAIN button, and the soothing reminder of the random nature of life is safely ensconced in the grid and discs and the ever advancing gray unknown.

Endnotes

69 A little background on the game. Chain Factor is an alternate reality game (ARG) designed by area/code for the CBS program, Numbers. Chain Factor functioned as the “trailhead” for the ARG. The game appeared to be a web-based falling block puzzle game, but as players moved through the game, they encountered strange error codes with addresses, strange phrases, and other curiosity-piquing clues.

Within the ARG’s narrative conceit, the game was the diabolical plan of a terrorist that used players as a sort of hive mind to unlock a sequence to blow up a bridge in an episode of the television program. Chain Factor created a situation where the “casual gamers” who played the web-based game were unlocking codes and clues that were then used by the ARG-players to solve the mystery.

Once the ARG wound down, area/code developed Drop7 as a simplified iPhone version of the web-based game.

70 Strangely, many of my better games happened while idly chatting.

71 This deep absorption has made the process of writing this essay difficult; I have had to work hard to remain outside my own play in order to work out details of exactly how the game operates.

72 I’m not particularly enamored with the two menuing systems— the main controls at the start and end of a game, and the secondary menu accessed by double-clicking the bottom of the screen.

73 For what it is worth, Nosaj Thing’s Drift, Rechenzenstrum’s self-titled first album and Michael Nyman scores for Peter Greenaway films are my favorite Drop7 accompaniments.

74 Far and away the most insidiously enabling thing about Drop7 is the placement of the “play again” button— the upper left portion of the game over screen. I tend to hold the iPhone in my left hand with my right thumb braced against the bottom and my right middle finger stabilizing the top of the phone. That leaves my right index finger on the loose to play the game. It tends to hover around the upper left of the screen. So when a game ends, the most natural gesture is to let my index finger drop down on to the “play again” button just below. Too easy, too natural a gesture. This, combined with my inclination to want to keep playing, makes it likely that I will play a number of games of Drop7 in a row.



“

*My lingering impression
is that it's one of the most
haunting (and haunted)
games I've played in years.*

”

MATTHEW WEISE

INHABITING DEMON'S SOULS – MY MEMORIES OF A HAUNTED WORLD

Brutal, beautiful, and bizarre... *Demon's Souls* has been called the best dungeon crawler in years, but to me this seems like a silly way to describe a game of such rich and haunting subtlety. Calling From Software's silent masterpiece a great "dungeon crawler" is like calling *Portal* a great "first-person shooter" or *Braid* a great "platformer". While these games nominally follow certain conventions, the experiences they evoke go far beyond genre craftsmanship. They may present themselves on the surface as genre experiences, but spending an amount of time with them reveals something else: dark, wonderful worlds of such meticulous thought and feeling they make normal games—even well-crafted ones—feel like wastes of time by comparison. There are deeper, more mysterious organizing forces at work in these games.

I played *Demon's Souls* for 100 hours, which I believe is the most time I've ever spent on a videogame. Even the longest of the long RPGs I've played, *Oblivion*, I didn't get over 70 hours into. The most time I think I've ever spent on an RPG I actually finished was *Xenogears*, which was around 80. *Odin Sphere*, which I also finished, was 72. *Dragon Quest VII* would have probably been over 100 had I finished it, but I topped out at 85 before moving on.

However you slice it, I've spent more time on a single play-through of *Demon's Souls* than I have on any other game I've ever played. I am just realizing this—that *Demon's Souls* is, in fact, the most time I've ever spent on a game in my entire life. The game has a strange and terrible gravity, a kind of gravity I haven't felt in a long time, not since the first time I played *Ultima Underworld* 16 years ago. I remember that game like it was something that happened to me. It was me that bumbled around in those caves, straining to see in the dark, wondering what I'd do to escape. It was me that gradually learned the layout of those tunnels, using only my wits and the tools I could find. It was me who survived that place and emerged triumphant into the light of day, after what felt like years in the dark. The feeling was, I imagine, what Mark Twain wanted his readers to feel of his own experience

of being trapped in a cave as a child. But *Underworld* was a thousand times more vivid than those passages in *The Adventures of Tom Sawyer*, and exemplifies, I think, what well-designed virtual spaces do. It's not necessarily "interactivity" that makes them interesting. It's the sense of being somewhere. The most memorable videogames I've played made me feel like I've been to a place I've never been, a place that isn't real. *Ultima Underworld*, *System Shock 1*, *Metroid Prime 1*, *Ultima VII*, *Majora's Mask*, *Ico*, *Shadow of the Colossus*—all these games are like lucid memories hacked directly into my brain. *Demon's Souls* now belongs on this list as well.

I could talk forever about how the game creates a sense of place, how its use of ambient sound recalls the best work of Looking Glass Studios, how its level design strikes a masterful balance between fictional coherence and designed experience, how its sense of scale is on par with the sublime landscapes David Lean or Peter Jackson or—more relevantly—Fumito Ueda. *Demon's Souls* in many ways belongs in the same class as *Shadow of the Colossus* and not just for the reasons I describe above. It has a similar sense of anguish to *Colossus*, a despair that fuels everything. Each location is an elegiac monument to one sad story or another, carved into virtual space. The sense at all times is of a gangrene world, a ruined civilization that lingers in a state of living death. From the moment you arrive at the abandoned ruin of Boletaria Palace, from the moment you imagine the wind—the only sound in that place—biting at your skin you feel the intangible emptiness. In this place everyone has lost their souls, and the way the game manages to make such a magnificent landscape seem so haunted, so aching with loss, is something I think only *Colossus* had previously achieved.

The despair lurking under the surface of *Demon's Souls* is one of its most important features. Like the best games, its metaphysics are quite intentionally woven into its gameplay system. In this sense it echoes the terrible introspection encouraged by *Majora's Mask*. That was the greatest *Zelda* game because it was about heroism in ways no other game in the series was. When you arrive at the final moment, inside Majora's dream, and are asked by the children if you cared about the people you saved, you are being told to reflect on whether your own desire to "win" the game renders your heroism insincere. Would you have helped those people if it had been counter-productive to winning the game? If not, can you honestly call what you did heroic?

Demon's Souls gives the player a similar quandary: is your greed for more souls—for better powers, for better weapons, for a badass character—is it really all that different from what demons do? The evil afflicting Boletaria is that of demons attacking people for their souls, because taking one's soul grants the user power, making them stronger, faster, or allowing them to use incredible magic. The only way

to fight this process is to copy it, to attack these demons and steal the souls back in order to make yourself as powerful. Harvesting souls in order to give one's self god-like powers is known in Boletaria as practicing the "soul arts", and is forbidden for obvious reasons. *Demon's Souls* makes clear that greed is the ultimate sin in this world, and that the player is no less subject to its consequences than story-characters are. Practicing soul arts tends makes people behave like The Old One, the ultimate demon that started the whole mess. When people are consumed by greed to the point that they lose all morality they become what are known as "black phantoms", mass-murdering soul-harvesters who attack anyone they see. NPC black phantoms attack the player during "black world tendency", a special gameworld state in which the player's wanton murder has resulted in a location being tainted by—and therefore "tending" toward—evil. As the story informs us, these NPCs are champions from all over the world who came to Boletaria seeking, like you, to gain power and slay The Old One. In a state of white world tendency these NPCs appear as friends and allies, more interested in the welfare of others than in gaining souls. But in black world tendency you often find the exact same people turned into black phantoms. Consumed by greed, they will try to kill you on sight. To them you are just a soul piggy-bank waiting to be broken.

The rationale for this change in NPC behavior can be found in the difference between white and black world tendency, in how their different rules encourage different sorts of player behavior. White tendency actually cripples one's ability to farm souls and build power. Enemies yield far less souls in white tendency, and enemies drop less material for soul-weapon forging. In other words, greed is punished for doing good and rewarded for doing evil. The more innocent people die, the more the world tendency goes towards black, and the easier it is to gain souls and become a badass. As a player it is simple to follow this path, to game the system in this way. The result, of course, is that you become a creature of bottomless greed, and because your behavior infects the world around you, nearby NPCs also get caught up in the same cycle and spiral down the same moral path. It's a giant domino effect, the ultimate expression of which is invading other players' games and murdering them for their souls. When you do this you always appear on their screens as a dark shimmering ghost, a black phantom.

The genius of this system is that the multiplayer community inevitably acts out the moral dichotomy *Demon's Souls* bases its entire single-player narrative around, giving it an uncanny resonance in the real world. *Demon's Souls* hands us a hideous world consumed by greed, in which everyone is killing everyone for the ultimate spiritual commodity, and this is what's going on with online player behavior as well. Unlike many games, *Demon's Souls* has no "online multiplayer mode". Its single-player mode is always online, with the possibility that another player will brutally invade your world at any given moment. The game's escalating ruminations

on greed as the story reaches its conclusion are therefore far more striking than they would have been otherwise. In the final moment, when the Black Maiden—the greatest practitioner of soul arts, who’s been your ally through the entire game, converting all your souls into power and granting you life after life—thanks you for subduing The Old One and turns away from you, you have the opportunity to kill her, to stab her in the back and take her soul, the most powerful soul of all. I didn’t do this, of course. I turned around and walked out. But it was impossible not to wonder, in the moment, what I would gain by doing so.

I walked out and watched The Old One float back into the sky. I was standing there in my best armor, which I’d brought with me expecting The Old One to be the fight of my life. But, like many of the “big” boss fights in *Demon’s Souls*, it wasn’t. I had walked into this weird tree, that was seemingly under the ground but appeared to be in a vast desert under an open sky, and found a sorry, pathetic, diseased looking creature flopping around in the muck. It was King Allant, the man who’d unleashed The Old One on his country to begin with by dabbling in soul arts. He (like us all) wanted power, and he had in the end become this sickening shell. I still expected the worst, so I pulled an arrow and aimed, and suddenly heard the king’s voice in my head. He said something about God creating The Old One to save us from ourselves, that The Old One was doing God’s Will. I began riddling the misshapen form with arrows, and it did nothing. As it died I heard the king’s voice damning me for defying God, and that was it. The game was over.

The easiness of this “last boss” is partially, I think, what puts the player in the frame of mind to actually kill the Black Maiden when she thanks you. It is anti-climactic in any conventional videogame sense, and the gamer in you wonders what the payoff is. But this sort of anti-climax appears to be a deliberate, reoccurring aspect of *Demon’s Souls*. The game is so difficult, with normal enemies and bosses being so absurdly hard, that the bizarre ease of all the so-called “arch-demon” fights is obviously no mistake. I think, rather, they are designed more for reflection than challenge. The Dragon God seems scary... until you realize he is basically chained up in a cave, with two gigantic spears forever aimed at his throat. After you use them—which involves simply flipping some switches—the “god” is so wounded all he can do is lay his head on the ground and gasp. I expected him to make one last attack, but no. He is just helpless and dying, and in the end it’s not a fair fight at all. The same goes for Lady Astraea and her lover, whom you kill after fighting your way through what appears to be a massive leper colony. After battling hoards of deformed, diseased people you arrive at a small cave in which you find Astraea, the fallen maiden of The Church. Earlier in the game you hear rumors from Saint Urbain (a member of The Church) that Astraea turned against God and now sides with the demons. In the dank mud you come upon her, expecting a “boss”. But she just sits there, lamenting the fact that you killed her lover to reach her. She holds

a glowing demon soul in her hand. She confesses that she turned away from The Church because she was moved by the suffering of the sick in the valley, whom The Church had forsaken. She stayed to help them and was branded a heretic. Now that her lover is dead, she can't go on. She scorns you for wanting the demon soul she holds, spitting "this is what you want, isn't it?" She gives it to you and kills herself. There is no fight. There is only her suicide... or her murder, if you are feeling impatient.

Demon's Souls is a brutally difficult game that follows many familiar game conventions, but what's great about it is these conventions always serve its rich fictional world... and it isn't afraid to deviate from convention to enhance the experience. Expecting a boss and not getting it, ending this epic journey—one of the most difficult of my lifetime—with an introspective whimper rather than a spectacular bang speaks to the developer's willingness to follow the logic of the world they've created to the bitter end. Such coherence really makes the game feel like it's about something other than its genre, that some organizing force different from other games is at work, shaping your experience around contours that are fresh and unexpected at exactly the right moments.

Even though I suspect the same sort of experience with the same sort of richness might have been achievable in a shorter game, I am so thankful to *Demon's Souls* just for being so textured and interesting that any frustrations I had over my 100 hour play-through simply melt away upon reflection. My lingering impression is that it's one of the most haunting (and haunted) games I've played in years, instantly overshadowing nearly all other games in recent memory.

When I think about this game in the future I'll remember things like the sight of a massive walled city viewed from atop a mountain, a magnificent tangle of buildings and streets I will never explore. I'll remember standing at a rocky shoreline, with the shafts of light cutting through the cloud blanket over the sea, and looking back to see a broken castle I once explored hanging off the cliff a thousand feet above me. I'll remember the smell of the sea even though I didn't smell it; the cold of the wind even though I didn't feel it. I'll remember the sadness, the death, all the lost people, all the ruins. I'll remember the chill I felt when I encountered a boss or black phantom, all those countless moments when I instantly thought "I could die here". I'll remember when I did die, over and over again, and how I never ceased to marvel at my own corporeal body, at the weight and sound it suddenly made, after being resurrected. These memories of place and time and feeling are palpable in the face of their unreality, the same way dreams are... and no less important to our waking lives.

“

*It was...special...
because it looked...
tri-dimensional!*

”

OSCAR GARCIA-PANELLA

KNIGHT LORE AND THE THIRD DIMENSION

I still remember those walks to the school during the mid-eighties and that giant poster hanging inside a well-known bank. In there you could read about a wonderful computer, shiny as a diamond below the rainbow: the Sinclair ZX Spectrum 48k. To be honest I didn't care about the conditions or the bank services. I just wanted to get in touch with the "Speccy". Toned in black, with four different colors at its right side, it bewitched me from the very beginning. That computer wasn't ergonomic at all (rubber and tiny keys with dozens of functions labeled on them) but that wasn't important for me.

Those were the times of the 8 bits machines. Sir Clive Sinclair's "Speccy" competed against several wonders such as the Amstrad, Commodore or MSX masterpieces. That had to be tough! Especially if we take into consideration that it wasn't armed with the best hardware available...but it won the battle during the first years, beginning in 1982.

"Ultimate Play The Game", also called "Ashby Computers & Graphics Ltd. (ACG)", was founded in 1982 by Tim and Chris Stamper. They produced several well known titles such as "Jetpac", where we could see some of the first inertia effects within a videogame, while controlling a funny astronaut. The "Stamper brothers" were also responsible of "Sabre Wulf", which sold more than 300,000 copies during 1984, followed by "Underwulde" and "Knight Lore". In those "ancient virtual worlds" the player could control a curious explorer, "Sabreman", a delirious character that had an innate ability: to get into trouble. Let me say that these games were distributed in Spain by "ERBE Software", for the sake of curiosity and "locality". Their average cost was "2900 pesetas" (≈\$20-25).

Let me focus on "Knight Lore". In there we have some sort of entity that casts a spell on "Sabreman". He gets converted into what is literally said to be a "werewolf". "Sabreman" will try to mitigate this curse by visiting the castle of "Knight Lore" and

finding “Melkhior”, the magician. The sorcerer will enlighten him although it can take forty days of corresponding nights. In order to remove the curse, “Sabreman” will have to prepare a complex potion made of different elements. It was not a very original story although it had a very novel layout for those times and I liked it because of being epic and obscure at the same time.

Compared to “Sabre Wulf” and “Underwulde”, “Knight Lore” used a different and “brilliant” technology: a new projection implementation for the “virtual” camera. The first pair of titles used what is known as an orthographical projection. It can be implemented as a lateral view of the whole scene (sometimes referred as “two and a half dimensions”). But in “Knight Lore” they innovated by introducing a 3D projection effect. To be precise, an axonometric isometric representation quite unexpected in those times if we take into account that the “Specy”’s RAM capacity orbited around 48 Kbytes.

It was...special...because it looked...tri-dimensional!. An incredible effect (we shouldn’t forget that everything was built on the basis of a set of sprites) that captivated me to the point of becoming a 3D Computer Graphics professor and researcher. No doubt on that. I never thought that adding “the Z coordinate” to our virtual worlds would provoke such a different appeal on the screen. This effect was also programmed for very successful titles like “Zaxxon”, developed by SEGA in 1982 as a coin-op game.

“Ultimate Play The Game” invented a name for the technique: “Fimation”. It was tremendously exploited (maybe too much?). We could see it in several games such as “Alien 8”, “Gunfright”, “Pentagram”, the fourth title of the “Sabreman” saga, and the magnificent “Bubbler”. Other studios took advantage of it and used it in some of their games. To mention some, “The Great Escape”, “Batman” and “Head Over Heels”, published by “Ocean” between 1986 and 1987, or the splendid “Fairlight” from “EDGE Games”, created in 1985 by using some of the components of a powerful design package (“The Artist”).

“Knight Lore” rated 94% out of 100% in the 12th edition of the Crash magazine (January 1985). The author of the review emphasized its excellent use of color plus its incredible 3D effects and a magnificent use of sound (93% Use of the computer, 97% Graphics, 97% Gameplay, 90% Learning Curve, 96% Addiction level and 93% Quality/price ratio).

Let me recommend a book before analyzing the game in deep. I’m talking about Jesse Schell’s “The Art of Game Design: A book of Lenses” where we can learn to orbit around “the four axes”: Technology, Story, Aesthetics and Mechanics. Now let’s imagine that we begin our journey through the rooms of the “Knight Lore” castle with “Sabreman”...

Technology

I have mentioned the “Filiation” technique. We all do know how it looks like. Several strategy games such as “Civilization”, “Age of the Empires” or “Commandos” (BTW a Spanish title) make an extensive use of isometric views. But back in the mid-eighties, and for a limited machine such as a “Speccy”, that was an innovative and glorious experience. Hidden spaces and hollows would emerge spontaneously within every room in the castle, making it more fun to search for objects and clues, for true challenges. That new technology brought more complexity, an emerging gameplay and a lot of innovative situations. It was so special to discover that a synthetic scene could have real corners and therefore a bunch of secrets beyond them.

The “Speccy” was gifted with a text resolution of 32 columns by 24 rows (256 × 192 pixels). Its color palette consisted on 15 tonalities (black plus seven colors with two levels of bright each). Unfortunately there was a problem: the “attribute clash” effect. A flickering effect that couldn’t be avoided due to the mixing of colors. In order to avoid this effect, the “Stamper Brothers” decided to use a unique and distinct color for each of the rooms in “Knight Lore”. The effect was particularly annoying when characters and/or objects would intersect. It could be very disappointing to loose control while traversing a room for instance, because of feeling blind and then being unable to avoid an enemy or to jump to a particular location.

On the side of the collision detection and response, I’d like to mention a curious fact: the “Sliding-through-the-doors” possibility. Pure “Usability” within the game. The game engine would “guide us” when reaching a door, easing its access. It wasn’t mandatory to hit the exact coordinate in order to cross a door. The engine would “know our intentions” and we would easily slide through it. An interesting technology implementation delivering a tremendous ease of control.

One could play “Knight Lore” with the help of a joystick or with the keyboard. I must admit that using the latter was particularly difficult for me. The “Speccy” didn’t have cursor keys as a MSX station would. But that wasn’t the main reason. The tricky part was to rotate first and to walk after while trying to find the correct direction within an isometric scenario with a monochrome screen (no lights, no shades). That was tough and “dysfunctional” for my brain I guess. For a while, I would hit all the walls in a room before getting to touch what I really wanted. It could be that I wasn’t really gifted for that game. At least at the beginning. Fortunately it wasn’t enough to discourage me from playing it.

I shouldn’t forget to mention the physical effects associated to every jump. Perfect parabolic shots with different degrees of strength (vertical altitude) depending on the moment of the “day”, and in any of the four poles. Remember that “Knight Lore”

was a finite experience lasting forty days with its nights. “Sabreman” was stronger and agile as a cheetah when being a werewolf (at night). One would love to play with the “wolf” because of feeling superb and superior to the rest of creatures under the shades.

The soundtrack consisted of a collection of beeps that I still love. When listening to them, I feel like traveling back on time. “Knight Lore” had a collection of different sound effects for different behaviors such as walking, jumping, transforming (again, “Sabreman” is an explorer during the day and a wolf at night) or loosing (a life) plus when moving objects or being caught in traps such as vertical sliding fences or falling spiked balls. Isn’t it tough to visit an enchanted castle without any guidance at all?.

Does anyone remember that in those computers we had to use a cassette for loading a game? It was the only option available before cartridges, the fastest way because of being a direct hardware extension of the computer’s memory. When loading a game with a cassette you had time to leave for a while and enjoy a couple of sandwiches and a juice before even “smelling” the “redefining keys” screen. There were some titles where it was necessary to load several times, level after level. For instance “SEGA’s Out Run”, so faithful to the original coin-op game. Fortunately it wasn’t the case of “Knight Lore”: one load for the entire experience made of tones of rooms inside a vast castle. It paid the effort to wait.

Story

The game’s preamble cited this:

“THE MIST TUNES
THE WIZARD’S OLDER NOW THAN ALL
HIS HELP YOU SEEK WITHIN THIS WALL
FOR FORTY DAYS YOUR QUEST MAY LAST
LOCATE THE POTION, MAKE IT FAST
THIS HIDEOUS SPELL UPON YOUR SOUL
TO LOSE ITS HOLD MUST BE YOUR GOAL
BEWARE, THE TRAPS FROM HERE BEGIN
THE CAULDRON TELLS WHAT MUST GO IN
TO BREAK THE CURSE AND MAKE THE SPELL
TO SAVE YOURSELF AND MAKE YOU WELL.”

The story of “Knight Lore” was consistent and impeccably set although not especially relevant. Our guest character “Sabreman” has been cursed. He will convert into a werewolf every night and then he needs a very special potion to overcome this. “Melkhior”, the sorcerer, can assist him with the help of a boiler in which to prepare the potion by adding the necessary ingredients (up to fourteen and not always starting with the same although always following the same sequence). Those toppings can be found within the castle. It is unfortunately fraught with dangers and enemies. It was therefore a story plagued with some significance. Lots of unnatural elements that worked as strong connectors with the youth audience, particularly attentive to the magical-mystical theme. Do not forget that the eighties would be one of the greatest decades of growth and development for the RPGs. I still remember that excitement. Partly due to the fact that I would fight strange creatures and enemies although I was also looking for some discovery and exploration.

Here we are with “Knight Lore’s” monomyth as defined by Joseph Campbell. We have a hero (“Sabreman”) who lives in an ordinary and usual world. But he likes to explore. For some reason he decides to approach all sorts of adventures and adverse situations (“Ultimate” would launch several episodes for the saga). He travels alone, emphasizing its perseverance and bravery, and manages to survive (hence he depends on the skills of the player) to hundreds of enemies and traps. At the end “Sabreman” is gifted (when the player masters and finishes the game) and healed because of the potion that “Melkhior” helps to prepare. I was a kid and I loved to be a hero for a while. To be honest I don’t think it would be different today. Following Richard Bartle’s taxonomy, “Knight Lore” is a game for explorers. As he suggests:

“Players try to find out as much as they can about the virtual world. Although initially this means mapping its topology, later it advances to experimentation with its physics...”.

That is a perfect definition of “Knight Lore’s” gameplay scheme. We have a vast map that we’ll know within a while. Once we master this part, we can start figuring out on how to overcome the obstacles and the traps by using our physical skills.

Following the eight types of diversion defined by Marc “MAHK” LeBlanc plus the context of that time (mid-eighties), I would define “Knight Lore” as a fancy and full-of-sensations experience where our hero advanced in time and space by facing innumerable obstacles throughout a vast and unknown land. Yes, that was a pure epical structure that I was honored to follow.

Aside from that thread that exploration is, “Knight Lore” belongs to a series “of stories” and therefore has a clear internal or “endogenous” value. “Ultimate” ‘s fans always wanted to know about “Sabreman” ‘s trajectory in the future. In fact, after

“Knight Lore” the studio released “Pentagram”, as mentioned before. “Sabreman” lived within a small universe in which countless stories happened, some of them coinciding with the titles created by “Ultimate”. We didn’t see a lot of characters within those. If we refer to “Knight Lore”, we have “Sabreman” with his twofold soul (explorer at day and wolf at night), “Melkhior”, the sorcerer as the guardian of the cauldron, and a host of enemies. The latter static and dynamic, and vastly spread all across the full size of the castle. To mention some: warriors that patrol, ghosts that chase, magical floating balls, spheres filled with deadly spikes, sliding doors, enchanted fires, platforms that disappear, etc.

Aesthetics

By the time that “Knight Lore” was released I was 11 years old and I thought that “Sabreman” was a 3D character that I could even touch and feel. Now I know that he wasn’t. He was a conveniently-oriented sprite. Similar to what we call an impostor or a billboard. This is a well-known technique that allows programmers to deal with situations where there is a lack of memory. It happens with small devices such as mobile phones or portable consoles. Wasn’t it fantastic, to have such an impression? And it was just a sprite...but conveniently rotated as I already said.

All the rooms in the game were monochrome although their tonality could change depending on every particular location. Nevertheless, all the assets (characters, furniture and objects) were well defined and easily distinguishable. There was some information to be displayed, occupying approximately the 65-75% of the entire screen: the inventory consisting of up to three objects that could be carried at the same time plus the remaining lives (“Sabreman” started with four), the current day (from 1 to 40) and the cycle (Sun, Moon, Sun and so on) determining whether he was a man or a beast. Different acting depending on what “you were”, good memory skills in order to remember the order of the rooms and the objects needed and some extra pressure because of the remaining time. Well I must admit that I was addicted to that game.

There was a “Knight Lore” version for the NES platform. I found a curious comment about it that I’d like to share:

“You would have thought that with its more advanced hardware the NES version would be better than the Spectrum version, but the Spectrum version looks so much better (albeit, in monochrome)”.

My explanation? I think that the “Speccy” had its own “soul”. It wasn’t the worst and neither the best of the machines but it was just different. I belonged to the league of “believers” loving it “as it was”.

An interesting point. There was no change in the shading when switching from day to night or vice versa, no apparent change to the color scheme or palette. It had some sense if we take into account that we were inside a lugubrious castle, resistant to the lighting variations that may occur outside. I don't remember if I paid attention to that when I was 11 but now I see that it was coherent. The "traumatic" transformation of "Sabreman" was hard to follow. He seemed to be suffering while mutating from an explorer to a werewolf. Well, I definitely understand him. I feel empathy for him. He wasn't able to move while doing so and then, he was at his enemy's mercy. And believe me if I say that he wasn't precisely surrounded by lots of friends within that castle.

The potion that would "unchain" "Sabreman" depended on a vast collection of ingredients and objects. In fact the objects could have other uses such as helping us to overcome some obstacles. To mention some, a vast dissemination of bottles, diamonds, crystal balls, cups, boots, bowls and even jars with poisonous potions inside. I remember using all of them for performing better when jumping for instance.

The map was rich, populated by a variety of designs and interiors within more than 80 rooms. Those included dangerous places where you faced big challenges, enemies and puzzles along with several empty corridors (connectors). The latter were used to rest for a while so you could think about your next strategy. The potion had to be prepared inside "the cauldron room". It was possible to visit it when "Sabreman" was an explorer, in order to deposit objects. Not as a werewolf though, because "Melkhior" would attack us. We all need to follow the rules...and if we don't we'll learn them by the hard way. That was the "motto" inside that room.

As I have previously noted, loading a game for 15 minutes could be terribly "painful". Fortunately, "Knight Lore" was presented with a beautiful "digital painting" on the screen while the process was taking place. It showed "Melkhior" creating magic spells by using strange beverages from a few bottles laying on the floor, while moving his hands and invoking, filling it all with oddish colored smokes. There was a bicolor (red and yellow) frame surrounding everything. I was always fascinated by its strokes, perfectly symmetrical and, to some extent, mystical; an elaborate piece that followed the inner laws of mathematics and geometry. This would be a constant in the titles of "Ultimate" and it would make anyone feel eager to play. This element leads me to the artwork presented in the cassette layout.

The cover of the cassette showed a card with the same frame, as mentioned before, but depicted with red shades. It had several elements. Among those, three gargoyles facing different directions (the one in the front with a jewel as its right eye), some stars and a perfectly integrated "headline" with the name of the game. Pure fantasy delivered to tones of thirsty minds like mine.

Mechanics

“Ultimate” presented a clear goal: removing “Sabreman”’s curse with the help of “Melkhior” the sorcerer. The player was rewarded with four lives at the beginning of the experience. These could be lost because of the contact with the enemies and obstacles. One could explore the castle during forty days in order to find not only objects for the inventory but some extra lives. “Sabreman” had to find all the ingredients and prepare the magic potion that would “relief” his pain. It was fun because it wasn’t impossible to achieve although it would take some patience. Nothing that an explorer (as the type of player), not a “killer” (again, the type of player), couldn’t do.

The “Knight Lore” castle was vast. It consisted of more than eighty rooms that had to be memorized or written down, if that was possible at all. That was a lot of stuff!. The player had to avoid looping and looping again through all of them with no predefined route in mind. You needed some strategy in order to survive within the time period available. There was a unique difficulty level and one could earn points depending on how fast the goals were achieved, the amount of objects found and the percentage of adventure completed. There was no comparison between scores, no ranking and no “Hall of Fame”. Then the first motivation was to get closer to the end by visiting and discovering new rooms and objects while solving little puzzles. Those were basically related to “physical” skills when jumping for instance. Easy-to-understand but difficult-to-materialize little challenges. A clear “Learning-by-doing” experience based on repetition. No tutorial provided.

One would begin by trying to find the “cauldron” room. That thing was scary! Not because of being an “ugly” asset but yet mysterious and occult, powerful and unexpected. In there the player could see the first item “on the list” of ingredients, blinking on the top of the cauldron. In fact, that first encounter with the adventure would serve as an implicit tutorial because it forced the player to visit some rooms while using the set of actions available. Yes, that is what several nowadays educational methodologies call “learning by doing”, “experiential approaches” and “problem-based learning” (shouldn’t we listen to games before teaching into our classes?). The difficulty level was high at the beginning because of a lack of expertise and the limitations regarding the shading of the scenes (one color for the whole set and a low resolution for the screen). It could be confusing to distinguish different objects in there. Even to evaluate distances and positions, especially if being attacked by an enemy, was complicated. Nevertheless one would get used to it if being persistent enough.

Was it bad “to be cursed”? Well not at all. While it is true that we couldn’t enter the cauldron room if being a werewolf because “Melkhior” would try to exterminate us as quick as possible, we were absolutely powerful in terms of “physical power”. We could run instead of walk. We could perform really well when jumping. One mission right after the other, always following that cycle: go and see what the magic cauldron “desires” next --> try to find it while staying alive --> once you find it, store it --> go back to the “cauldron” room in one piece --> leave it there ... --> and continue until the very end!. One must fight in many battles to win a war.

The cauldron would not always ask for the same object when starting a new game although the sequence was constant (diamond, potion, boot, cup, bowl, bottle, crystal ball, cup again, bottle again, diamond again, crystal ball again, potion again, boot again and bowl again). It is clear that the “Stamper brothers” tried to ensure replayability here. We would say that the game presented a constant difficulty level, not really increased through time. We could visit rooms that would never change and we would traverse them in different order depending on the objects that we had to collect. The inventory was limited and we couldn’t carry more than three objects at the same time. All we knew was the information regarding “the next one” and so, it was “impossible” to know if the rest of the inventory would be useful or not. The player wasn’t supposed to know the sequence from beforehand. An interesting and emerging gameplay feature was the possibility to store lots of objects in one of the corridors next to the cauldron room and use them accordingly. In fact the objects had a double functionality: serving as an ingredient and helping “Sabreman” or the “werewolf” to overcome several obstacles by allowing the character to jump “higher”, for instance, as we stated before. A tricky situation would arise when climbing on an object for jumping from there but needing to carry it at the same time! The player had to learn on how to jump and take the object back to the inventory afterwards. It involved pressing two keys and it wasn’t obvious at all.

I think that it kept me engaged because it was a continuous learning experience. Every time I would think that “I was done” with it, I would find a new room, a different one, with a different “architectural” structure...or a bunch of new creatures mainly attracted by my presence. How does it sound to be that popular? Well if only not everyone was trying to “erase” you from earth.

After all the perilous situations, missions and encounters with several tones of enemies, the player was ready to finish with the last item: the fourteenth one. Every deposit would deliver a reward: a little explosion, full of noise effects and flickering transformations. The very last one was special. One would be literally eaten by eight tiny tornados surrounding the cauldron. After that, this message was shown:

“THE POTION CASTS
ITS MAGIC STRONG
ALL EVIL MUST BEWARE
THE SPELL HAS BROKEN
YOU ARE FREE
GO FORTH TO MIREMARE”

One minute. Two minutes. Three minutes. Silence. Did I really finish the game? Am I right? That was like feeling the taste of a well-done job. You put some effort on it and you get rewarded. We, human beings, are not that complicated to satisfy, aren't we?.

The learning curve followed a classical approach: the hook (the curse) and then several local goals (fourteen objects to collect while dangerous situations happen) and a global goal (satisfying the cauldron and being free again). The rooms within the castle were designed either as “easy” or “difficult” locations. The flow at the experience could suffer from that because of the order, when collecting the objects. These were randomly located every time a new game would start, forcing the user to visit different rooms and then, a variety of difficulty levels not necessarily following a “logical” approach on the player's experience. Nothing that couldn't be solved by playing again and again. And we all know that kids love to repeat what they like. So did I.

As a conclusion, “Knight Lore” was an adventure game for highly skilled explorers where the player was presented with a vast and impeccably decorated scenario. A long and cooperative experience between “Sabreman” and the “werewolf” where both hands (avoid enemies and obstacles) and head (memorize rooms) were important. Pure freedom of movement, tones of different assets and many details made this game a “joy for the senses”, especially taking into account the hardware limitations of the little marvel that the “Speccy” was. I still store a couple of them in one of my shelving units and there's no dust in there.

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*Did you ever want to
know what it is like to
charge head-first into
a working garbage
disposal?*

”

BRETT E. SHELTON

BAD MOJO: TAKING PERSPECTIVE **ON PERSPECTIVE**

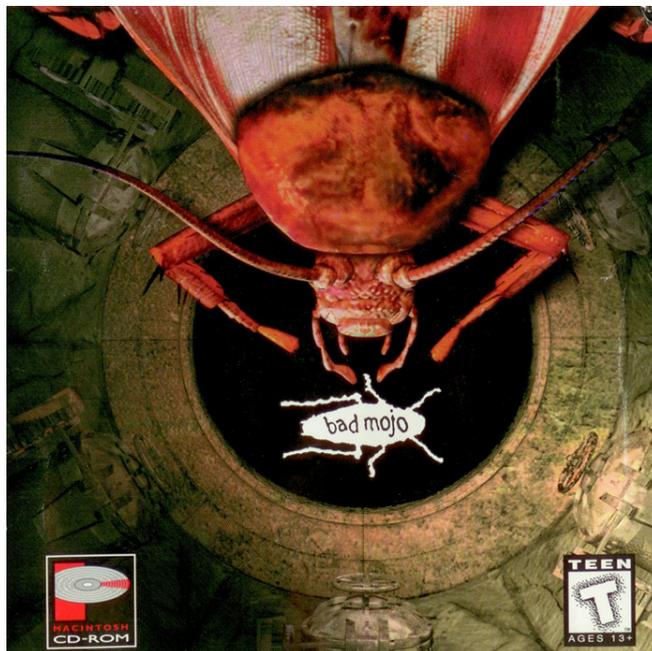
Introduction

One morning, when Gregor Samsa woke from troubled dreams, he found himself transformed in his bed into a horrible vermin. He lay on his armour-like back, and if he lifted his head a little he could see his brown belly, slightly domed and divided by arches into stiff sections. The bedding was hardly able to cover it and seemed ready to slide off any moment. His many legs, pitifully thin compared with the size of the rest of him, waved about helplessly as he looked.⁷⁵

And similarly begins the story of *Bad Mojo* (1996), a PC-Mac game which is extremely loosely based upon the ideas within Franz Kafka's short story, *The Metamorphosis*. In both cases, the protagonist of the story is an unfortunate soul who is unexpectedly changed into a cockroach, and must begin a new journey to navigate once familiar and comfortable surroundings to stay alive. In homage to the general notion of this transformation originally offered by Kafka's 1915 novella ("Die Verwandlung" in German), the Pulse Entertainment computer game creative team named the main character in their story Roger Samms and his cat Franz. Beyond that, the stories diverge significantly in that the characters and storyline within *Bad Mojo* offer strikingly little to those from the original work. However, the perspective of a cockroach to the objects and people that surround it are somewhat transferrable between storylines, and the insight one might gain from the original story is interesting if not overtly helpful when playing the computer game.

The introduction of *Bad Mojo* begins with a cut-scene overview of a fictional area of San Francisco, arriving at a seedy bar owned by Eddie Battito. The voice-over, that of Roger, tells a preliminary tale of skipping town with recently-acquired large sum of money to escape the unhappy life he now leads. The voice-over fades as the player joins the introduction cut-scene, continuing within Roger's small apartment above Eddie's bar. The player is introduced briefly to Franz the cat before Eddie pounds on Roger's door, demanding overdue rent money. Roger stuffs some cash into Eddie's hands and rushes him out the door. An afterthought while doing final

packing, Roger remembers wanting to take an item that his mother gave to him when he was a baby—a locket with her picture. When opening the locket this time, however, a mysterious purple mist envelops him. He collapses to the floor, eyes open and contorted. The locket falls out of his hand and lands beside him. His consciousness has now transported from human form into the body of a cockroach; a cockroach that the player manipulates by scurrying around any of a variety of rooms with the ultimate hope of returning back into a human.



The Bad Mojo CD-ROM cover art.

Game mechanics

I played (and re-played, for the purposes of this essay) the 1996 *Bad Mojo* release, developed by Pulse Entertainment and distributed by Acclaim for the Macintosh which requires a 68040/33 MHz processor or Power Mac. It required an 8-bit color monitor, 8 MB RAM, and a CD-ROM drive with a 300 KB per second transfer rate (double-speed) with a system of 7.1 or higher. What I played it on was a Mac OS 9.2.1 with 256 MB of built-in memory and 1 MB RAM. The monitor was set to 1024x768, 85Hz (a 15" Dell Trinitron CRT). The cut-scene movies and the game itself played in an area much smaller than the monitor resolution, but it did not detract from the game with any real significance. In fact, resolution becomes unnoticeable after the first 10 minutes or so of game play. I used the original clear-plastic keyboard and

mouse (black keys) with the delightfully uncomplicated and comforting single-click to begin programs. *Bad Mojo* settings are equally simple to navigate and remember. I used the up, down, left and right arrow keys to move my roach around each overhead snapshot of room surface that were at times horizontal, and other times vertical and even inverted. The escape key would allow me to “skip” cut-scenes that I did not need to review and get me back to the game play. The spacebar would suspend the action and take me to the menu that includes typical “save,” “load” and “quit” opportunities. The “preferences” menu allowed for different directional keys to be assigned, as well as provide options for better performance by turning “on” or “off” your antennae movements, shadows, and lighting effects. Fortunately, my Mac was tough enough to enjoy all rendering features without any slowdowns.

Bad Mojo's game play consists of both navigation-ability and in-game task solving, neither of which is timed, with the only exception being the final task before endgame. Mostly, the player has plenty of time to survey a scene and move along in a purposeful fashion without the fear of unexpected deaths. A player is initially provided with four additional cockroaches, however, the in-game saves and chances to start from saved positions encourages the exploration of spaces which will likely end in death. Finding ways to die, it turns out, is part of the fun. Did you ever want to know what it is like to charge head-first into a working garbage disposal? Here is your opportunity to do it.

Movement

He was pleased when he finally had his head in front of the doorway, but then saw that it was too narrow, and his body was too broad to get through it without further difficulty.

He pushed himself over to the door, feeling his way clumsily with his antennae - of which he was now beginning to learn the value - in order to see what had been happening there. The whole of his left side seemed like one, painfully stretched scar, and he limped badly on his two rows of legs. One of the legs had been badly injured in the events of that morning - it was nearly a miracle that only one of them had been - and dragged along lifelessly.

It was only when he had reached the door that he realised what it actually was that had drawn him over to it; it was the smell of something to eat.

Once the opening cut scene ends, the player in *Bad Mojo* steers the cockroach left and right, and moves the cockroach forward and backward at the nexus of a series of drains. One passageway is open that leads to the basement above. The basement is the first of numerous rooms the cockroach will eventually navigate. The adjoining

drain areas are one way to navigate between rooms as more passageways open--the result of completing tasks in each room that advance the story. Your cockroach quickly encounters a cut-scene that provides information about navigating the basement, and specifically, how getting sucked into a vacuum and thrown to a new area of basement floor will be necessary. The vacuum sequence foreshadows subsequent navigation that has you crawling across partially exposed electrical conduit. Threats to your cockroach's existence, and thereby Roger himself, are encountered quickly. For example, traversing across a presumed-dead rat may cause you to be gobbled-up, or tossed away by his thick, partitioned tail. You must walk across the dead bodies of deceased brethren within a roach motel, navigating its sticky insides, before burning a charging spider with a cigarette butt. It seems peril is everywhere for your cockroach which has a much harder time staying alive than a cockroach's reputation would indicate.

The story advances with the exploration of new areas that provide the player with additional cut-scenes. There are opportunities to read documents conveniently lying around each of the rooms. You learn incrementally, in painstaking detail, of how Roger's mother passed away. You then learn the name of Roger's real father, who gave him to an orphanage where he endured teasing and mockery. You learn more about Eddie and his bar, the financial difficulties he encountered and his unfortunate luck. You learn about Roger's attempts to garner research money that will rid the world of household pets, primarily cockroaches, and how Roger has unsuccessfully tried to earn respect from his scientific colleagues and funders. By the end of the game, you have been provided a full picture many times over of the full story: Roger's mother and father were happily married when she died in childbirth. His real father is the very same Eddie Battito whose bar he now lives over. Life has been a series of unhappy occurrences for both Roger and Eddie since his mother's death, and the only way to find happiness is to re-discover Roger's relationship with his father. Of course, to do this, you as the player (Roger in cockroach form) must first wake your father from the drug-induced sleep that you have put him in while solving an early puzzle. Waking him will allow him to escape the building that has filled with gas since you turned off the pilot light (while solving yet a different puzzle). Then you must return to the locket to save yourself, that is, return Roger to his human form, and get him out of the bar before it explodes. Who causes the explosion? You did, of course, by lighting a fire in the bathroom when pushing Eddie's cigarette into the paper towel dispenser. This act is encouraged by your mother's memory in cut-scene and will cleanse both Roger and Eddie of the unhappiness of life which was manifested in the bar itself.

The story has four different endings, the happiest of which is when Eddie is awakened by setting off the smoke alarm and returning to the locket. In this ending, both Eddie and Roger reunite outside of the exploding building, resolving previous issues and

somewhat creepily retiring together in Belize. The other endings are less happy and dependent on who is saved before the building explodes. [Rather than spoil all additional endings here, I encourage you to seek out and play for them yourself.] The variation on the final cut-scene is the only task that is time-dependent. However, as with all puzzles within the game, plenty of hints are provided about what-to-do-next. Saving both Eddie and Roger is fairly easy to accomplish.

In-game reading and overall pace

“Mother, mother”, said Gregor gently, looking up at her. He had completely forgotten the chief clerk for the moment, but could not help himself snapping in the air with his jaws at the sight of the flow of coffee.

The flight of the chief clerk seemed, unfortunately, to put Gregor’s father into a panic as well. Until then he had been relatively self controlled, but now, instead of running after the chief clerk himself, or at least not impeding Gregor as he ran after him, Gregor’s father seized the chief clerk’s stick in his right hand (the chief clerk had left it behind on a chair, along with his hat and overcoat), picked up a large newspaper from the table with his left, and used them to drive Gregor back into his room, stamping his foot at him as he went.

As mentioned earlier, there exist a number of cut-scenes provided throughout progression of the game that give the play a narrative feel, and also direct the action in a linear way. There are rarely times when the player does not have a goal in mind. The player is most often provided direction from clues contained within the most recent cut-scenes. The cut-scenes may occur when goals of the story have been met, in which there are several, roughly one-per-room. Therefore advancing to a new room is often accompanied by a new cut-scene. The cut-scenes that provide game-based goals are normally provided by the voice of Roger’s mother (presumably through a locket-induced memory) spoken in obscure rhyme. The other helpful cut-scenes are triggered by advancing to physical locations in the game marked by the “*Bad Mojo* eyeball” logo. The logo’s placements are carefully drawn into the background reducing distraction when navigating the area. Crawling directly over such a mark brings a nearby pest to you who telepathically relates to you how to “solve” a puzzle in the game. The pests take the form of silverfish, fire ants, termites, mice, and other normally unseemly creatures that also make the dirty building their home. For example, approaching a moth perched on a bulletin board in the den triggers the cut scene of climbing on the back of a butterfly who will then fly you to a desk on the other side of the room. Walking on the floor, in this case, was prohibited by a number of dangerous liquids and broken glass, not to mention a lurking Franz who is always ready to capture you.

The characters in the opening scene, just as in all intermittent cut-scenes supplied throughout the game, are provided as a means to give the backstory. They are delightfully (and purposefully) over-acted as though borrowed directly from a B-movie—something akin to those parodied in Mystery Science Theater 3000.

Favorite moments

Nothing would stop Gregor's father as he drove him back, making hissing noises at him like a wild man. Gregor had never had any practice in moving backwards and was only able to go very slowly. If Gregor had only been allowed to turn round he would have been back in his room straight away, but he was afraid that if he took the time to do that his father would become impatient, and there was the threat of a lethal blow to his back or head from the stick in his father's hand any moment. Eventually, though, Gregor realised that he had no choice as he saw, to his disgust, that he was quite incapable of going backwards in a straight line; so he began, as quickly as possible and with frequent anxious glances at his father, to turn himself round.

One of my favorite activities within the game is the trip to the taproom of Eddie's Bar. Here you get the opportunity to practice your mixology skills by inspecting and reading various recipes for tasty beverages. Obviously, this task is something beyond the realm of what normal bugs are capable of achieving. Perhaps oddly, it does not seem out of place here. The game consists of mostly realistic renderings of surfaces, real-video intermixed with few images of "cartoony" situations, and disgusting imagery. This sense of realism is intertwined across most scenes, along with the requirements of size and capability of "realistic" tasks—such as the "pushing" of cigarette butts into position rather than "taking" or "grabbing." At the point in the game where you are tasked with making alcohol-based concoctions, your roach is feeling somewhat empowered by doing things above-and-beyond what a normal bug might do. Mixing drinks, and remembering which amounts should go into making the penultimate *Bad Mojo* beverage, seems strangely within the realm of possibilities for your alter ego. The actual recipe seems less-than-appetizing, but for the protagonist, it is just what is needed to solve the puzzling situation within this particular room.

One of the more unique adventures begins in the kitchen area, where you begin by navigating your cockroach across a slippery refrigerator to a tile floor. Heading up the mop stick handle will get you to the kitchen counter. The counter is filled with a vast array of half-prepared food items, including vegetables and raw meats. Part of the gross-out factor of *Bad Mojo* is the idea of how much of what we leave out may be crawled upon by various insects, and indeed, the kitchen is one of those places. Here, we are forced to experience just how much of what we prepare

might be crossed and re-crossed by undesirable bugs. The animated cockroach is quite good during these parts, climbing up-and-over matte backgrounds that lend a realistic touch to the navigation.

You move along the top of the counter toward the sink, which has some precariously perched silverware over the drain. A trip into the garbage disposal is probably worth satisfying your curiosity, even though it costs you the life of your cockroach. It is a satisfying because, after all, you are still a cockroach, and if you ever wanted to make a cockroach go straight into a set of whirling blades, this is too good of an opportunity to pass up. However, a gratifying suicide is not the point of this particular test. Instead, a cut-scene available nearby implies that it is the silverware that you need to tumble into the disposal. Creating a locked disposal will disrupt the building's power, and eventually lead you to the ultimate goal for this area.

Trying to tip the knife-and-fork with your own roach's weight does not do the trick, so more exploration is required. Eventually moving further along the countertop takes you to a greasy stove where some sort of chili concoction is bubbling away. Navigating this space leads you to the front of an oven, where grease has spilled in long impassable trails, effectively trapping a smaller roach. An additional cut scene recommends that you help your roach brethren with a rescue. Here the "solution" is less than satisfying, as trial-and-error will eventually let you build a bridge across a narrow grease spot with your body. Your body-as-bridge allows the smaller roach a path for escape. However, instead of crawling to freedom, he continues to piggy-back on you. Here is the a-ha moment, where the additional weight of your rescued friend allows you to topple the silverware into the garbage disposal.

The puzzle itself is one that offers neither an intuitive nor clever solution. What makes it a favorite is the interaction with another roach, and the idea of turning your roach into a "hero" of-sorts in the story. Until this point in the adventure, your character is largely an outsider, observing the human-centered narrative with the primary objective to stay alive. Normal interactions with familiar objects, such as your cat, render danger and anxiety into your roach-life. Being a cockroach is inherently difficult to relate to simply because our perspective as a person makes the story of a roach difficult to identify with. For example, your cat turns into your enemy, an immediate source of danger, which may distance a player from getting into the action (especially one who likes cats). However, in this "save a fellow roach" adventure in which your roach becomes a hero, the narrative truly cements you into a likeable character. It is a fireman-like rescue, albeit for a roach smaller and more helpless than yourself. Your character is rewarded for the bravery and selflessness it takes in making the rescue, and you are then duly compensated by receiving help in toppling the silverware, eventually advancing the story. Good karma indeed, as valor is rewarded even in the realm of cockroaches!

The roach: A new perspective?

For some reason, the tall, empty room where he was forced to remain made him feel uneasy as he lay there flat on the floor, even though he had been living in it for five years. Hardly aware of what he was doing other than a slight feeling of shame, he hurried under the couch. It pressed down on his back a little, and he was no longer able to lift his head, but he nonetheless felt immediately at ease and his only regret was that his body was too broad to get it all underneath.

In thinking about the perspective of a cockroach, nearly all visual scenes are from an overhead (top-down) perspective of a square of real estate in which you maneuver your roach from a god-like view, more similar to the situation in *Sid Meier's Civilization III* (Briggs & Johnson, 2001) than an over-the-shoulder view more commonly associated with third-person perspective like *American McGee's Alice* (McGee, 2000).



Screenshot of games played in 3rd person perspective, *American McGee's Alice* (McGee, 2000)

The creators of *Bad Mojo* allow some first-person perspectives during game play to offer the unique perspective of a bug, and how a bug sees its environment. The first-person perspectives are through a few cut-scenes where your roach communicates through some sort of unknown extra-sensory perception in thought-bubbles to other insects. A favorite moment, however, is the rare over-the-shoulder perspective that is offered from the high-points in any given room, where you as the roach can survey the entire area. Another memorable cut-scene from this perspective was mentioned earlier, your roach rides the back of a butterfly across the "Den of Madness," allowing you safe passage across the room above the outreached paws of your cat. Riding the butterfly is a bit dizzying, but a nice visual experience that feels as much like a roller coaster ride as the technology could possibly simulate.

This high-point perspective within rooms is offered by the creators, presumably, as a way to map the entire environment for a few fleeting moments, before you are relegated back to the tile-like visual progression of scurrying across large areas. What the perspective also offers, however, is a moment of relating to your roach. You, seeing what the roach sees, can take in the vastness of a public bathroom or a disheveled den as if you were standing on the edge of the Grand Canyon. You can marvel at the vastness of the landscape, its emptiness, and the contours of its terrain. A brief glimpse of the world as seen through the eyes of a roach, is worth the reflection upon perspective. It may give the player more of a sense of identity than at any other point during the game.

Overview of recent research: Perspective and game play

“We have to try and get rid of it”, said Gregor’s sister, now speaking only to her father, as her mother was too occupied with coughing to listen, “it’ll be the death of both of you, I can see it coming. We can’t all work as hard as we have to and then come home to be tortured like this, we can’t endure it. I can’t endure it any more.” And she broke out so heavily in tears that they flowed down the face of her mother, and she wiped them away with mechanical hand movements.

She happened to be holding the long broom in her hand, so she tried to tickle Gregor with it from the doorway. When she had no success with that she tried to make a nuisance of herself and poked at him a little, and only when she found she could shove him across the floor with no resistance at all did she start to pay attention. She soon realised what had really happened, opened her eyes wide, whistled to herself, but did not waste time to yank open the bedroom doors and shout loudly into the darkness of the bedrooms: “Come and ‘ave a look at this, it’s dead, just lying there, stone dead!”

So, what does this viewing perspective offer the player in terms of character identity, narrative, and engagement within the game itself? Reviewing the results of some recent research may offer some insight (Scoresby and Shelton 2010). In this research, player viewing perspective is first parsed into three categories. First-person perspective is the player’s vision and actions are as the main character in the game. Third-person perspective is when the player views and controls the main character in the game much like a puppet. The third category is “without” viewing perspective, meaning the player sees nothing but text. University students were recruited, both experienced and novice gamers, to play games from the three categories of viewing perspective. Some of the games they played were of the commercial off-the-shelf variety, while others were educational in nature. Students were videotaped and interviewed after their experiences of playing each of these perspectives to probe for feelings of presence, flow, and in the case of the

educational games, their learning. The outcomes of the research were interesting in that the viewing perspective was thought to have significant influence on presence, flow, and learning. However, the qualitative analysis of this research suggests that four emergent categories (content, emotion, motivation, engagement) had more influence than perspective. *Bad Mojo* was not one of the games used in the research, so within a discussion of research findings, a comparison to the game play of *Bad Mojo* reveals both consistencies and inconsistencies for points of presence, flow and perspective.

The research was couched using the following definitions: immersion--the extent to which the computer system delivers a surrounding environment; and presence--the feelings or sense of "being there." The findings were based upon an immersive level provided by desktop computers. Categorized data showed that for both inexperienced and avid gamers, personal preference was highly influential in the progression towards presence and flow. The graphical games had a higher rate of interaction, which required higher levels of focus and use of cognitive faculties. By in large, the graphical games engaged more players than the text-based games.

Summary of First- and Third-Person perspectives as it relates to player presence and flow (Scoresby and Shelton, 2010).

	Content to Emotion	Emotion to Motivation	Motivation to Engagement
Third-Person Perspective	Dependent on experience and personal preference Character possible distracter for progression	Genre/content important	Personal Preference Possible gender difference Ownership of character and activity, could or could not relate to character
First-Person Perspective	More dependent on personal preference Genre/Content/Actions possible distracter for progression	Genre/content important	Personal preference Possible gender difference

The analysis of presence included the sense of “being there,” responses to events that occurred in the computer environment, and the learner’s memory or knowledge of objects in the virtual environment. Touching the keyboard or mouse was not a significant influence in adding to or detracting from the feeling of presence. However, learning how to control the game did serve as a common distracter. When a significant amount of thought went into using the controls, the players could not focus on the game and they could not progress toward presence. When the controls of the game and the action of the character were not fluid, it was similarly easier for the player to become distracted. *Bad Mojo* excels in this particular area, due to the ease and fluidity of its navigational control for most areas. There is no coordination necessary for dual hand-control (no running-while-shooting actions) and no worries about what keys to press for a complicated action. Maneuvering the cockroach itself feels very realistic, in that its awkward rectangular body does not fit well into all spaces. Turning in tight places to escape sticky substances is equally unyielding. The movement of the roach up-and-over surfaces is graphically similar to Kafka’s descriptions of strangeness that our protagonist encounters in *The Metamorphosis*, and is perhaps one of the key sources of enjoyment when playing *Bad Mojo*.

The research results indicated that first-person perspective allowed the player to “become” the character. In first-person perspective, the player is holding a gun or walking through the scenery. In third-person perspective, the players are following the character and watching what is happening from a distance. By playing third-person perspective games, the player is already removed to some degree from the character, but feelings of presence were still reachable. In playing *Bad Mojo*, the unique third-person perspective of top down, tile-background does not precisely fit either of the categories explored in the research. There is little in the way of feelings where you “become” the cockroach in the manner traditional first-person shooter games would indicate, which certainly hindered feelings of presence.

The research also indicated that in third-person perspectives, some players progressed through the four categories (content, to emotion, to motivation, to engagement) toward presence despite finding the character-player provided some visual occlusion to the virtual environment. This visual occlusion became somewhat of a distraction. In the case of *Bad Mojo*, the cockroach was relatively small compared to the overall tiled “view” of the player, though likely consistent with the field of view of a cockroach—yet much smaller for the player than many games such as American McGee’s *Alice*. In addition, very little important information was “under” (or “behind”) the player. Rather, the narrative had less to do with environmental cues and more to do with navigation, pushing objects, and positioning of the roach. Visual occlusion by the roach did not serve as a distraction, so this research finding may not be applicable to all third-person perspective environments.

Progression toward flow

Then, out of consideration for Gregor's feelings, as she knew that he would not eat in front of her, she hurried out again and even turned the key in the lock so that Gregor would know he could make things as comfortable for himself as he liked. Gregor's little legs whirred, at last he could eat. What's more, his injuries must already have completely healed as he found no difficulty in moving. This amazed him, as more than a month earlier he had cut his finger slightly with a knife, he thought of how his finger had still hurt the day before yesterday. "Am I less sensitive than I used to be, then?", he thought, and was already sucking greedily at the cheese which had immediately, almost compellingly, attracted him much more than the other foods on the newspaper.

The research also had some interesting findings with regard to flow. Even if a player does not have feelings of presence, it does not mean that player cannot or will not reach a state of flow. Consistent with observations by Csikszentmihalyi (1988a), when someone is in a state of flow she often experiences a loss of sense of time, loss of self-awareness and the environment, and a heightened ability. When a player is distracted enough, he or she will not reach a state of flow. Beyond not progressing through the categories (content, to emotion, to motivation, to engagement), some distractions may include activity in the external environment that make noise, a process of learning the controls of the game, or a progressive puzzle that proves to be too challenging. During game play, research indicated that some players reached a state of flow where they experienced a loss of awareness, loss of time and above-average ability. Like presence, players had to progress through the four categories to reach a state of flow. When playing *Bad Mojo*, I experienced some feelings of flow after playing an hour or so of the game, and in the latter stages of the game. The game was still thoroughly enjoyable before that time, but game play probably required more self-awareness in those stages. In other words, the game did not simply rely on action-and-reaction with comfortable movements and solutions. Rather, earlier stages required intense listening and exploration, often with consistent checking for new dangers. These types of actions could be considered flow "distracters" within game play. Even while these distracters were enjoyable, they likely were not conducive to progression toward feelings of flow.

The findings of the research indicated that perspective did not play a large role in reaching a state of flow, however, some factors were found to be influential. If the player has already moved through the four categories, reaching a state of flow was possible (but not guaranteed) due to distracters within the gaming and external environment. A large part of reaching flow is focus and what garners the lion's share of attention (Csikszentmihalyi, 1988b, 1997). If a player's focus is somehow taken

away from playing the game, the state of flow is disrupted. A player's focus may be disrupted by distractions in the external environment, an overly challenging game, or "shocks" during game play. Shocks include things that happen in the game that are out of place, such as when a graphic does not appear as expected or when a player dislikes something within the graphic elements (McMahan, 2003). In the case of *Bad Mojo*, there could have been many opportunities for "shocks" during game play, the most likely entering cut-scenes that move the narrative forward. During my play, I found the scenes both necessary and enjoyable, but also disruptive to flow. Portions of the game where I moved the roach from tile to tile, exploring new surfaces and searching for interactive objects, provided me with the most opportunity for flow-like experiences.

The research findings indicated that perspective does influence presence, flow, and learning, but perhaps not as much as previously reported. Vora et al. (2002) noted that players felt more immersed while playing first-person perspective games, and this led to feelings of presence. Because of the heavy influence of companion computer graphics, the mental strain experienced by their study subjects was decreased and subjects reported frequent feelings of "being present." In the Scoresby and Shelton research, the highly interactive levels of first-person perspective also influenced presence and flow. Players who became involved with the game and were not distracted by the controls or external factors had an easier time feeling like they were a part of the game, losing awareness of their external environment. As stated earlier, I felt playing *Bad Mojo* was simple and straightforward in terms of navigation, and the designers of the game took care as to not provide many distracting elements within game play. The nature of the adventure game itself required some awareness and attention to detail, but in the later stages, it was easier to lose awareness of the environment outside of the game.

With third-person perspective, the Scoresby and Shelton research indicated that some players had problems feeling presence because they could not relate to the player-character they were controlling in the game. However, some players felt presence in third-person perspective by feeling that they were inseparable companions with the character despite not acting as the character. In *Bad Mojo* this feeling increased as the game progressed, and was particularly evident in the "rescue" mission. In some cases, players in the research mentioned that they could not see where player-character was looking and therefore could not progress as they wanted in the game environment. The players then became frustrated, limiting their progress toward states of presence and flow. Others felt they had a broader view of the environment and were not distracted by feelings that something or someone was "behind" them, similar to results reported by Taylor (2002). The tile-like view of a static environment in *Bad Mojo* meant that moving your roach to the edge of the environment would trigger the change to a "new" overhead view. In

some ways this was a unique third-person perspective that mirrored neither the broad view of a gods-eye look, nor the over-the-shoulder view one experiences in a game like American McGee's *Alice*. Some might have considered this tile "loading" as a disconnect or "shock" that would distract from presence and flow. In another sense, it could be considered the most convenient compromise between third-person perspectives which helped to enhance flow-like experiences within game play.

Perspective wrap

So, recent research has indicated that enjoying the content, having an emotional connection with the game, being motivated to succeed by completing challenges, and becoming engaged with the game through interaction gave players a better chance to achieve feelings of presence and to reach a state of flow. Reflecting on the research results from a typical third-person perspective in the case of *Bad Mojo*, minimal feelings of both flow and presence were achieved. First, in passing through a stage of content to emotion, my personal preferences tended to lean toward having a more detached view of my character. There were few distracters that existed within the game, a nod toward effective programming by the designers. In getting emotionally involved, the genre of "adventure" game is very appealing, as I find the pacing and strategy of this type of game more appealing than other styles, such as traditional arcade or shooting games. The content of *Bad Mojo* was especially interesting, in both the presentation of B-movie styles as well as taking on the guise and movements of a miniature protagonist. The narrative was interesting, just as in any "successful" adventure game, and for these elements and more, I found the game to be quite motivating. In moving from motivation to engagement within the game, I can see how gender differences may have ultimately affected how players may reach feelings of presence or flow. This game, in particular, has a large ick-factor in ways that go beyond computer simulated blood-and-guts games. The backgrounds and activities are realistic in appearance, which makes players either cringe in titillation or disgust. To me, it was simply delightful.

The research suggests that a game's perspective can influence progress towards feelings of presence and flow, depending on the players' personal preferences. When game designers are sensitive to the cognitive requirements placed on the players by not distracting players with complex character controls and by giving opportunities for players to reflect and think about what they are doing, reaching flow or feeling presence can be more easily achieved. This is certainly the case for *Bad Mojo*, which did its best to not create distractions with complex controls while providing plenty of opportunities to relax, enjoy the scenery, and think about what their roach should do next. Despite this, there exists numerous issues in effectively or consistently reaching states of presence or flow from playing *Bad Mojo*, whether

it is the content, genre or personal style preference. But perhaps equally important is that reaching those states did not seem crucial to my ultimate pleasure of playing. This game has stuck in my mind as one of the all-time greats, and I could not care less about whether I felt like, “I was there,” or how often I lost track of time. With that in mind, are educational game researchers wasting their time in studying aspects of flow and presence when designing effective games for learning? Perhaps, but it is more likely that game research should account for other factors beyond flow and presence when considering what makes for a good game.

Noting perspective within the *Bad Mojo* puzzles made it unique, much in the way all games that have the player “miniaturized” might do. For example, *Army Men: Air Attack* (1999) has you play as the toy helicopter for the little plastic green army men that many of us enjoyed as children. Your objective in that game is to assist the green army men against the faction of tan plastic army men by securing various areas common around suburban neighborhood homes. The environments navigated by your helicopter are the familiar scenes occupied by the little plastic toys themselves: an outdoor sandbox, a picnic in the backyard, and a kitchen floor and a family room. However, everything from this perspective seems to be giant-sized. Saving the picnic from invading ants seems a giant task for a toy helicopter; only using a grappling hook to take the sugary sweets from the picnic blanket saves your plastic comrades. A similar notion of giant-sized perspectives can be experienced in other games too, such as the legendary *Katamari Damacy* (Takahashi, 2004). This game provides a similar change in the size-of-the-world as the player, in third-person perspective, rolls an adhesive ball around the environment that picks up everything in its path. As the levels progress, the player and ball become larger as the surrounding environments shrink. What begins as an exercise in picking up fruit five times larger than the player eventually becomes activity of rolling-up entire buildings as the giant ball becomes increasingly enormous.

Other games that play with ideas of perspective include the *Metroid* series (1986). This game attempts to take advantage of both first-and third-person perspectives within the same game: become a robot-like ball that the player sees over-the-shoulder to roll into tight spaces and fit inside small cracks. The ball-form also offers a different set of weapons and tactics in battle than in human-like form, which is viewed through traditional first-person shooter perspective. Changing between these perspectives is disruptive to presence and flow, in my experience, but was intriguing. Switching form also changes your abilities, as well as how you view the surrounding environment. Similarly, *Paper Mario* (2000) is part of the successful Mario Nintendo-based series that is mostly played in typical arcade perspective. You move the Mario character in horizontal progression in which backgrounds would move behind the character to indicate navigation. Paper Mario offers a unique twist on navigation, offering a move that would make Mario paper-thin and able to slip into

cracks that would normally be un-available to a 2D character. Adding a pseudo third dimension to the typical navigation thereby added a twist on perspective that was previously absent from typical arcade fare. Newer games, not yet fully developed, also take a turn on multi-dimensional puzzling. *Fez* (Fish, DeGroot, & Bedard, 2010) has been popular among design and game festivals. Miegakure (Bosch, 2009) takes its lead from one of the most popular reads on multi-dimensionality: *Flatland* (Abbott, 1884).

Conclusion

Out of consideration for his parents, Gregor wanted to avoid being seen at the window during the day, the few square meters of the floor did not give him much room to crawl about, it was hard to just lie quietly through the night, his food soon stopped giving him any pleasure at all, and so, to entertain himself, he got into the habit of crawling up and down the walls and ceiling. He was especially fond of hanging from the ceiling; it was quite different from lying on the floor; he could breathe more freely; his body had a light swing to it; and up there, relaxed and almost happy, it might happen that he would surprise even himself by letting go of the ceiling and landing on the floor with a crash. But now, of course, he had far better control of his body than before and, even with a fall as great as that, caused himself no damage.

Forward as north, then under the table, and forward as south. Traversing underneath surfaces, across horizontal surfaces, and underneath vertical surfaces, all the while never changing direction. The implications of perspective seem worth consideration from the game designer's standpoint of what it means to be entertained, to feel enveloped by a virtual environment, and to be cognitively engrossed within an activity. In fact, the world from the perspective of a cockroach reveals special consideration as to how we relate to the environment around us, as well as tests the limits of how easily we empathize with our game-playing alter egos. We dislike what we see in the mirrors and what is underfoot every day. Interaction with the environment feels constraining and awkward. What might normally be unappetizing or frightening becomes commonplace and necessary for our existence. Heroism takes on new forms. Death is a way of life. It turns out that the multiple perspectives of a cockroach are as complex as they are entertaining.

Endnotes

- ⁷⁵ Excerpts are from the Project Gutenberg EBook of *The Metamorphosis*, by Franz Kafka Translated by David Wyllie. Release Date: August 16, 2005 [EBook #5200]

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*S.T.A.L.K.E.R. uses
environmental estrangement
to snatch you from this
world and put you into
another one.*

”

MATTHEW SAKEY

ALONE FOR ALL SEASONS

ENVIRONMENTAL ESTRANGEMENT IN *S.T.A.L.K.E.R.*

The explosion shattered a quiet, cool April night in Ukraine, ripping through the housing that concealed the uranium and graphite pile of Chernobyl Nuclear Power Plant's Reactor Four. The men in the control room had known of a problem for a few moments, but their frantic attempts to bring it under control had failed. Flaws in the design reduced the flow of cold water into the reactor during a safety test, allowing it to boil its reserves of liquid coolant. A 2,000 ton steel-reinforced concrete roof was no match for the explosively expanding vapor. It ripped the lid off the reactor as easily as a frustrated child losing a game might flip a checkerboard, catapulting the entire assembly 400 feet into the sky. Searing steam rushed out, replaced by crisp spring air. With a sudden abundance of oxygen to burn, the graphite in the reactor pile erupted into flames. The uranium fuel rods melted into molten slag as the blazing fire hurled nightward a black column of radioactive soot. And so began, at 1:23 a.m., on April 26, 1986, the greatest radiological disaster in the history of humankind.

"Close the window and go back to sleep," Vasily Ignatenko told his wife. "I'll be back soon." He was a firefighter on duty in the nearby city of Prip'yat. Along with his colleagues, Ignatenko was among the first emergency crews to respond to the explosion. All they knew was that there was a fire at the power plant.



Figure 1. CNPP Reactor Four after the accident.

Of her husband’s brief hospitalization in Moscow, Lyudmilla Ignatenko would say, “pieces of his lungs, pieces of his liver, were coming out his mouth. He was choking on his internal organs. I’d wrap my hand in a bandage and put it in his mouth, take out all that stuff.”

Vasily Ignatenko died less than a month after the Chernobyl incident. No first responders would survive the year. No one warned them the fire was radioactive. No safety equipment was issued. No Geiger counters were available. In their hurry to help, many of Ignatenko’s squadmates had arrived in shirtsleeves, without even their firefighter’s gear for protection.⁷⁴

Within four months, the entire city of Pripyat, population 50,000, and dozens of surrounding towns and villages had been evacuated. In total, 30 square kilometers around the Chernobyl Nuclear Power Plant’s doomed Reactor Four were emptied and sealed off. Considered more toxic than anywhere else on the planet, the forbidden region is known as Чорнобильська зона: the Zone of Exclusion.⁷⁵

21 years later that Zone, so removed from the world we live in, would help catalyze a game design technique with the power to shepherd players to expansive new realms of immersion.

Into the Breach

In 2001, Ukrainian developer GSC Game World announced *S.T.A.L.K.E.R.: Shadow of Chernobyl*. Originally titled *Oblivion Lost*, GSC envisioned an open-world science fiction shooter set in an alternative Exclusion Zone – in which a second explosion at the reactor greatly expanded the size and personality of the Zone, and altered reality in the region. It allowed the power plant itself to become sentient: an alien, incomprehensible intelligence that would come to be known as the C-Consciousness. And what is a brain without a body? The Zone itself would fill that role.

Another result of this event was the appearance of “anomalies,” pockets of roaming, reality-bending energy. Anomalies can misdirect time, invert gravity, emit bursts of heat or electricity, even teleport matter. Many are almost invisible, and human contact with nearly every



Figure 2. The Chernobyl Exclusion Zone.

kind causes extreme injury or death. Anomalies, in addition to scattered radiation and the sudden appearance of ferocious mutants, meant traversing the Zone of S.T.A.L.K.E.R. would be a hazard in and of itself.

However, that danger comes paired with irresistible temptation. Anomalies “throw” objects with fantastic, impossible physical properties, artifacts that violate all known laws of physics. Many are deadly or highly radioactive, and all are precious. Soon a black market trade springs up, as scientists and collectors offer massive bounties for the bizarre items. Collecting them requires putting oneself in incredible peril, but the prizes are worth it. Heavily armed treasure hunters swarm to the Zone, braving its many dangers in a radioactive gold rush. Even the military cannot stop the flood, whose lust for adventure and wealth drive them to the poisoned realm.

Those who come to this violated region face unbelievable hardships. The Exclusion Zone has always been guarded by the military, but when precious objects are discovered, the cordon is tightened. Soldiers have strict shoot-to-kill orders; horrifying mutants dominate the countryside; while radiation pockets and anomalies promise hideous death to the careless. Deeper in the Zone are eerie, haunted territories and unexplained psychic assaults. None of it prevents dangerous, profit-minded adventurers from coming in. But of course the greatest danger to visitors is each other – society’s leavings, its unwanted. Men who come to be known as Stalkers, a nod to Andrei Tarkovsky’s eponymous film, itself a rendering of the classic Russian science fiction novel *Roadside Picnic*.



Figure 3. Electrical anomalies such as this one are easy to spot, but among the most deadly. From *Shadow of Chernobyl*.

S.T.A.L.K.E.R. put players in the boots of men who sought wealth in a new and deadly wild world, one different from the Yukon or the old west – those places, after all, belong here. The Zone does not. Spawned from a terrible violation, the game envisioned it as an unnatural, unknowable place, beyond true comprehension, one

that is inherently not of Earth – maybe even not of this universe – and certainly not for human beings. Soon enough a legend begins: tales of a final artifact, said to lurk deep inside the ruins of the power plant. According to rumor, any Stalker bold or foolish enough to brave that contaminated landscape and penetrate the concrete sarcophagus that entombs Reactor Four would find inside a power to grant all his wishes.

As the myth of the Wish Granter spread, the Zone became home to more and more of these prospectors. GSC Game World's reinvention of the Zone draws the cruel, the violent, the avaricious, the hungry for adventure... and those who belong nowhere else.

"There was no place for me in that world," one Stalker confides, referring not to the world of the Zone but to ours. "It didn't want me."

The World Ends with You

Pre-release press was enthusiastic, but as development dragged on and target release dates were missed again and again, industry watchers grew ever more cautious. Nevertheless, when *Shadow of Chernobyl* was finally released in March of 2007, it received widely favorable reviews⁷⁶ despite significant bugs, poor optimization, and often-incomprehensible translation. General consensus was that for all of its shortcomings, *Shadow of Chernobyl* transcended them. Its boldness and innovation dwarfed the faults in execution.



Figure 4. A railroad bridge shattered by an anomaly, near the military cordon in *Shadow of Chernobyl*.

Despite the rough edges, the *S.T.A.L.K.E.R.* series will be remembered as among the most groundbreaking and forward thinking games of the decade. Years before designers Cliff Bleszinski and Harvey Smith agreed that "the future of shooters is RPGs,"⁷⁷ *S.T.A.L.K.E.R.* stood alongside *Deus Ex* and *System Shock* to set the stage and demonstrate the wisdom of that remark.

To my mind, *S.T.A.L.K.E.R.*'s most fascinating trait is its use of a technique I call *environmental estrangement*: a tool that allows developers to imbue games with a wider and subtler spectrum of emotions and an intensely powerful, intensely

personal sense of immersion. While all games can evoke emotion and immersion, environmental estrangement virtually requires players to develop a much more acute connection to the game world, making the experience more intense and nuanced.

Let's be honest: games are not famous for their ability to evoke complex feelings. Simple ones, no problem. But the more subtle a feeling is, the harder time a game has making the player feel it. Sadness? Yes. Melancholy? No. Anger? Sure. Resentment? Probably not.

I believe environmental estrangement techniques can rectify that. Though the name "environmental estrangement" and the theory under discussion are my own, when used in commercial games like *S.T.A.L.K.E.R.*, they make the player feel something much more strongly than most games can. This is accomplished by effectively divorcing the player from his or her own world and sense of self. The human player is taken out of the "real world" environment and placed into the world of the game. A player in this state is easy for designers to manipulate.



Figure 5. Stalkers exchange fire in Lumansk, one of the many small towns abandoned after the reactor accident. From *Clear Sky*.

Environmental estrangement is about making you *feel* something; in the case of *S.T.A.L.K.E.R.*, you *feel* a place – the Zone – on a very instinctive level. It builds an emotional connection with the game world, using a variety of experiences to create a persistent sense of forlorn detachment, a profound loneliness, an intense, solitary immersion so powerful that the player must experience the Zone in a deeply personal way.

In a nutshell, *S.T.A.L.K.E.R.* uses environmental estrangement to snatch you from this world and put you into another one: one that is unwelcoming, unknowable; obscene. Yet despite this it also creates a *need* to be in that world, for all that you are unwanted. The player becomes part of the territory, not despite but *because of* the bleak, depressing emptiness of *S.T.A.L.K.E.R.*'s Exclusion Zone, the unnatural, ghostly quality that evokes a feeling that you're an uninvited visitor in a haunted and unreal place.

S.T.A.L.K.E.R. is not the only game I have observed that uses environmental estrangement, nor is the technique limited to making the player feel lonely. A little later on we'll briefly discuss some other examples of games that use the same techniques to evoke different but equally subtle sensations. By divorcing the player from any preconceptions of a world, environmental estrangement grants developers *a wealth of delicate tools with which to directly manipulate the player in complex and uncommon ways*. I will discuss the *S.T.A.L.K.E.R.* games in the context of environmental estrangement, reviewing the narrative, experience, setting, and mood as foundations for how the technique can affect the player.

Please note that the following contains story spoilers that may impact a newcomer's experience with the games. At this writing, the *S.T.A.L.K.E.R.* series consists of three titles: *Shadow of Chernobyl* (2007), its prequel *Clear Sky* (2008), and *Call of Prip'yat* (2010). In general, when I refer to *S.T.A.L.K.E.R.*, I mean the series as a whole; I employ installment subtitles to describe them individually. Some additional differentiations are also necessary:

- ***S.T.A.L.K.E.R.*** (in italics) refers to the game franchise
- ***S.T.A.L.K.E.R.*** is a narrative macguffin within it
- ***Stalker*** is the Tarkovsky film
- **Stalkers** are the individuals who prowl the Zone for riches and adventure

Finally, my experience with the series is limited to the North American localization of this Ukrainian title.

Where the Wild Things Are

It is difficult to clearly explain the narrative arc of *S.T.A.L.K.E.R.* The games jump around in time and often contradict one another. No one path can be considered canon, as the Zone's ability to alter time, space, and reality interferes with a linear storyline: characters that had been dead reappear, events that had been prevented nonetheless occur. But the story, however difficult to follow, is important.

Shadow of Chernobyl opens with a truck hauling a load of rotting corpses out of the Zone. Rain spatters the windshield as the Soviet-era vehicle trundles through a late-night rainstorm. Seconds into the opening cutscene, a lightning strike flips the truck headlong into a ravine, scattering its gory cargo through the canvas flap before exploding in flames.

Hours later, as dawn breaks, a Stalker crests the ravine at a run, proceeding downward to examine the wreckage and loot bodies for valuables. He is surprised to discover that one of the people from the back of the truck is alive, unconscious,

and bearing a peculiar tattoo – S.T.A.L.K.E.R. – on his wrist. “At least death would have saved him from the dreams,” muses this nameless arrival. He scoops the unconscious man up and trots off through the landscape, and thus you enter the game injured, penniless, and out cold.



Figure 6. Abandoned, often radioactive vehicles and derelict buildings pepper the Zone’s landscape. From *Shadow of Chernobyl*.

Already in this opening cinematic, we see environmental estrangement at play: a bleak and grim landscape, a transport for the dead, a heavily armed loner picking through wreckage for items of value. Solitude, death, and greed: key ingredients in S.T.A.L.K.E.R.’s soup.

That loner takes you to Sidorovich, a merchant who trades equipment, artifacts, and information with local Stalkers and clients from outside the Zone. Entrenched in a concrete

bunker, Sidorovich always seems to know the latest news, and he is very interested in men with the S.T.A.L.K.E.R. tattoo. Though no one knows what it means, it only appears on Stalkers who have ventured deep into the Zone, an area so dangerous most consider it impenetrable. Those who go too far are usually killed by radiation, eaten by monstrous mutants, or shot by Monolith troopers – a psychotically religious faction of former Stalkers who worship the Zone, somehow trading their minds for the ability to survive in heavily irradiated areas.

Stalkers who avoid the radiation, mutants, and Monolith still die; an energy field of some sort literally boils their brains. Sidorovich and a loose association of other black marketeers recognize that the region beyond this “Brain Scorcher” would be virgin artifact territory, a fortune for the first to get there. Near the Zone’s heart lies the abandoned city of Pripjat, promising more riches; and beyond that the power plant, supposedly the home of the Wish Granter. Sidorovich has seen the S.T.A.L.K.E.R. brand before, but never on someone who is still alive. As he rummages through your clothing, he comes upon a PDA with a single to-do item: *KILL THE STRELOK*. At that moment you awaken, snatching the PDA from his hand.

The Marked One, as Sidorovich names you, cannot remember anything that happened to him before the accident. While amnesia in videogames is a common and ridiculed trope, it proves helpful here in order to conceal some key plot points,

in particular who “the” Strelak is, and why the Marked One is supposed to kill him. The amnesia creates an empty vessel, reducing the importance of his character. Indeed, the real “protagonist” of *S.T.A.L.K.E.R.* is the Zone itself. If characters in narrative are primarily responsible for the evocation of emotional response, and assuming that a character can be anything⁷⁸, then certainly a place can take center stage as easily as a person. The Zone is the star of this show.



Figure 7. A Stalker interrupts Sidorovich’s lunch to deliver the Marked One in *Shadow of Chernobyl*.

S.T.A.L.K.E.R. was disorienting to many gamers, who by 2007 had developed certain expectations for how first person shooters were to be played. Traditional shooters typically offer one path, or at most a few; these are often recursive so it’s impossible to really get lost. The environment itself is usually little more than a backdrop designed to showcase set-piece occurrences such as battles or puzzles, and in most cases players never return to areas they have visited. Even the most beloved first person games – *Thief: the Dark Project* and *Half Life 2*, for example – essentially herd the player in one direction, through predetermined missions and carefully crafted level design. *S.T.A.L.K.E.R.* is nothing like that.

When you leave Sidorovich’s bunker, you can go anywhere. Eventually hills or fencing or radiation or the ever-present military will cut you off, but there are no corridors here. The vast majority of *S.T.A.L.K.E.R.* takes place outdoors, with all the freedom thereof. This too is part of the effect that *S.T.A.L.K.E.R.* has on most players: here at the outset, in *Shadow of Chernobyl*, you are unarmed, without friends or contacts, in a dangerous countryside, with just the vaguest idea of where to go or what to do once you get there. “Kill the Strelak” is the only guidance you’ve got, and while Sidorovich reveals that there is a Stalker by that name, no one seems to know where he might be or why you’d want him dead. From this moment forward, one word will define your time in the Zone: *aleness*. Even in the company of other Stalkers, the persistent sensation of forlorn solitude dominates the experience. That sense of aleness, of desolation and isolation caused by your surroundings, is environmental estrangement at its best: use of the game environment and tropes within it to affect your mindset as a player and subtract you from your conscious awareness of real-world surroundings.



Figure 8. The Marked One's first mission: clear a bandit-infested car park in *Shadow of Chernobyl* and rescue a fellow Stalker.

The Zone maintains a viselike hold, not only on the Marked One, but on all Stalkers. "God knows how long I've spent here," sighs Wolf, a friendly Stalker early in the game. "But it's like this place doesn't want to let me go."

About halfway through *Shadow of Chernobyl* the player learns that

Strelok and the Marked One are the same person; you *are* the man you are trying to kill. Strelok was obsessed with the Wish Granter, a mania that drove him to sacrifice anything to reach it and tame the power it promised. He had made great progress toward that goal, until he was struck with amnesia and forced to essentially start his quest again. But he fails to realize that the Zone is not simply *a place*. It is a thing – a *living thing* – that knows what Strelok is up to, and despises him for it.

That Strelok is alive at all was an error on the part of the C-Consciousness, the sentient entity spawned from Soviet-era experiments in mind control. It occupies the power plant and a network of secret laboratories; it is the mind and the Zone is its

body. It brainwashes or kills anyone who comes close to discovering it, marking the corpses as S.T.A.L.K.E.R.s - scavengers, trespassers, adventurers, loners, killers, explorers, and robbers. The tattoo is a scarlet letter left behind on unwelcome intruders as a warning to the others. The brainwashed are programmed to perform tasks of its choosing. The C-Consciousness seized Strelok moments



Figure 9. Stalkers gather to relax, visit, trade, and look for jobs in various abandoned buildings and faction strongholds, such as this one from *Call of Prip'yat*.

before *Shadow of Chernobyl* begins (the climax of the prequel *Clear Sky* details Strelok's capture). Not realizing who he was, it wiped his mind and sent him off to kill... Strelok, a Stalker the C-Consciousness knew was on the verge of discovering it. And as something alien and unknowable, it does not think of humans as equal entities – just as we would say “kill the mouse,” so the C-Consciousness wants to kill the nuisance. The game's seven endings, based on decisions the player has made throughout, dictate Strelok's fate.

The subsequent *Clear Sky* and *Call of Pripyat* are of great value for understanding the Zone as a character and the nature of the Stalkers who live there. *Clear Sky* is set a year before the events in *Shadow of Chernobyl* – well after the 1986 meltdown and GSC's subsequent fiction, but before the C-Consciousness has set up the Brain Scorcher to protect itself. In *Clear Sky* you play a mercenary Stalker named Scar. Injured at the beginning of the game, he is rescued by the mysterious Clear Sky organization, a scientific team dedicated to study of the Zone. The group believes that recent occurrences in the Zone have been caused by the region reacting to a perceived threat – which we know to be Strelok's pre-amnesia exploits as he and his allies attempt to reach the power plant.



Figure 10. Lightning flashes behind the rusting dock cranes in *Call of Pripyat*.

Even without the Brain Scorcher field, the Zone can protect itself. Its primary defense mechanism is a blowout, or emission – a colossal radiation storm originating from the power plant. Blowouts are terrifying; the sky bruises, the air itself turns angry scarlet as the earth shakes and thunder rumbles. They are deadly, driving animals before them, killing anyone and anything

that cannot find shelter. Minor blowouts can be daily events, but massive ones have a sinister purpose. With each major emission, the Zone changes. Routes that had once been safe become irradiated, dangerous paths open up, anomalies move around and throw new artifacts. Clear Sky has learned that Zone is getting larger with each serious blowout. The organization believes that coexistence with the Zone may be possible, but that behavior like Strelok's is antagonizing it and threatening the possibility that something as alien and unnatural as the Zone will tolerate humanity. Strelok's invasion has caused instability. All that matters to him is reaching the Zone's toxic beating heart, the power plant. The Wish Granter, and

the power it promises, drives him ever forward; so forward he goes, ignoring the ruin he leaves in his wake. Like an immune system responding to a virus, the Zone is defending itself.

Environmental estrangement allows GSC Game World to separate the player from normal reality and immerse him or her in the Zone. It is portrayed as an incomprehensible entity, completely beyond human capability to understand or manage. The Clear Sky organization's goal – coexistence – may be the only realistic solution for the presence of the Zone in this world, and may also be fueled by the revelation in *Call of Pripjat* that much of Clear Sky's leadership was once involved in the research that led to the appearance of the C-Consciousness in the first place. But coexisting with something so alien, particularly when provoked by Strelok's actions, becomes impossible. At the prequel's climax, the organization's philosophy of coexistence leads to the utter ruin of Clear Sky and the deaths of everyone involved with its activities. Strelok's view – that the Zone is a treasure to be dominated and controlled – threatens to destroy him and change the Zone completely; creating the world we visit in *Call of Pripjat*.

Most critics consider *Clear Sky* a disappointment compared to its predecessor⁷⁹, but the environmental estrangement remains effective, evoking that eerie loneliness in the player, despite *Clear Sky*'s intense focus on interaction with other Stalkers. This prequel's Zone has many more people, and your character works with them regularly. The revelation of *Clear Sky* is its presentation of the Zone as a malicious living thing, yet one that people willingly seek out, and become attached to once there. Moreover, it shows the pointlessness of existence in the Zone, as faction wars drag on and corpses pile up. More than once the player must watch friends fall and bullets fly as Stalkers fight over petty philosophy or territorial squabbles. Nothing here matters, everything is poisoned; it's all worthless. And thanks to the potency of environmental estrangement, the player is able to easily feel this complex, layered emotional connection to the issues of the game. Those "precious" artifacts Stalkers risk everything to collect are so dangerous that even carrying one around can result in a lethal dose of radiation. The bleak, empty land-scape highlights the heartlessness and cruelty of life in the Zone, where men kill each other as though this crumbling building or that derelict factory were strategically worthwhile.

Clear Sky took us back a year, and set up the events in *Shadow of Chernobyl*. *Call of Pripjat*, meanwhile, tells the story of what happened in the Zone just moments after the first game ended. At the climax of *Shadow of Chernobyl*, the player had disabled the Brain Scorcher, eliminating the barrier that kept Stalkers from getting too close to the power plant. With the Scorcher offline and promise of the Wish Granter beckoning, the race is on: hundreds of Stalkers pour into Pripjat, each intent on reaching the ultimate treasure first. Warring factions, Monolith's zealots, personal enmities, and individual avarice reduce the city to a lunatic war zone. Outside the power plant itself, the running

gun battle becomes even more chaotic. The Ukrainian military has seized this sudden concentration of Stalkers as an opportunity to kill as many of them as it can, and so dispatches heavy attack helicopters and tanks. For its part, the C-Consciousness emits a colossal blowout that completely reshapes the Zone.



Figure 11. The Clear Sky organization gathers its strength for the final assault. Note the power plant's cooling pipe in the background.

Where *Clear Sky* had the player exploring the same general areas of the Zone, *Call of Pripjat* features three completely new regions, which had been inaccessible until the latest emission. Stalkers waste no time moving in and setting up new camps. In this third installment, you play a Major in the Ukrainian military who agrees to go undercover as a Stalker to learn the fate of five attack helicopters that went down during the climactic moments of *Shadow of Chernobyl*.

Call of Pripjat takes advantage of new technologies and lessons learned from earlier games to further refine the Zone's inherent desolation and loneliness. Early-morning trudges through misty fens, nighttime mutant hunts, encounters in the rusted hulks of beached freighters abandoned in 1986 disaster make *Call of Pripjat* a more introspective game than its predecessors. The player explores abandoned villages and haunted rail terminals; the eerie ruins of Jupiter Station, a massive radio factory; and finally Pripjat itself, visited only briefly in *Shadow of Chernobyl*. The evolution of the S.T.A.L.K.E.R. games is clear in *Call of Pripjat*, in which GSC Game World was finally able to implement



Figure 12. Overcast pre-dawn view of a ruined cement factory from *Call of Pripjat*.

mechanics that had long been intended: the game's remarkable artificial intelligence, moving anomalies, and blowout-fueled changes to the world as a whole. Slower-paced, *Call of Pripjat* is a meditative experience. It retains *Clear Sky*'s rumination on violence and aggression, while all three games make a concerted effort to exclude any sense of comfort or security. Throughout all three games, diegetic sound is key to this: the loneliness of a wind gust, the far-off bark of a dog, the whale-sounding call of loons deep in the Zone, all make you relish and suffer the loneliness created by the game. But efforts to exclude the player from any sense of home or comfort do not end there.

GSC Game World was hardly unaware of the bleakness of the world it created, and maximized its impact with every sensation. Much of *S.T.A.L.K.E.R.*'s soundtrack was created for the game by Ukrainian death metal band Firelake, of which GSC Game World marketing director Oleg Yavorsky is a founding member. But in a departure from the roar-intensive shriekery of traditional rhythmic death metal, Firelake demonstrated its versatility, producing lonely flute and string numbers, lingering ballads, and environmental tones designed explicitly to evoke emotional response. Consider some lyrics from the series theme song *Dirge for the Planet*, a hauntingly apocalyptic composition that speaks, perhaps, of a world entirely engulfed by the Zone⁸⁰:

*The seas overdumped,
the rivers are dead,
all planet's cities turned a deserted land
annihilation declares its day [...]*

*Dancing on the ashes of the world
I behold the stars.
Heavy gale is blowing to my face
rising up the dust.
Barren lands are desperate to blossom
dark stars strive to shine.
Still remember the blue ocean
in this dying world*

Throughout the evolution of the series, even as GSC has experimented with new mechanics, new interfaces, and updated play styles, the developer's vision of the Zone has never changed.

It all comes down to the Zone. The Zone produces these artifacts that Stalkers fight and die for, and the Zone, by its very existence, provides a haven for violent men to do violence. A player willing to give himself wholly over to the world of the Zone will experience this environmental estrangement on a very conscious level, as everything in the *S.T.A.L.K.E.R.* games is designed to remind players how alone they are.

The storyline, characters, and even music of the *S.T.A.L.K.E.R.* series adeptly connects the player to the environment by removing him from reality, enhancing the feel of the world. This structure allows the series to comment on specific themes. Overall the morality tale of *S.T.A.L.K.E.R.* is a commentary on greed, on incomprehensible entities, on connections men form with places. By linking the player to the land as effectively as the Stalkers themselves are tied to the Zone, GSC creates a world and a fiction that, however circuitous, does help the player feel for the people, the place, and even the C-Consciousness, to whatever degree a person is able to empathize with something so decidedly alien.



Figure 13. The desolate Yantar Lake region from *Shadow of Chernobyl*.

We have seen how the storyline, characters, and even songs can act as tools of environmental estrangement to closely control player immersion; let's now look at the manipulation of two other key elements: setting and mood.

Magnificent Desolation

The very word “Chernobyl” evokes an emotional response in most people. It remains contaminated to this day; during the desperate weeks immediately after the explosion, radiation from the fire reached nearly every point on the globe. Soviet-era secrecy caused misconceptions about the scope and seriousness of the disaster, with no agreed-upon findings of deaths or long-term effects. The official Soviet tally is 56 dead.⁸¹

Meanwhile, a Greenpeace study claims 258 within a few weeks, 4,000 by year's end, 93,000 by 2006, and more than 140,000 all told.⁸² Those numbers are not the most pessimistic: recently three Russian scientists published an exhaustive report based on hundreds of sources, claiming that 985,000 have already died.⁸³

The truth is no one knows. No one can know. How many has Chernobyl killed? Impossible to say, because Chernobyl is still killing. It will continue to kill for generations, as mothers and fathers pass tainted genes on to their offspring. As such it has taken on an unholy significance with some, a specter of nuclear dangers not fully understood.

Today, the Exclusion Zone is safe to visit, to a point. An unknown number of people live there, having either returned home after the evacuation or never left in the first place. Still, it is reasonable to remark that the area is largely abandoned and will remain so for a century or more. Chernobyl is the Eastern European version of Centralia, Pennsylvania, the nearly deserted town under which a coal fire has raged since 1962.⁸⁴ A handful of people remain there as well, intentionally cut off from the world. No post, power, telephone, not even a ZIP code remains to identify



Figure 14. GSC Game World visited the Zone repeatedly for reference material, and exhaustively modeled *S.T.A.L.K.E.R.*'s Zone based on the one they found. The left image is reference photography, the right the designers' recreation.

Centralia. Settings such as these – derelict, forgotten, cast off, haunted by history and abandoned by most, are ideal fodder for game worlds in which the environment itself is an emotional affecter.

Theoretically speaking, developers could apply environmental estrangement techniques to any location. Bearing in mind that the objective of the technique is to make the player *feel something* at a primal level by first removing them from their present environment, making it work is really a matter of creating an immersive experience. In the case of *S.T.A.L.K.E.R.*, a great deal of firsthand research allowed GSC's worldcrafters to sample the flavor of the real Zone and transmit it into their game. For Kiev-based GSC Game World, it was an easy matter to visit the Exclusion Zone. Many landmarks and geographical features that appear in the game mirror real-world locations. The poisoned realm of Chernobyl is an actual place, a place the developers went to great effort to model. In accomplishing this, they were able to transplant the much commented-on feeling of loneliness that exists in the real Exclusion Zone. Visitors have described the eeriness of the region⁸⁵, sometimes speaking at length about how they felt disconnected from the rest of the world while there. Capturing this sensation in a digital medium is not easy, but the results when successful are striking.

As it happens, *S.T.A.L.K.E.R.* removes the player from his or her own world and places them in one permeated by the sensation of melancholic loneliness. One of its most impressive achievements is that it makes the player feel alone (and lonely) regardless of actual company. *S.T.A.L.K.E.R.*'s world is not overrun with people, but it is reasonably crowded. The Zone is not so large that the player will go hours without seeing another person. Later segments of all three games are downright bustling. The madness in Pripyat and outside the power plant in *Shadow of Chernobyl* are nothing short of chaotically populated, with hundreds of Stalkers, soldiers, and Monolith fighters exchanging gunfire. But the sense of loneliness endures.

Mad World

Hand in hand with setting is mood. *Where you are* is important, but the critical key to making environmental estrangement work is *how the place makes you feel*. In *S.T.A.L.K.E.R.*, it makes you feel lonely (other games use environmental estrangement to create different sensations, which we will discuss later). Chernobyl, empty and legendary, is a natural setting for a game, particularly a lonely one. It might seem that with so much history surrounding the place, environmental estrangement would be part and parcel of the experience, but Chernobyl alone is not enough. *Call of Duty 4: Modern Warfare* and *Modern Warfare 2*⁸⁶ both feature missions set in the Exclusion Zone, but the sensation of the place is very different than that in the *S.T.A.L.K.E.R.* games. It feels much more like a traditional action setting, with only the crumbling buildings and occasional landmarks to distinguish it from any other generic location. In a game world, atmosphere dictates player state of mind.



Figure 15. The Rookie Camp, *Shadow of Chernobyl*.

From the moment you take control in *S.T.A.L.K.E.R.*, the game's vision of the Zone bombards you with visual, auditory, and experiential cues designed to separate you from the world of the present. Leaving the ramshackle encampment where rookie Stalkers gather their courage before venturing out into the Zone's dangers in *Shadow of Chernobyl*, you crest a hill and encounter your first anomaly. It's nothing more than a localized distortion; about the size of a phone booth, nearly invisible, just a sort of... wiggle in the air. It is the middle of the day as you stand on a pitted asphalt street. Though the Newbie Camp of 20 or so souls sits less than a football field's distance

behind, there, just over the next ridge, looms the Zone in all of its unearthly and terrible beauty. Any player who stands on that rise cannot escape the shivering sense that they are suddenly and truly on their own.

Sometimes the smallest things in *S.T.A.L.K.E.R.* evoke the strongest reaction. Every now and then a breeze whispers by, carrying leafy flotsam and dust. Odd as it may seem, that puff of wind alone is sufficient to make many players shudder

with loneliness. A rainstorm soaks a group of Stalkers trudging through a swamp as the mournful yowl of a stray cat echoes nearby. Two rookies warm themselves around a trash fire, one strumming a tune on an acoustic guitar. Gnarled trees point like arthritic claws to the sky, their bases wreathed in mist. Crumbling homes speak of the lives hurriedly abandoned in the days after the disaster. In many areas of the Zone, derelict buildings serve as crude encampments or faction bases, while a labyrinth of irradiated and abandoned cleanup equipment – trucks, fire engines, backhoes, busses, even the odd helicopter – crouches next to mountains of half-buried steel rebar and concrete blocks. The ability of *S.T.A.L.K.E.R.* to so powerfully evoke these places helps demonstrate the effectiveness of environmental estrangement as a design technique that creates a sense of reality other approaches cannot achieve.



Figure 16. Stalkers gather around a fire in the southern swamps, the hidden stronghold of the Clear Sky organization.



Figure 17. Approach to the Brain Scorcher complex in *Shadow of Chernobyl's* Red Forest. Visual noise in the air indicates radiation and psychic assaults from the device.

This allows the *S.T.A.L.K.E.R.* games to readily toy with player emotions, swapping terror, loneliness, melancholy, and exhilaration with ease. In *Shadow of Chernobyl*, for example, deep in the Zone you visit the ominous Red Forest region. It received the highest dose of radiation during the days after the disaster, when the reactor fire was still out of control. Radioactive particles settled on the spruce trees and killed them, turning the once-green forest ginger-red.⁸⁷ Red Forest is still one of the most heavily irradiated areas of the Exclusion Zone, and in *Shadow of Chernobyl* it is also the hidden location of the Brain Scorcher, the psychic field that kills Stalkers who venture too close to Pripyat. At first massive radiation and relentless assaults from Monolith troops bring a sense of white-knuckled action. As you draw nearer the vast electrical substation that houses the Scorcher, you experience brutally escalating psychic assaults. The air turns gold and noisy, while distorted, incorporeal creatures materialize and attack from all sides as the Marked One's own mind turns against him. Inside the Scorcher complex itself you cannot help but expect the worst terrors, given the starts encountered outside. Instead, the entire facility is almost abandoned, forcing you to experience a good 35 minutes of agonizing tension, broken by only two or three encounters made all the more startling by their rarity. The instant you succeed in disabling the Scorcher, though, the military and Monolith troops pour in. What had been an empty tour becomes a blood-drenched race for the exit.

Nihilism by Design

What, then, is the value of environmental estrangement in game or level development? How can it be incorporated into game development's creative grammar?

Author Stephen King once said, "Naturally, I'll try to terrify you first, and if that doesn't work, I'll try to horrify you, and if I can't make it there, I'll try to gross you out."⁸⁸ Similarly, developers do well to have at their disposal a selection of tools to manipulate player immersion, overlapping them to create experiential chains. Environmental estrangement is such a tool, one with broad leveraging opportunity to affect the player in a variety of ways.

Ultimately it is a tool of immersion: in *S.T.A.L.K.E.R.* it creates a sense of place, which is then tuned to suit the needs of the game. It uses the dismal, melancholy setting across its entire media to accomplish this. But the value of environmental estrangement goes beyond simply creating forlorn, gloomy realms, and certainly beyond creating horror. It can even be used to create positive reactions. There is great beauty in *S.T.A.L.K.E.R.*'s ruined buildings, crumbling bridges, and rusted-out industrial parks, while the chaos in Pripyat and the running gun battle outside the power plant itself are nothing short of exhilarating. Savvy developers utilize environmental estrangement as a tool to further other creative goals of a game because players fully immersed in such universes are very easy to startle, excite, frighten, or thrill. *S.T.A.L.K.E.R.*



Figure 18. One of the many abandoned churches scattered throughout the Zone, drawn from reference photography taken during GSC Game World's visits to the region. From *Clear Sky*.

is a dominant example of the technique, with some players returning again and again just to re-experience the atmosphere.⁸⁹

Environmental estrangement must permeate level design, art, story, scripting, audio, and graphics in order to work. As such the design team must share a creative wavelength to ensure consistency throughout all these game components, and the team must also understand

the objective of the immersion they are creating. *S.T.A.L.K.E.R.* is about connecting one's heart to the lonely, inhuman Zone. Other games use the same technique to accomplish completely different feelings of immersion.

Russian developer Ice-Pick Lodge has employed environmental estrangement in the creepy eroticism of *The Void* (2009), a game that sets the player in a gloomy afterlife robbed of color. *The Void* has a hostile sexuality quite unique in games and realized through the application of environmental estrangement to "put" the player in that realm. The same studio also developed *Pathologic* (2005), a story about a diseased town with a dark and hideous secret. *Pathologic's* release pre-dates that of *S.T.A.L.K.E.R.*, and may have influenced the latter's approach. In the case of *Pathologic*, Ice-Pick Lodge employed environmental estrangement techniques to adeptly evoke revulsion in the player, a creeping, skin-crawling horror at first unidentifiable and later overwhelming.

Action Forms, Ltd., another Kiev-based developer, accomplished it in the underappreciated *Cryostasis: Sleep of Reason* (2009), set in a haunted Soviet nuclear icebreaker, where the frigid temperatures are the true enemy. *S.T.A.L.K.E.R.* uses environmental estrangement to make you feel the solitude; *Cryostasis* uses it to make you feel the cold.

Polish studio People Can Fly garnered very positive press with *Painkiller* (2004), a high-action arena shooter with singularly brilliant art direction in its presentation of life after death, visually painting a world in which every player found themselves questioning their own preconceptions of what hell would really be like.

Meanwhile, 4A Games, also based in Kiev, manages with *Metro 2033*, a corridor shooter based on the social commentary-rich science fiction novel by Dmitry Glukhovsky. This game has garnered many comparisons to *S.T.A.L.K.E.R.*, but in truth its use of environmental estrangement is much more about creating sympathy for the desperation of the human condition than about any connection with a place.

So far, we have seen environmental estrangement in games that generally share two key features: a bleakness of philosophy, and nativity in eastern Europe, particularly the former Soviet republics. Whether eastern Europeans are naturally more adept at producing hopeless environments is unclear, but there is no doubt that some of the most dismal and melancholy game settings have originated in that region. However, at this point we do not yet see it widely applied in games elsewhere, though there is no reason why the technique should be limited to work from that area, or limited to “dismal and melancholy game settings.” Perhaps other developers have not yet fully realized its potency as a tool. With the ongoing success of *S.T.A.L.K.E.R.* and the growing perception of eastern Europe as a powerhouse of unique creativity in game development, we may yet see environmental estrangement grow beyond these borders.

For now, though, many Western or Japanese games may be dark, gritty, or grim, but they are almost never disconsolate in the way that eastern European games often are. Even comparable settings are presented differently. Consider Bethesda's *Fallout 3* (2009)⁹⁰, a game with similarly apocalyptic overtones to *S.T.A.L.K.E.R.*, set in a Washington, D.C. shattered by nuclear war. While the devastation in *Fallout 3* is very ably presented, the emotional experience of exploring that wasteland is not at all the same as the experience in *S.T.A.L.K.E.R.* Journalist Shawn Elliott summed *S.T.A.L.K.E.R.* up quite succinctly: “Americans just don't design shooters this way.”⁹¹



Figure 19. Among the game's more terrifying foes, Snorks were once Stalkers, turned feral by exposure to a blowout or other radiation burst. From *Shadow of Chernobyl*.

Inspiration and Influence

In an environment where games are almost never based on literature, *S.T.A.L.K.E.R.* also innovates. *Roadside Picnic*,⁹² the 1972 novella by Boris and Arkady Strugatsky, is the driving influence behind the game. In that story, aliens visited the earth and then left, abandoning some of their outrageously superior technology in areas scattered around the world. Called Zones, these regions were littered with bizarre anomalies that affected the space-time continuum and, like the anomalies in *S.T.A.L.K.E.R.*, were typically deadly to humans. Of course, treasure hunters and scientists (called Stalkers; *Roadside Picnic* pioneered that title) risked life and limb to collect the advanced alien artifacts. One in particular, a golden sphere, supposedly held the power to grant the wishes of its finder.

The title of the novel is a reference to the relationship between forms of life at different levels of intelligence. When we stop for a picnic, lower creatures have no conception of our activities. We are absurdly more advanced. Our most basic actions and tools are incomprehensible. They do not understand what we are doing or why we are there, they just know they want our sandwiches and potato salad. And when we go, sometimes we leave artifacts from our picnic behind: discarded plastic wrap, an empty soda can, a melting ice cube. All these things, so simple to us (indeed, worthless and disposable) are alien and terrifying to the animals. As they creep in to collect our scraps, they are entering a zone of terrible danger, where an unrecognizable object could mean fabulous riches or instant death. They know it is dangerous, but they cannot resist the temptation... as the Stalkers of *Roadside Picnic* cannot resist the temptation of discarded treasures from this alien civilization, one so advanced that we are to them as mice and ants are to us, so advanced they may have never noticed our presence on earth at all. Post-picnic scavengers are, to humans, as humans are to God – or, at least, as we are to entities so far advanced they might as well be God.

Russian filmmaker Andrei Tarkovsky directed *Stalker* (1979)⁹³, based on *Roadside Picnic*, and with a script co-written by the Strugatskys. Produced well before the Chernobyl incident, *Stalker* is a beautiful and melodic film, and intentionally far more

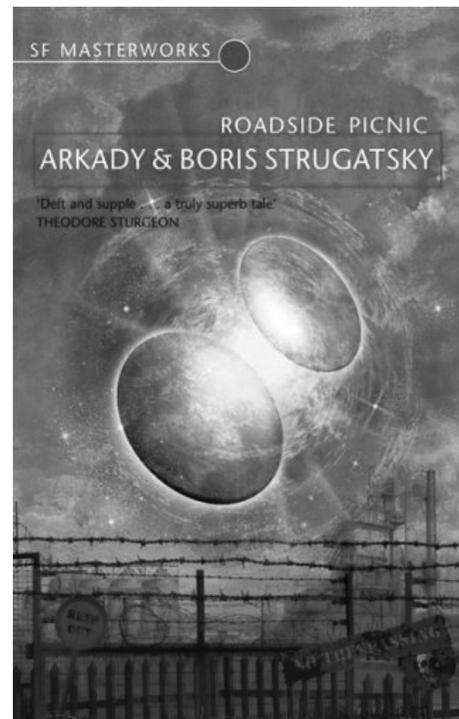


Figure 20. An American edition of *Roadside Picnic*.

nebulous regarding the Zone and its dangers than the novel on which it is based. Since *Stalker's* Zone is heavily guarded and entry is illegal, early on the characters agree to use anonymous titles rather than names. Thus the leads are Stalker, Professor, and Writer, the former making a living by guiding people into the region. The rumor about the power to grant wishes remains the same. In the film, instead of a golden sphere, it is simply a room, a room that Stalker insists must never be approached directly. He claims death lurks invisibly in every inch of the Zone, and that without him Professor and Writer would be killed in minutes. Stalker's incessant warnings and elaborate precautions frighten the others at first, but over time Writer and Professor come to doubt that the Zone is dangerous at all.

Indeed, the trio arrive at the room without injury, and here Professor reveals that he has brought along a small nuclear bomb to destroy the Zone, to prevent evil men from using the room to take power.

"I wouldn't bring anyone like that here," Stalker cries, desperate to prevent the destruction. He needs his Zone as much as the Stalkers of the game need theirs, and the idea of its destruction is unthinkable.

"You are not the only Stalker in the world, my friend," replies Professor, though in the end he decides against destroying the room.

S.T.A.L.K.E.R. draws more inspiration from novel than film, and naturally takes significant liberties in the interest of making the game fun. The concept of the Zone as a place to which some men are irrevocably drawn, despite the dangers and in search of an all-powerful artifact, resonates through all three installments. Whereas Professor was willing to destroy the room in order to prevent evil men from using it for their own ends, *S.T.A.L.K.E.R.*'s Wish Granter is its own self-correcting mechanism. In the game's five "bad" endings, the player does in fact reach



Figure 21. One of the final moments in Andrei Tarkovsky's film *Stalker*. The title character carries his daughter home, while in a particular irony, across the lake looms the Chernobyl Nuclear Power Plant: seven years before the accident, its doomed Reactor Four not yet constructed.

the Wish Granter and wishes for something based on prior in-game decisions – wealth, immortality, power, etc. In every instance the Wish Granter provides exactly what he asks, but in a way that either kills or cripples him. The Wish Granter exists to destroy the men who would use it.

On the subject of men, the absence of female characters in the *S.T.A.L.K.E.R.* games is worthy of note. While this may have simply been a convenience on the part of GSC Game World, it seems odd that a game in development for over six years would overlook something as obvious as this in the interest of simplicity. While the likely truth is that GSC could not be bothered to create the models and animations necessary to include female characters, I prefer to think that the world of the Zone is just not one that would be inviting to women; the Zone is a haunted, violated place that nonetheless is itself a surrogate mother of sorts to the men who live there. Many Stalkers are quick to say they love the Zone (others profess to hate it), and some have gone so far as to worship it. A Stalker's relationship to the Zone tends to be more important than his relationship with other humans, male or female. "I had an... an acquaintance, I guess," says one Stalker early in *Shadow of Chernobyl*. "You don't really make 'friends' here."

If You Gaze Into the Abyss

In an interview, some of the Liquidators – Soviet workers and soldiers press-ganged into cleanup duties after the 1986 disaster – reflected that the Zone calls to you, that once someone has been there, he always has a bit of it inside him, pulling him back.⁹⁴ Even in the real world, it seems that the Exclusion Zone has a certain degree of power over the minds and hearts of people who experience it. It is a physical, touchable, tangible place that has been gathered up, packaged, and set aside. It is not part of this world any more.

And yet the same sun, the same moon shines on us as does on Chernobyl. Men and women do live there; even in this world they call themselves Stalkers. The shattered reactor still generates dangerous levels of heat as it crouches beneath the Object Shelter, a crumbling concrete sarcophagus never meant to entomb it this long. Many of the fire engines that brought Vasily Ignatenko and his fellows to the



Figure 22. Warning signs around the perimeter of the Red Forest.

reactor remain where they parked that April night, still too radioactive to safely approach. The Red Forest lingers on, a resurgent haven for wildlife now that people no longer occupy the region – though stories of odd mutations and radioactive animals persist.⁹⁵ Pripyat still stands, overrun with growth, home to nothing but ghosts and memories.

Did the developers know what the game would do? Did they plan for it and consciously use a technique to accomplish that end? Maybe the folks at GSC just thought they were making a lonely-feeling game set in a world they made a sustained effort to recreate. The term environmental estrangement, as mentioned earlier, is my own. It may come as quite a surprise to developers to hear that their games apparently included it all along. But something has to explain the deftness with which complex emotions and themes are so well presented in some games and so ineptly presented in others. It is like a well-schooled and experienced filmmaker (Tarkovsky, perhaps) shooting the same film as a student who lacks a similar breadth of wisdom and toolset for building emotion through cinema. Environmental estrangement is a tool; not everyone uses it.

I recall moments of terror I felt during my maiden playthrough of *Shadow of Chernobyl*. Deep in a series of underground tunnels, you encounter your first “genuine” mutant: not just a twisted version of local wildlife, but something created by the Zone. Inch by inch I crept through the dim passageway, hesitant to use my flashlight for fear the beam would be noticed.

Off in the distance was only darkness, but I spotted a pair of tiny lights. As I moved closer they blinked out, and then I heard a roar, a ravenous howl like nothing human. I had no idea what had made that sound, only that it was not natural, and that it knew I was there, that it was coming towards me. I switched to full automatic on my brand new assault rifle and held down the trigger. This was a stupid thing to do, because bullets



Figure 23. The power plant in *Shadow of Chernobyl*, once more carefully reconstructed from reference photos.

were rare and precious at that point in the game. I did not have extras to waste painting the blackness with lead. But I was terrified. I did not want to die alone in that dark. I simply reacted at an instinctive level. Thankfully, bullets could kill it.

Shortly thereafter I visited the Dark Valley. In *Clear Sky*, this territory would be a key faction stronghold; in *Shadow of Chernobyl*, it was a gloomy and frightening region of ghosts and solitude. Whereas in most shooters players creep from moment to moment, expecting the worst around every corner, GSC Game World created a universe in which – first of all – there are no corners. Just the environment, there for you to see. And despite the fact that 99% of the *S.T.A.L.K.E.R.* games let you see exactly where you're going, the desire that someone be there to comfort you is never far. Even when someone *is* there to comfort you, they are never enough. You are always alone, always vulnerable. You don't belong here. And you never will. But that doesn't change your need to be in the Zone.

Years later in *Call of Prip'yat* I found myself trudging through the rain in a swampy wetland infested by wild dogs and bandits. The mundanity of my current task – pick up some food for a group of heavily armed squatters at a nearby repair facility, so they would let me in to hunt around for a set of tools – belied the ever present danger of the world. Already, having only played for about three game-days, I was starving, bleeding from a wound, and suffering radiation sickness. I had spent the last two nights sleeping on a stained mattress in the rusted-out hulk of a beached Soviet freighter, co-opted by Stalkers and transformed into a makeshift camp and marketplace. I was supposed to be discovering the fate of lost helicopters, but had quickly learned that establishing myself in the Zone was as important to the success of my mission as finding the crash sites.

Environmental estrangement can be the realization of such places – regions that simultaneously are and are not part of the world, places that, when entered, somehow seal us off from the rest of humanity, and all dreams of home vanish. *S.T.A.L.K.E.R.* is a testament to what games can evoke when they forsake gravel-chewing space marines and damsels in distress in favor of elegantly crafting such a grim and desolate place. As revolutionary as *S.T.A.L.K.E.R.* was as an open-world shooter, it will be remembered for the places it took us.

ENDNOTES

Screenshots and reference photos from the S.T.A.L.K.E.R. games courtesy of GSC Game World or taken by the author. Used with permission. Other photography and maps available in the public domain. Special thanks to Oleg Yavorsky and Anton Bolshakov of GSC Game World (www.gsc-game.com), Ben Hoyt of 47 Games (www.benjaminhoyt.com/blog), Jason Della Rocca of Perimeter Partners (www.perimeterpartners.com), Bill Harris of Dubious Quality (www.dubiousquality.blogspot.com), as well as Jason Dobry, Alissa Roath, Tony Sakey, and Marcus Sakey for advice and edits.

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“

*The religious overtones
aside, the gameplay still
stands up fairly well.*

”

ANDY JIH

ACTRAISER

While many other simulation games already existed by the time Actraiser was released in the US, Actraiser was the first introduction that I had to god-simulation games. From Actraiser, I went to Civilization, to Warcraft, to Civ II, to many others. It opened up my eyes to the world of strategy games and has led me to become a fond fan and appreciator of games of its ilk. While Actraiser has its flaws that I will discuss later, it stands up in my memory for its unique attempt at marrying two disparate gameplay types.

Historical Context

Actraiser was released in the US in November 1991, a few short months after the Super Nintendo Entertainment System (SNES) had been released in the US. Actraiser was developed by Quintet, a Japanese studio, and was published by Enix (which through various acquisitions, mergers, and the like, eventually became Square Enix).

Game Analysis

Gameplay Overview

Actraiser is a combination of an action, side-scrolling platformer and a god-simulation game. The game begins in a cloud palace where the player is greeted by an Angel. The Angel addresses the player as its Master, and then informs the Master that Tanzra, the demon who sealed the Master's power, has taken control of the Earth. The Angel states to the Master that in order to regain his strength and allow Earth to return to peace, he must fight off the monsters that have taken over as well as rekindle the people's faith in him. In order for the people to be able to move back to their lands, the Master must first defeat the first of two bosses. Thus begins the first Action portion of the game. Each action level is filled with various enemies, items, moving platforms, and traps, and each action level ends with a boss battle.

The Simulation portion then picks up shortly thereafter. The player now controls the Angel in performing miracles, defeating monsters, and directing the townspeople in how they should build their city. In this phase, the townspeople will request the Master's presence and ask him to either solve some problems that they are running into or to present offerings and gifts. Once the majority of problems with the city are

resolved, the townspeople or the Angel will ask the Master to fight off any remaining monsters in another Action level. The second Action level is much the like the first, and once it has been completed, the Master then controls the cloud palace and moves on to other cities in the game.

The game has six cities, each of which follows the same general structure of:

- Action – Act 1
- Simulation
- Action – Act 2
- Simulation Resolution

The Action portions of Actraiser are very traditional in the mechanics and controls compared to other action platformers of its time. The player is able to move around, jump, crouch, swing a sword, and use a magical ability. Four magical abilities are acquired in the Simulation portions throughout the course of the game, each of which has varying effects. Before beginning each Action level, the player must choose one magical ability to bring with them.

The Simulation portions are what I consider to be the “meat and potatoes” of the game. In this mode, the player is still addressed as The Master, but he or she controls the Angel in affecting the city, giving its citizens direction on how to build the city. The majority of the Simulation experience consists of flying the Angel above the city, shooting arrows to defeat enemies that continually spawn, casting miracles to affect the terrain, and giving the villagers directions on where to build.

Progression

As mentioned above, the game begins in the cloud palace where the player is greeted by an Angel. Once the player decides to descend to the city below, the Action level begins. At the start of this level, an emblem from the sky flies down and imbues life into a lifeless stone statue of a warrior. From that point on, the player is able to control the warrior character. This one design touch, as little as it may be, assists in painting the picture where the player is playing as a god-like character or simply, as god.

The creators of Actraiser do a fantastic job of incrementally introducing gameplay mechanics to the player without the need for any overt “tutorial level”. The player has a health bar with 8 health points. As with many other action-platformers of that era (see Ghouls N’ Ghosts and Super Ghouls N’ Ghosts) the first Action level takes place in Fillmore, and gives the player a starting environment that is fairly non-

threatening— a tree-filled level with enemies that are similar to animals found in the real world such as birds and apes. The range of abilities for the player is simple to dive into: run left and right, jump, duck, and swing a sword. The enemies are quite easy, and the player can make her way through the level without too much difficulty avoiding thorny obstacles and enemy attacks.

The boss of this first level in Fillmore is a Centaur Knight, whose two attacks consist of a quick forward stab with his spear and summoning lightning that strikes the ground three times. As with the rest of the first Fillmore level, the boss is fairly easy to defeat, and provides an excellent introduction to Action portions of the game. Once the player has defeated the Centaur Knight, the emblem flies back into the sky, returning the warrior back to its stone form.

The game then shifts into the Simulation mode for the city of Fillmore. The lighting bolts shoot out of the sky in front of the city's central building, and two small people figures walk into the building. The Angel then informs the player that now that people are able to inhabit this city, it is the Master's responsibility to help these people rebuild their city as well as defeat the various monsters' lairs in the surrounding areas.

The Simulation level in Fillmore introduces new gameplay mechanics gradually, making it easy for the player to understand. First, the citizens of the city inform the player that they are unable to expand and build their city with the trees surrounding their city center. In order to clear these trees, the Angel instructs the player that he or she can perform various miracles, such as Lightning, Rain, Sun, Wind, and Earthquake. These abilities have various functions on different terrain types, allowing the player to solve problems in the city as well as defeat enemies. Lightning, Rain, and Sun all affect a small area on the map that the player designates, while Wind and Earthquake affect everything in the city. These miracles require a certain amount of magic points to cast. As the player gains levels, the total number of magic points available increases. Once the player begins to clear trees surrounding the city's main building, the player is only able to cast Lightning 4 times before running out of spell power (SP).

SP regenerates gradually over time, but the primary way in which the player can increase the SP count is by destroying monsters that spawn from lairs. The Angel is able to kill these monsters by shooting arrows or by using the Lightning or Wind miracles. If the Angel collides with the monsters, then the Angel loses health points (which are the same amount of health points that the player has in the Action levels). If the Angel ever reaches zero health points, the Angel is unable to fire arrows and the player must wait for his or health to regenerate. The various monsters in the game have different abilities. While all of them can simply fly into the Angel

to damage it, the monsters are also able to affect the citizens of the city. The black bat-like monster can fly over the buildings and steal and kill a small handful of citizens. The blue demon can shoot lightning, burning buildings to the ground. These monsters decrease the total population and slow down the player's progress in expanding the city.

When all of the trees in the surrounding areas have been cleared, the Angel can then direct the citizens to build out their city in a particular direction. Once they begin to build farms and buildings, expanding their reach, the citizens inform the player that they have learned how to hunt and kill monsters. The player needs to direct the citizens to build on top of the monster's lair, and once they reach the monster's lair, they are able to seal it, preventing monsters from spawning any further.

When the player seals the first monster lair, one of the citizens informs the Master that he has been having premonitions, and that a nearby cliff is emitting a magical power. The player is then instructed to cast Lightning on top of the cliff face. After doing so, the citizens find and offer the Master a spell, Magical Fire. This spell and other spells to be found throughout the rest of the game in the Simulation levels, and they can only be used in the Action levels.

As the citizens continue to build more farms and huts, the population count increases for the city, which is functionally the experience meter for the player. When the population reaches a particular amount, the player levels up. The player's health bar increases, as well as the maximum amount of SP. The health bar is shared between the Action and Simulation levels, so building the city to its maximum capacity is one of the main goals for the player in order to make his or her playing experience in the Action levels much easier.

Once the player seals more monster lairs with the assistance of Fillmore's citizens, they offer a gift called "Source of Magic." Acquiring a "Source of Magic" increases the total times that the player can cast a magical ability such as Magical Fire in an Action level. Throughout the various Simulation levels, the player will be able to acquire more Sources of Magic, enabling the player to cast magical spells more often in the Action levels.

After the player seals the final monster lair in Fillmore, one of citizens informs the player that he has been having premonitions again, though this time it's a recurring nightmare revolving around an evil Minotaurus creature. Now that all of the monster lairs have been sealed in Fillmore, the only task left is to go to the next Action level and defeat the Minotaurus.

From here, the player returns to the sky palace where he or she can choose what magical spell to bring, though the only spell available at this point in the game is Magical Fire. As with the first Action level, an emblem flies out of the sky and

descends into the warrior statue, bringing it to life. The level is set in a dark underground dungeon filled with bats, statues that shoot fireballs, and various other enemies. Once the player makes his or her way through the level, he or she arrives at the Minotaurus, which is yet another relatively easy boss to defeat.

After the player has succeeded, the game returns to the Simulation view of Fillmore, showing that all of its citizens are content now that monsters no longer plague their land. They offer the knowledge of how to build bridges as a gift that the player is then able to bring to others that need it. The player is now able to return to the sky palace and travel to the other cities that require assistance.

This general formula is then repeated in each following city. Each city has problems that the Master needs to address, ranging from famine, to monsters attacking the villagers, and other such situations. Throughout the progress of each city, new situations and problems arise that the Master must solve through the use of his various miracles.

Religious References

For sake of full disclosure, I'm squarely atheist. When I first played Actraiser I was in second grade, so the religious overtones flew over my head. By and large the religious references and storyline don't have too much of an effect on the actual gameplay. The general conceit of "There is an evil force, it's your job to save the world," is so commonly used and re-skinned in games and books and movies that it didn't strike me until I replayed it later how overt the developers were in utilizing religious characters, symbolism, and themes.

The player plays as the Master, and perhaps taking a cue from other "God games" that came before Actraiser, the Master is never seen; when the player is playing the Action sequences, an emblem from the sky flies down and imbues life into a warrior statue. During the Simulation levels, the Master is also never seen; he instructs and directs the Angel to carry out tasks while he casts miracles from above. While the game makers could have simply had the player control the warrior character and control the angel without this added explanation, this tiny detail goes a long way in giving the player a greater sense of who he or she is controlling. The player isn't simply a warrior fighting monsters or an angel guiding citizens; the player is an all-mighty being waging a war against an evil force to save human kind.

Other religious references are quite apparent, ranging from the Master's home being in a palace in the clouds to having an Angel as the Master's primary companion/assistant. In Actraiser 2, Actraiser's sequel, it is revealed that the Master's original name was God and Tanzra's was Satan. Due to concerns about the potential controversy in the U.S. of directly referring to the characters as God and Satan, their names were changed in Actraiser, but the religious allegory remained intact.

Each of the cities that the Master visits throughout the course of the game is related in one way or another to some sort of religion, mythology, or cultural history. The two bosses in Fillmore, the first city you encounter in the game, are a Centaur Knight and a Minotaur, both of which originate from Greek mythology.

In the next city, Bloodpool, the first boss is a manticore, also of Greek origin, and the second boss is a wizard who turns into a werewolf, both of which have origins in European folklore.

In Kasadora, a clearly Egyptian-inspired city, the two bosses that the player encounters are a sand monster and a giant Golden Pharaoh head.

In the village Aitos, the first boss you encounter is a water serpent, while the second boss is a flaming wheel with an eye in the center. While serpents have many and varied stories in different mythologies, the flaming wheel definitively conjures up images of Cyclops from Greek mythology as well as coming from the underworld or hell, being on fire and the entire level taking place underground.

Marahna is a tropical and rain forest-like area that has a giant plant-like monster and Kalia, a snake god, as its two bosses. The giant plant-like monster is a fairly generic enemy. The snake god, or Kalia, is a direct reference to a popular story in Indian mythology where Krishna battles a multi-headed snake monster by the name Kalia.

Lastly, in Northwall, the two bosses that are encountered are a merman and an Arctic Wyvern. Mermaids and Mermen have a long and storied history, originating all the way back to Assyria, and wyverns have origins in medieval history.

At the end of the game after the player has defeated Tanzra, the game takes the player through every city and shows the changes that have occurred in each city over the course of the game. The Angel then informs the player that once people are content and don't have any impending threats, they start to forget that the Master exists. The developers could have ended the game simply with an overview of each of the cities, but by appending this commentary, as heavy-handed as it may be, they are making a statement on how people who don't have major catastrophes or disasters in their lives often lose sight or forget about religion or the possibility of forces larger than themselves.

Conclusion

It is unclear whether the creators of Actraiser intended to push a message of Christianity as the “correct” faith or if they were simply using Christianity as a basis for widely recognizable benevolent imagery. In either case, the end result is the same, as the game portrays any and all of these “other” creatures and religions as malevolent. In the Simulation portion of Marahna, the primary plot point revolves around the villagers worshipping another God. The Angel even states to the Master that, though the villagers seem happy, something is amiss. It is later revealed that this other God is evil and the player shortly defeats this God.

The religious overtones aside, the gameplay still stands up fairly well. Compared to today, the action portions of the game don't control very well anymore and the simulation has less depth than many other sim-type games of its time (often times consisting of introducing a problem, presenting a solution, introducing another problem, presenting another solution, etc.). How well players play in the Simulation levels, both in finding items, magical spells, scrolls, and increasing their level have a direct effect on how they are then able to play in the Action levels. That said, Actraiser is a great early example of how two disparate gameplay types could be integrated and contribute to one another's gameplay.

“

Grim Fandango is a game I play every few years as a touchstone for story and puzzle design and just plain fun.

”

STEPHEN JACOBS

I <3 FANDANGO

“What’s your favorite game?” is probably the question I’m asked most often when people find out I’m a game professor. Of course, it’s an impossible question to answer without qualifications; too many games of too many types to have just one. I have many favorites across many genres (and of course, I’m old) so the list encompasses original arcade games like *Tempest*, *Joust* and *Dig Dug*, “mainframe” games like *Adventure* and *Star Trek*, early Personal Computer games like *Hitchhikers Guide to the Galaxy*, *Prince of Persia*, *Lode Runner* (Apple IIe) and *Defender of the Crown*, *Rocket Ranger*, *Sim City*, and *Tetris* (Amiga) Not many of my favorites are on consoles, as I didn’t own one til the PS2. That said, as someone who’s always had a soft spot for story-driven, adventure games, there’s one that leapt to mind when I had a chance to write a chapter for this series.

Grim Fandango (GF) has always held a soft spot in my heart. What could be better than a “Film Noir”-Style game played out by Calicas; the Mexican “Day of the Dead” skeleton figures? Nor am I the only one who holds it in high esteem. Though it’s over 11 years old (released on 10/30/1998, just before the Day of the Dead that year⁹⁶) GF stands out as a jewel in the history of computer games; one that has continually charted on numerous “Top Games of All Time” lists since its release, most recently as # 20 in IGN’s Top 25 PC Games of All Time in 2009.⁹⁷

While much of the attraction of the game is its content, several technical advances contribute to its high ratings as well. GF was groundbreaking for LucasArts on several levels. It used 3D objects and characters rendered in front of static backgrounds for the first time in a Lucas Arts game. The comparatively low graphic fidelity of the 3D at the time matched perfectly with the art direction of a world filled with papier-mâché skeletons, and it still works today even in an age of photo-realistic 3D. In another technical advance, GF players knew when something in the environment was “interactive” because the head of the game’s main character/player avatar, Manny, would move in the direction of the object. The engine also supported synching of dialogue and body movements. This made the game’s interface more natural and immersive than the previous practice of having the player move a cursor over the entire scene to search for items that could be interacted with.⁹⁸

For an adventure game to succeed, it needs to have rich story and characters, balanced with challenging (perhaps in some cases demonic) puzzles, and be set in a lush and detailed world that supports them both. All the elements need to be balanced to provide a rewarding experience worthy of replay. Tim Schaffer, Grim Fandango's lead, and a writer and creator of numerous, witty, well-crafted adventure games, is a master of each of these elements.

"Replay?!" I hear the adventure game haters in the audience cry, "how can some point and click, hopelessly locked to rails adventure game be worthy of replay?" "Keep reading," I answer.

Story and Character in Grim Fandango

Adventure games like GF are often manifestations of the "Hero's Journey," Joseph Campbell's "Monomyth"⁹⁹ path of trials, setbacks and successes influenced by Freud, Jung and Aristotle's "Poetics." Most genre tales and Hollywood feature films also make their way down this well-beaten path.¹⁰⁰ Many, like GF, even lead the player through an afterlife, or on a trek to paradise. But never before, or since, has there been a journey through the afterlife to paradise like the one in GF.

For settings, adventure games often draw on myth, legend, fiction or film genres as well as other games. As briefly mentioned above, GF is first and foremost a "film noir" flavored video game. These dark crime dramas, characterized by cynical, world-weary characters living two-bit existences in darkly-lit, archly-framed films, first emerged during World War II.

The opening screen and cinematic of GF solidly set this period tone and style of the game. First it starts with ominous music and a screen that shows an ashtray with a smoking cigarette in the foreground, and a calaca Mariachi quartet knick-knack behind it as the title fades in and out. Cut to a long shot of a dimly-lit office space with a dejected figure in a forties suit and hat sitting at a table. An opening door creaks behind the camera, light spills into the office from the hallway.

Manny: "Sorry to keep you waiting Mr. Flores I'm ready to take you now."

Flores: "Take me, take me where?"

Cut to a close up of Flores' foot nervously tapping beneath the table

Manny: "Now, now, there's no need to be nervous."

Flores: "Nervous.. No..."

Cut to close up of Flores, his head tracking as he follows Manny across the room

Flores: “...just your appearance, it’s a little intimidating.”

Cut to a medium shot of Manny in full Grim Reaper drag, scythe and all.

Manny: “Intimidating? Me? But I’m your friend. My name is Manny Calavera. I’m your new travel agent.”

This is not your average film noir, as it’s “mashed-up” with a variation of the Aztec afterlife. By the end of the opening cinematic we have learned that the souls of the dead must make a dangerous journey of four years’ time to the Ninth Underworld, “the Land of Eternal Rest.” The game’s story and structure mirror the journey, as you play during four different “Days of the Dead” (when most of the souls of the dead travel to the world of the living to visit their descendents) across the four years. The game’s name is taken from part of a poem cited by Olivia (the chief villainess of the game, who runs a beatnik’s poetry café, the Blue Casket)

With bony hands I hold my partner
On soulless feet we cross the floor
The music stops as if to answer
An empty knocking at the door
It seems his skin was sweet as mango
When last I held him to my breast
But now we dance this grim fandango
And will four years before we rest

Manny is one of several agents who work for the Department of the Dead (DOD) as travel agents selling “packages” to the newly departed. Agents like Manny carry collapsible scythes and visit the world of the living dressed in cowled cloaks to “reap” the souls of the newly departed and bring them to their offices in the town of “El Marrow” (and Manny’s Scythe is a versatile and important tool used throughout the game as a cutting tool, lever and more). Those souls who led saintly and/or frugal lives are eligible for a ticket on the Number Nine, an express train that shoots off to the Ninth Underworld in just four minutes instead of four years. For those who led less exemplary lives, there are a range of several other “travel packages” including the “Excelsior Line”; a walking stick with a heavy brass ball inset with a compass for a handle (the package that Flores ends up with) or being shipped parcel post. At the end of the cinematic, Manny despairs of his lot and expresses a need for a lead on a “rich, dead, saint.”

So, like other Film Noir characters, Manny is an everyman; a simple guy, just wanting out of his “dead end” job at the agency. He’s not even sure what he’s done to end up there. He is, however, about to be caught between a corrupt machine and a revolution against it, and it’s all put in motion when he steals a hot lead.

As the game begins, Manny's boss, Don Copal tells the team to "Thank their lucky stars and get in their Friggin cars." to collect the souls of the victims of a "Code 3" mass gazpacho poisoning. After getting some information (and a lotta lip) from Evaluna, the Boss' Bronx-accented secretary, Manny heads down to the garage to collect his car and driver. When he gets there he finds that Domino Hurley, the office bully with a hot sales streak, has gotten in his way again by telling Manny's driver to take the rest of the day off, and all the other drivers are gone. The only being left in the garage is Glottis, the mechanic.

Manuel Calavera: Glottis... Glottis... is that a German name?

Glottis: Oh, no. My roots lie not in any Earthly nation's soil. I am an elemental spirit summoned up from the Land of the Dead itself and given one purpose, one skill, one desire... TO DRIVE. Or, to change oil or adjust timing belts if no driving jobs are open.

Glottis is too big to get in to a standard car and can't drive one without a work-order from the boss. Manny promises to get the work order and convinces Glottis to alter the car to fit while he's gone.

The relationship that emerges between Manny and Glottis is a huge piece of what makes GF work. The two of them make for a Steinbeck-like, "George and Lennie" kind of pair. While all the voice acting in GF is strong, Glottis' actor is spectacular and really builds the George and Lennie vibe. In addition to devotion, simplicity, size and strength, Glottis brings a magic touch with any kind of vehicle and a literal "need for speed" that will be critical at points in the game.

When Manny eventually gets on the road with Glottis, he's once again late to the party, and there's only one victim left to collect; another loser. This failure is the one that sets Manny down the path to steal one of Domino's leads, Mercedes "Meche" Colomar, who looks like a perfect candidate for the Double N! Manny returns to Glottis and the "Bone Wagon," the DOD car Glottis has chopped a second time, this time for speed and style. The car now looks like it came right out of a Big Daddy Roth¹⁰¹ cartoon, and in it they beat Domino to collect Meche.

Once back at the office, Manny is perplexed to see that the department computer assigns Meche to the four-year journey even though she's led an exemplary life of service. Manny goes to investigate with Copal. Copal then locks Manny in Glottis's office to await the arrival of the authorities who will decide his fate for illegal car modification, stealing a lead from another salesman and then losing her. Manny is guilt-ridden over Meche's misrouting due to his interference and is determined to get out and help her on her dangerous journey.

But our hero is not lost. Manny is rescued by Salvador “Sal” Limones. Limones is a former DOD Reaper, and now the Che Gueverish leader of a small underground organization (literally as it’s in the basement of the DOD building) the Lost Souls Alliance (LSA). Also in the basement is Eva, who’s has been spying for the LSA for a year. Limones tells Manny that a conspiracy runs through the heart of the DOD to deny the saintly their tickets on the Number Nine and sell them to the undeserving. Limones tries to recruit Manny into the movement, but Manny just wants out to help Meche. They strike a deal and after Manny gets Sal and Eva what they need, Sal takes him to a tunnel that will lead him to the forest outside of El Marrow.

Meanwhile Hector LeMans has arrived. The evil mastermind of GF, LeMans is the first of numerous Casablanca inspired characters and set pieces that play throughout the game and is reminiscent of Sidney Greenstreet in size and speech. Meeting with Copal and Hurley, LeMans determines that someone must pay for losing Meche. LeMans pulls a piece, does away with Copal, and promotes Domino, making him responsible for reclaiming Meche.

When Manny exits the tunnel he discovers a despondent, recently fired Glottis, who says that firing him was like ripping the heart out of his chest and throwing it away. Being demonstrative and not too bright, Glottis then demonstrates. The player must then get Manny past a pack of large spiders that has collected around Glottis’ heart and return it to him. Then the two must add some lifts to the Bone Wagon, get around some flaming beavers and make their way to Rubacava.

Rubacava is the next large town on the trek to the Ninth Underworld. Manny acquires a job mopping up in a diner and awaits Meche, as they must surely have passed her since she was on foot and they had a car. Thus endeth year one, which sets up the story and introduces us to most of the main characters.

A common characteristic of many “Hero’s Journey” and film noir tales is that some event, or series of events, kicks the main character out of his normal day-to-day life to reach new heights (or stoop to new lows) he wouldn’t have reached before. Manny’s obsession to find Meche has fired him to grow, deceive and succeed. The ends will justify the means as he seeks to save Meche, get her a ticket to the Number Nine and bring down the conspiracy in the process. Granted it’s mostly the bad guys who suffer as Manny is being pursued by Domino and/or Don Copal throughout the game.

At the beginning of the second “Day of the Dead,” Manny has transformed the diner into “Calevara’s Café.” A joint with a handful of roulette tables that’s a nod to “Rick’s Café Americain” in Casablanca (kinda rhymes with Rubecava, don’t it?). Manny and Glottis are even wearing white dinner jackets and Glottis plays a piano and sings a song to a “special lady,” the Bone Wagon. Rubecava itself is somewhat like Atlantic City, casinos and racetracks are side-by-side with a working shipyard.

This Horatio Alger-like ladder climbing will happen again in GF. At the end of the second Day of the Dead, Manny's pretty much back where he started at the end of the first one, only he's swabbing a deck instead of a diner. At the beginning of the third Day of the Dead, Manny's captain of the ship, as his drive to save Meche continually pushes him (and Glottis) further.

After finding and reconciling with Meche at the end of the third Day of the Dead, Manny is faced with the challenge of getting her (and others they've saved along the way) onto the train and across to the Ninth Underworld. As LeMans' criminal network has stolen the tickets from their rightful owners, Manny and Meche must get them back. In the process, a disguised Manny will have to work his way into LeMan's good graces and become the salesman he never was back at the DOD.

At the end, Manny, Meche and Glottis return to the Number Nine with the stolen tickets for Meche and the others. Manny is issued one of his own as a reward for destroying the conspiracy and returning the tickets to their rightful owners. The couple leaves Glottis at the train station (no demons allowed in the 9th Underworld, but he'll be in charge of a group of mini demon mechanics who care for the train and revere him as a God). Locked in an embrace on the train, they head off into the unknown that is the afterlife.

Cue credits.

While Manny and Glottis are the two main characters in Grim Fandango, and have the lion's share (and the lines' share) of the witty dialogue that runs throughout this game, even minor NPC's get their shining moments.

For example, at some other point during the first Day of the Dead, Manny will have to visit a street fair (The first time I played I went there as soon as I left the DOD, drawn by the music). The fair features a balloon-twisting clown. This NPC's purpose is to provide you with both fully-realized sculptures (animals or a balloon portrait of Robert Frost) and un-inflated balloons ("worms") that are key pieces in solving critical puzzles. The character itself could be a simple, run of the mill NPC but instead it's got a Jack Nicholson-like voice and bad attitude. Interaction between Manny and the clown offers numerous gems, but this is one of my favorites.

Manny: "Some festival, huh?"

Balloon Twister: "Yeah, pretty busy. My Carpal Tunnel Syndrome's acting up."

Manny: "But you don't have any... tendons."

Balloon Twister: "Yeah, well you don't have a tongue, but that doesn't seem to shut you up, now does it?"

Or take the coroner Membrillo, who Manny must trick into declaring the death of a sailor so Manny can take his place aboard a ship. One moment philosophical, as he searches a corpse for identifying information...

Manny: What exactly are you looking for?

Membrillo: I am digging for a treasure that part of me does not wish to find. For when I discover that sad doubloon that tells me who this poor soul is, my reward is not riches but the chance to make a phone call and break somebody's heart.

At another moment, not so philosophical:

Manny: How do you do this job?

Membrillo: Without becoming jaded you mean? My secret to happiness is that I have the heart of a 12 year-old boy. I keep it over here in a jar. Would you like to see it?

Manny: NO!

Membrillo: Sorry. Old coroner joke.

Puzzles in Grim Fandango

Puzzles in Grim Fandango are multi-part and extremely challenging. For the game's 10th anniversary, Schaeffer released one of the original game design docs (titled a "puzzle document" and dated April 30th, 1996) to the Internet. The document describes eighty puzzles and numerous cut scenes. Several pieces of the game described in the document weren't completed due to budget and release pressures, others were altered in production.

Mechanics in adventure games haven't changed much from the time of text adventures, to 2D point-and-clicks to the early 3D point-and-clicks like GF (and perhaps, some would argue, even to today's adventure games). Exploration of environments and collection of darn near anything clickable are two of the primary mechanics in GF, especially as there's no inventory limit. In GF the player drives Manny around the space and navigates a dialogue tree to talk to NPC's, so it's pretty straightforward.

It's this kind of limited interaction that gives some gamers a bad taste in their mouths when it comes to adventure games. But with deep dialogue trees that can be skimmed the first time and mined in later play sessions, along with some Easter eggs and other hidden content that can emerge, GF stands up to replay.

What's more, after Manny meets Sal Limones, "Non-linearity rears it's repulsive, but fascinating head!" (according to the puzzle doc) The rest of the stages will have two or three chains of puzzles that can be worked on simultaneously, part by part, until the end of Day of the Dead four when the game closes in on its conclusion.

Just because there's a limited mechanics set doesn't mean that the puzzles are easy. The sequence described below is listed as three separate puzzles ("Open Tube Room," "Jam Door Open" and "Intercept Message") in the puzzle doc, but I tend to think of them as one large puzzle. They illustrate the kind of "off-the-beaten-track" thinking needed to survive a Schaffer-written adventure game.

Once Manny has resolved to steal a lead, he must hack a pneumatic message system that delivers the client assignments to the agent's offices.

To do so he must fill the "worms" acquired from the clown with two different packing solutions that create a solid foam. You've seen these solutions used earlier in the game and they'll be of use during the fourth Day of the Dead as well. The solution filled balloon must be sent down the pneumatic tube message system, forcing the janitor to open it. Manny then has to flip the deadbolt to keep the tube room open and then block the tube with a playing card from his office deck that must be perforated with Eva's hole punch so that it won't blow away. This will allow him to jam the tube long enough to read a message meant for Domino.

To have collected the items needed to accomplish this goal of stealing, the player will have to have collected the cards from Manny's office at the beginning of the game or returned to search it at some point. A visit to Eva's desk is required for the hole punch, a visit to the street fair for the worms, a visit to the packing room for the foam fluids, a return to the office to send the balloons down to the machine room and more than one trip to the machine room. Perseverance and trial-and-error (the scientific method) is alive and well in GF. This is a game for adventure aficionados or novices with a walk-through guide grasped tightly in their hot-little hands. I cheerfully admit to having used a walk-through myself.

The Detailed World of Grim Fandango

None of this would work if the world in which the game occurs wasn't incredibly well-conceived and detailed. Many of the puzzles and the fine touches come from the basis of a world populated by skeletons.

For example, Sal Limones and Evaluna don't want to release Manny to follow after Meche. As a mere administrative assistant, Eva doesn't have the level of access to the DOD computers that Manny has. The biometric key the system uses to provide higher access is dental scans of the agents' teeth because skeletons don't have

fingerprints. So, they want to keep Manny around for his pearly whites. To win his freedom, Manny will have to get Domino's mouth guard (the ex-boxer has a punching bag in his office) and Bondo from Glottis' tool shed to make a cast of his teeth. Once Eva gets the cast, Manny can leave El Marrow and go after Meche.

Another plot device that arise from the characters' unique life (or post-life) circumstances is the sprouting gun. When Don Copal eliminates Dom he doesn't "fill him full of lead." His "piece" is more like a squirt gun, spraying sprouting fluid that transforms animated skeletons to lovely, inanimate gardens. Coroners must root through the gardens to find identifying markers of the dead, florists in the Aztec afterlife are eventually driven mad by the fact that their agricultural avocation is tied to a final death, and Don Copal will eventually meet his end in his elaborate greenhouse.

Other devices and set pieces arise from the historical time period in which Film Noir flourished, the 40's and 50's. Sal Limones' character is reminiscent of Che Guevara, the Cuban revolutionary whose Marxist awakening and revolutionary career began and flourished in the late 40's and through the 50's. Many characters and environments are styled in reference to Casablanca and other period films.

Film noir isn't the only period piece referenced in the game. Manny finds poetry, Beatniks and revolutionary texts in the Blue Casket club. He'll take the texts to inspire the Sea Bees (merchant marine nautical mechanic Elementals that look like big bees) to rise up and agitate for a union. This is part of Manny's plot to acquire tools for Glottis so they can both ship out on a freighter to pursue Meche, of course.

GF's overall architecture recalls the aforementioned Atlantic City, San Diego and Las Vegas, (depending on the specific afterlife city) mashed up with Aztec and Mayan architecture. It all feels right for the world of the game throughout. The only exception to this "look and feel" is Manny's brief visit to the land of the living to collect a soul. The city he's driven through, and the diner he enters, (the scene of the "Code 3" mass gazpacho poisoning) is a hilarious, collaged love-child of Norman Rockwell and Romare Bearden. It's a great contrast to the rest of the afterlife and it makes the living look truly bizarre.

Replay.

GF is a game I play every few years as a touchstone for story and puzzle design and just plain fun. In much the same way as with favorite books or movies I'll find new or forgotten dialogue in the game, find new ways to sequence the non-linear puzzles or discover an Easter egg. Should this inspire you to want to play GF, like many older games it can be hard to get a copy of and have it run on a modern machine. Some patches can be found at the Department of Death website¹⁰² (a fan site that had active postings up til mid 2009) If you've got a copy running but get stumped by a puzzle, walkthrough guides still abound on the web. If you can't find a copy, or get it to work on your machine, check out one of the several sets of play-through videos on YouTube. Just be sure to experience it at least once, and ideally often.

ENDNOTES

⁹⁸ http://en.wikipedia.org/wiki/Grim_fandango

⁹⁹ "Top 25 PC Games of All Time " <http://pc.ign.com/articles/101/1011624p2.html>

¹⁰⁰ http://en.wikipedia.org/wiki/Grim_fandango

¹⁰¹ <http://en.wikipedia.org/wiki/Monomyth>

¹⁰² JACOBS, S. 2007. *The Basics of Narrative*. In C. Bateman (Ed.), *Game Writing: Narrative Skills for Videogames* (pp. 25-42). Boston: Charles River Media

¹⁰³ <http://www.bigdaddyroth.com/>

¹⁰⁴ <http://www.grim-fandango.com/downloads.php#patch>



“

*Did you really care about
the characters in this story
or were you just going
through the motions for
the good ending?*

”

KIRK BATTLE

FALLOUT 3

Fallout 3 is a bold attempt at creating an emergent narrative. It is a careful blend of branching RPG dialogue trees, emergent gameplay, and a vast space to explore. Relying on neither a purely procedural system nor a linear one, it comes the closest to achieving what Espen Aarseth originally conceived of in his book *Cybertexts*. The game is an ergodic text, whose details and characters are found and explored in any sequence.

The original *Fallout* tempered its player experience by having the needs of the Vault be in conflict with the outside world. You have to collect the water chip in a set amount of time, forcing you to choose between stealing the chip or fixing the water pump for the ghouls living in Necropolis. The Vault's xenophobic isolation is reflected in groups like the Brotherhood of Steel who won't accept outsiders and the Super Mutants, who wish to use the FEV virus to mutate all that remains of humanity. The sequel to *Fallout* was much more broad and humorous, dealing with the difficult question of how the world should progress after nuclear war. The Enclave are the remnants of the United States government yet in order for them to reassert and rebuild, most of the people in the Wasteland need to die off. After hours of dealing with gangs, slavers, mutants, ghouls, and violence, the game's ultimate question is whether or not it is even possible to go back to the way America used to be. Alan Cook¹⁰³ comments that the one consistent theme in all of the games is the idea of the player being a rarity due to their education. He writes, "Their secret knowledge of what came before, modern technology, science, and history make them all-powerful in a powerless world. The post-apocalyptic world knows nothing of the world that was, that perfect utopia. They know a poisonous, hostile world. Only the hero truly knows the breath of human knowledge. Can he use it to save them all?" If there is a basic question that drives every game in the series, it's whether or not there is much one can do to help after the bombs drop.

Fallout 3 builds on these themes and brings its own take to the table. The main story quests draw heavily on Cormac McCarthy's *The Road*¹⁰⁴. In the book, an unknown disaster has kicked up a major dust cloud over the atmosphere and humanity is on the way to extinction. Most of the techniques for survival that are practiced in the book are core gameplay mechanics in *Fallout 3*. The constant act of scavenging through boxes for whatever junk can be found is one of the most consistent activities in the game. Due to the scarcity of resources, most of the surviving people have turned to violence and cannibalism in the book. Raiders and Super Mutants leave evidence of their cannibalism throughout the game. There is even a stat boost for it if the player decides to try it for themselves. Food is almost always irradiated meat or canned. In the book, since most organic plants cannot survive, there is no other source of food besides cans or what few animals are alive.

In other ways the book is fairly different. *The Road* is essentially an extinction scenario, the human race is probably not going to make it, and the characters all struggle to find meaning in survival. The world of *Fallout 3* is passing out of this dark phase. After 200 years the radiation levels are beginning to fade and people are slowly able to carve out a real living. Blogger Ike Reeder¹⁰⁵ comments that the book's isolation simply cannot translate well into a video game. The Man and Boy have to avoid most of the people they meet because most people are stealing and killing to stay alive. In *Fallout 3* civilization is slowly beginning to rise up, albeit under martial law. What remains consistent is the same issue that Alan Cook brings up about all of the *Fallout* games: what can the person who knows the ways of technology and civilization bring to an area that is on the verge of barbarism? Is there even a point in trying to change things?

The emergent narrative focuses on giving as much authorial control to the player as possible. The difference between the two narrative aesthetics in games, linear or emergent, lies in their basic design principles. Jesper Juul explains in *Half-Real*, "We can outline two basic ways in which games are structured and provide challenges for players: that of emergence (a number of simple rules combining to form interesting variations) and that of progression (separate challenges presented serially). (5) The test for which category a game falls under is simple: when you get stuck do you look up a walkthrough of step by step solutions or a strategy guide? (71) The genre of game the emergent design creates is typically called a sandbox as a consequence of its open nature. You can do anything and go anywhere within the game's broad set of rules.

The enormous size of *Fallout 3*'s world contributes to one of the inherent limitations of the emergent narrative: it is impossible to explore all of it in one pass. Proceeding one way through a section of story means that that the consequences of the other path are never explored. As the different outcomes slowly combine along with choices about character development, the player begins to generate a unique

experience for themselves. Speaking personally, many experiences I had in the game were recounted differently by other players. These choices are represented both in the game's rewards as well as the narrative. For example, help the old NPC Agatha find a better violin and she'll play it on the radio. Search through the Wasteland until you find some music sheets and she'll give you one of the best guns in the game. Players who choose to simply rob Agatha may end up with the same reward but with different feedback.

Blogger and game designer Steve Gaynor outlines in a series of posts on Immersive Gameplay¹⁰⁶ three levels of control in games. A player has a micro-level of control when all they are deciding is minute details. Which gun to use, how to tackle a combat situation, or which move is the best. Numerous action games like *Modern Warfare 2* or *God of War* would fall into this category with their roller coaster aesthetics and setpieces. Mid-level control is picking whether or not to do a mission or making choices that effect the outcome of an event. Wide ranging RPG's like *Mass Effect* or *Fallout 3* feature this design along with a growing trend in action games to have light RPG elements. High-level control is when the game exerts no authorial control whatsoever. Games like *The Sims* or *Civilization*, where the player can do anything under a broad set of rules, are the prime examples. As a game, *Fallout 3* engages us with choices at all three levels.

These levels of control are complimented by having scaled goals in the game. Hirokazu Yasuhara, a senior design director at Namco Bandai Games explains in an interview with Gamasutra¹⁰⁷ that every game should maintain three levels of interesting goals for a player. Short goals are getting more ammo or defeating an enemy, mid-goals are getting to a checkpoint or beating a level, and long-goals is the overarching resolution of the game's narrative. The player must constantly be reminded of these goals in varying amounts depending on the range, the long one requiring constant reaffirmation to keep the story coherent. The emergent narrative, with its hands off approach, reminds the player of these goals by giving them be choices about how they will proceed.

Fallout 3 illustrates this principle elegantly in its tutorial. The vault is a contained space where you can quickly see the effects of your actions. You are born and offered a multitude of choices right from the start. The player is asked to first pick their gender and appearance. Subsequently stats are selected while they grow accustomed to moving about the world as a child. Preparing the player for engaging

with moral dilemmas is done with the G.O.A.T. exam, which postulates several bizarre hypotheticals to the player. Shooting and conversation are all taught as the player slowly gets older and explores the Vault. The final section of the tutorial begins when you turn 19 and are forced to pursue your Father. What is important about these moments is that it's giving the player a space to experiment and see

how the system works. The success of *Fallout 3* as an emergent narrative begins with the tutorial because it trains the player to 'read' the ergodic text by showing how to interact with the story and seeing consequences pan out in minor ways. All of these choices are ultimately inconsequential, when exiting the Vault the game will ask you if you want to undo any of your stats before the doors seal semi-permanently.

In terms of reflecting the player's character choices, the game is both hit and miss. Your father's ethnicity will reflect the choices you make at the start of the game, keeping the immersion intact. As far as player interaction, the world is defaulted to assuming you are a male despite the gender choice at the beginning. Blogger Twyst points out that all clothes are in their male setup unless a female player puts them on, in which case they change shape. Almost all of the characters address you in either gender neutral or as a man (calling you "brother" or "man"), there are numerous audio and visual lapses including the ending where you are shown as a male.¹⁰⁸ The Black Widow perk, which gives you bonus damage against men and new dialogue options, only unlocks one new choice in the actual game. You can persuade someone to have sex with you so that they don't detonate a bomb. Attempts to address this issue in the Bethesda forums were shut down by a mod.¹⁰⁹ Simon Ferrari points out on a post about his playthrough as a woman that any attempts to argue the designers were trying to create a gender-neutral experience fall short because of the numerous design lapses. He also notes that it does contain its fair share of empowered female characters such as Agatha, Leaf Mother Laurel, and Paladin Lyons.¹¹⁰ Women who are not defined by their relationship to a man include Moira in Megaton or Dr. Li in Rivet City. There are also plenty of prostitutes and women dependent on their husbands, but as Ferrari points out they are all characterized as being greedy and narcissistic. As broad and open as the game may be, being able to explore this world as a woman is a tacked-on feature.

The first overarching goal of *Fallout 3* supports exploration because the first half of the story is a mystery. Where has your Father gone? Wandering around the ruins outside the Vault might lead you to Megaton but you could just as easily stumble onto a Raider Den up on the interstate or one of the abandoned buildings. The larger narrative of the game is always present but exploration leads you to side-missions that can be optionally resolved. In Megaton you might help Moira write a Survival Guide, deal with the active atomic bomb, or solve the City's leaky pipes. Rewards of experience and gear make this tempting to do at a short range choice level. Discovering your father's location, which is initially Rivet City, means you have to travel there. Each step of the way presents randomly generated combat, which encourages the player's engagement with short-term choices and goals like ammo or health. And like in Megaton, side-quests and stories continue

to crop up as you make your way to the floating city. As game critic Mitch Krpata explains, “The wasteland is a massive canvas upon which are painted scenes of depth and import, most of which aren’t story-critical but instead serve to flesh out the mythology.”¹¹¹ There is still a long-goal present that the player is reminded about intermittently, but pursuing it leads to a huge range of mid-goals that the player can choose from.

In order to maintain mid-level narrative choice coherence, *Fallout 3* utilizes self-contained narrative spaces. To create appropriate feedback to the variety of choices a player may make, a developer has to program and write a response. This quickly becomes a massive undertaking as decision after decision piles up and complex reactions become necessary. To keep this manageable, a game will often have a self-contained drama or vignette that the player can interact with. In any one location I can kill off any or all NPC’s if I choose, or instead interact with them. If you’re playing a more cruel character, certain people will speak to you that normally would not. By the same token, being good attracts different conversations. Each of these points on the map are narratively unconnected, so that people in one community have little knowledge of what goes on in others.

The struggle for an emergent narrative is maintaining feedback for a player who is inherently unpredictable. It’s not really possible to have a meaningful reaction to every possible act the player can do. Narrative weight is still given to certain major decisions outside certain vignettes though. The game incorporates third parties that often act as news sources to give feedback. When the player listens to Galaxy News Radio in *Fallout 3* Three Dog will report your comings and goings. Certain NPCs who would reasonably know about current events outside the contained vignette will also make mention of your actions, such as when your father compliments you if you saved Megaton from the atomic bomb. Wearing certain pieces of clothing and being associated with certain groups will also adjust NPC behavior. If you talk the Ant Agonizer out of attacking the Mechanist in Canterbury Commons, then go see the Mechanist wearing her helmet, he’ll attack you.

The nature of the emergent narrative as a space that is freely explored by the player also requires a certain degree of information redundancy. When a player asks an NPC to explain where they are, they will usually get a name and brief explanation before being told to ask a specific NPC. That NPC is the information hub of the town, often directing the player to important clues about any Quests or areas to explore. Other NPC’s will often repeat this information. In the town of Canterbury Commons, for example, there are at least four people who will explain what’s going on in the town. Often they will have their own take on this information, but it’s usually not new after the first NPC. Since an emergent narrative does not control how the player enters the city or when, the game ensures the information will be conveyed

by having the details crop up multiple times. In order to maintain the integrity of an emergent narrative, facts must often be repeated or localized so that there is a great chance the player will discover important details if they are inclined.

The game's setting evokes all of these narrative design techniques by filling the game with tiny details to flesh out the sense of place. Duncan Fyfe at Hit Self Destruct writes¹¹², "You can't ignore all the bombed-out highways, the bridges to nowhere, the irradiated waters, the torn-apart schools, the abandoned cars, the skeletal remains embracing on the beds of shattered houses, the random and meaningless firefights and explosions. That's the world, and you have to deal with it even when it has no quest relevance."

The sense of desolation is also reflected in the narratives of each town. Raider camps and Super Mutants wander the landscape, always attacking you on sight. Towns that have imposing sheriffs like Megaton or Little Lamplight are able to survive. Ones whose leaders have become old or weak, like Arefu or Big Town, are depicted as on the verge of collapse. In order to get the player to appreciate the need for every city to be filled with a strong leader, the landscape is incessantly hostile. Michael Clarkson argues¹¹³ that the game is distinctly taking after Hobbes in its depiction of the primal state of nature. He writes, "In *Leviathan*, Hobbes asserts that men in the state of nature quarrel for three main reasons: resources, security, and renown... The central concern of the main quest is the scarcity of water. Because nearly all the water in the wasteland is irradiated or otherwise contaminated, agriculture is practically impossible." In almost every town there is a local drunk who has chosen to drink themselves away than deal with the world. Raider Dens often have the remains of their victims strewn about. Many of the places you explore will have small ergodic scenes, a skeleton on a chair with a gun lying next to it or a pile of bodies holed up in a cave filled with mole rats. The player draws their own conclusions about these scenes, the story telling itself by leaving only clues.

The first major area that the player will encounter after leaving Vault 101 is Megaton. Picking your way around the Springvale ruins will inevitably end with the player noticing a large nearby structure, although they are free to try their luck elsewhere. The need for supplies and weapons will probably do more to control the narrative progress than any forced linearity. The town is a mixed group of people, which often becomes the case in each town you encounter. A drug addict runs the local restaurant. A cheerful mechanic runs the general store. When the player asks for clues about his father's whereabouts, the bar owner Colin Moriarty charges them for the information. A ghoul working for Moriarty is an indentured servant, and the local church, the Children of the Atom, sits in the main square worshipping an atomic bomb. While the sheltered life of the Vault was a bit disturbing, the town is interesting because many of the citizens think of you as insane despite

their own crazy behavior. The player, as the only person who has been isolated from the cruelty of the Wasteland, is the only one with any kind of perspective on this situation.

The details that fill this town are all encountered in any order, but the picture they paint is always one of people struggling with whether or not they should just give into the cruelty around them. Moira keeps up a positive attitude and asks for your help writing a survival guide. Do so and you gain survival skills along with random encounters of people praising the book. Tell her it's hopeless and you win the dream crusher perk. One NPC in the town will offer to accompany you, but declines if your karma is not low enough. You can save yourself some money by just bullying Moriarty into telling you where your Dad went instead of paying him off. Megaton immediately presents the player with quests that represent the same choice outlined by Hobbes in *The Leviathan* and in *The Road*. Do you try to keep civilization together or just say screw it? Either path is viable.

One of the most discussed Quests in *Fallout 3* takes place in Megaton and it embodies the distinction between these two options. Do you want to detonate the nuke in Megaton or disarm it? Michael Clarkson comments on the context¹¹⁴, "The character encounters the sinister Mr. Burke, who wants you to detonate a bomb in the middle of a settlement. Burke's dialogue is laughable, the sort of thing a 12-year-old would say if he were trying to be a suave villain." The only motivation for setting off the bomb is because Burke's employer TenPenny once commented that Megaton was an eyesore. If the player tries to do the moral thing of turning Burke in it leads to a confrontation with the sheriff Lucas Simms. Burke will shoot him in the back before running away. Trying to do the most moral thing by appealing to authority and helping Megaton ends in disaster. Just deactivating the bomb will still have Burke sicking Talon mercenaries on you at random intervals. Setting off the nuclear bomb, however, has its own curious response. When you do so the player is given an incredible scene of the bomb going off while Burke praises its beauty and TenPenny has a huge laugh. The player who commits this senseless act, one for which there is almost no justification, is going to have their sentiments echoed by either Burke or TenPenny. Their karma drops by 1000 points and the player will be attacked by Megaton survivors at random, but this first major choice of the game sets the stage for all the rest. Do you plan to just blow things up and have a laugh or work to make the Wasteland a better place? The latter is not always going to be simple.

These kinds of inadvertent consequences for doing the right thing are seen again in the TenPenny Tower Quest. The leader of a ghoul group, Roy Phillips, wants to move into the tower but the residents refuse because of racism or ignorance. That's what Phillips claims anyways. Once you meet the residents you realize that like Megaton

they're a mixed group. One resident is Herbert Dashwood, a hero on the Galaxy News Radio programs and one of his best friends was a ghoul named Argyle. Four others, however, are repulsively snobby and expect the player to agree with their bigotry. TenPenny is more insane than offensive, while many of the other residents are simply misinformed. Help Phillips by unlocking the underground door to the Tower and the player will witness a disturbing ghoul rampage as the residents are slaughtered. Karma points deduct accordingly. What's difficult is that the player can also persuade the bigoted NPC's to leave and persuade the other Tower residents to accept the ghouls. The ghouls will move in peacefully, karma points go up. But if you come back a few days later, Phillips will have decided to kill off the residents anyway, gruesomely piling their bodies in the basement. As in Megaton, doing the right thing does not always work out well in the Wasteland.

These two quests highlight the way that *Fallout 3*'s karma system constantly complicates things instead of making them cut and dry. Quests will consistently confuse what is right and wrong with in-game rewards. Other times it will render the ludicrous prizes neutral or uninteresting while keeping the narrative engaging for the player. This is all compounded by the fact that you cannot ever check your karma (unless you're playing on a PC), you are only informed of it going up or down. For example, in "The Replicated Man" Quest the player is asked to track down a sentient android that has changed his face and memories. If the player chooses the karmically good path, they get one of the best weapons in the game. But if they opt to murder the men hunting him, they can trick out the bad karma reward and have the gain neutralized. The seemingly most positive path, showing false evidence that the Android is dead and leaving his false memories intact, has no reward for the player.

Another quest that confounds expectations is "Recovering Liberty", which features several layers of options. After either a long battle or taking a tricky shortcut, the player is confronted with a robot that believes it is Button Gwinnet from 1776. The robot will ask you to help it forge a copy of the Declaration of Independence to stop the British from stealing it. To help it you must recover an obscure bottle of ink at another distant location. The temptation to just shoot the robot and take the Declaration is large, the karmic cost is minimal and no one will care about one deranged robot. Other than the potential for more combat, there isn't really any other cost to doing this. The game's choices are always trying your patience as well as confounding you with their consequences.

The most conflicted choice in the game is found in "The Oasis" Quest. It features the reoccurring character Harold from the other *Fallout* games, whose viral mutation caused a tree to grow out of his head. In *Fallout 3*, the tree has finally taken root and begun to spread seeds to create a grove. When the player eventually

stumbles upon the place up north, they will encounter the only green vegetation in the entire game. Harold, tired of his predicament and bizarre followers, asks the player to kill him. The leader of the Treeminders asks the player to apply a sap to slow his growth while another asks you to help spread it. Walking around the village only makes the decision more complicated in terms of narrative. Few of the followers actually listen to Harold, interpreting his talk to be metaphorical and religious. Some wish to spread the grove to help the Wasteland while others fear attracting attention. None of the ludic rewards are particularly good, you get a permanent boost to stats so long as you don't talk the blatantly cruel path of lighting Harold on fire. Otherwise it's just some decent but not great armor or a minor improvement on radiation resistance. It is a truly perplexing choice because there is no right answer in terms of game design or narrative. The player is free to make up their own mind about what's right.

The main quest is littered with Quests that echo the main story. Presuming the player follows the trail of clues the game leaves behind to find their Father, they will inevitably encounter certain quests that are along the main routes to Rivet City. One of them touches on the very concern of abandonment that the player is experiencing: outside the town of Grayditch a small child approaches you. Believing his father to be dead, the child tries to get your help to see if anyone is still alive. In the sewers you find his father alive and well, but more concerned with his own research than his son. After helping him resolve a fire breathing ant problem, you're asked to find his son a new home instead of reuniting the pair. It's a clear echo of the awkward dilemma facing the player in their own quest. The player's father, whom during the tutorial raised them and taught them numerous skills, abandoned the player under similar circumstances. In Rivet City you encounter another problematic parent in the form of an alcoholic mother and her unruly son, something present in Vault 101 as well. Later, when the player is visiting Little Lamplight, they discover an entire city of children abandoned by their parents. The player's main quest is repeated in the minor quests they encounter along the way.

After rescuing your father from a virtual reality simulation, you discover that he is trying to repair a massive water filtration system located in the Jefferson Memorial. The necessity for such a device is apparent to the player throughout the game: all water and food is irradiated. After returning to the Jefferson Memorial your father begins repairing the project and asking for your assistance. The series of tasks given to the player here are almost banal in comparison to what they have done to make it this far. Disarming bombs, resolving conflicts, and fighting Super Mutants are all norms by this point. In these moments you feel like a child again, something that is inadvertently broken when the Enclave attack. After refusing to give over control of the water filter, your father causes a huge radiation leak to create a distraction so you and the other doctors can escape. With his death you are abruptly put in

command, protecting everyone, which is made even more difficult as one of your new party members reveals he has a heart condition. Suddenly, the player is now the authority figure.

Part of the problem with the Main Quest in these narrow moments is that even narratively they are somewhat contrived. Although having your Dad kill himself to take out a few Covenant officials is dramatic, the fact that he is dying to keep them from controlling a water filtration system makes the stakes seem low. It's not as if we're talking about a bomb or the Forced Evolution Virus (FEV) at this point, the Enclave simply declares that they want control of the facility. After several more quests involving the G.E.C.K. and dealing with the Enclave, the player is eventually put back into the same linear situation. Someone has to go into the irradiated control room and open up the water pump or the facility will break down. Rather than be able to send in one of your radiation resistant NPC's, you are forced to choose between going in yourself or sending in Paladin Lyons. You can also infect the water with the FEV virus if you want to kill off all mutants, but there's never much of an argument for why anyone would want to do this. Unlike all the complex choices and interactions of the entire game, in this final moment the player can only choose between good, bad, and really bad.

The DLC eventually fixed it so that the player simply goes into a coma and wakes up two weeks later, rendering the decision more palpable for people. Yet the final quest is not without some of its own eloquence. When you step into the irradiated chamber you have to put in the key code to unlock the pump controls. No one in the game has ever specifically told you what it is. In a long discussion at Gamers with Jobs Commenter Nyles explains¹¹⁵, "The way I see it, figuring out the code is the game asking you: do you care about this story? And if you do, you know the code. If you don't, you go get a walkthrough, or look for a way to solve the puzzle with the tools at your disposal, which leads to annoyance and frustration." Countless times your father has recited the sequence to you when quoting your Mother's favorite Bible verse and it's even in your own notes, which are typically only there to enhance the story. In some ways, despite the linear design in this last section, it is the only time the game really engages the player with how they personally have been playing the game. Did you really care about the characters in this story or were you just going through the motions for the good ending?

Subsequent playthroughs of *Fallout 3* invariably result in discovering the same quests in new ways or being able to unlock different details about the individual vignettes. Characters missed will be met and weapons lost will change playing styles dramatically. Random encounters and clues skipped amongst the rubble change how you play each time. Many places throughout the game don't even have quests driving your progress. The abandoned Vaults tell their own stories simply

through bodies, bits of old records, and shattered machinery. Blasted out factories that seem boring the first time visited will, on a return trip, lead you to noticing two skeletons clutching one another in a corner. None of these things are spelled out for the player. Often heartbreaking, occasionally funny, but never forgettable, the Capital Wasteland is a place that *Fallout 3* successfully takes the player to and allows them to explore however they like. Its mystery only deepens each time you enter it anew.

ENDNOTES

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“

*Whatever type of fun is
characterized by Uru, it
must be classified among the
hardest of hard funs.*

”

CELIA PEARCE

DISCOVERING URU: HARD FUN AND THE SUBLIME PLEASURES OF IMPOSSIBLE GAMEPLAY

Introduction

Since 2004, I have spent many hours studying players of the game *Uru*, a *Myst*-based MMOG that has opened and closed several times since its initial beta in 2003. I have written a Ph.D. thesis, numerous papers and book chapters, as well as an entire book on the members of the *Uru* diaspora, players of the game who dispersed to other games and virtual worlds after its initial closure (2009). The closest I have come to writing an article about the game itself was a 2008 paper for the Future of Digital Games (FROG) conference in Vienna entitled “Spatial Literacy: Reading (and Writing) Game Space,” in which I analyzed the way players “read” story and space in *Uru* (2008). Although it was ostensibly “about” the game, it still viewed *Uru* through the eyes of its players. One of the reasons for this is that when I began studying *Uru*, the game no longer existed. Thus my initial experience of *Uru* was entirely as a ghost, a chimera, a memory of the lost “homeland” (their term) from which the community I studied had been expelled. I learned of *Uru* through their documentation and stories, as well its player-created artifacts and instantiations in other virtual worlds. I listened to them tearfully recount the last moments of their game, many reporting a sense of post traumatic stress from the experience. If anyone ever tells you a video game can’t make you cry, all I can say is, they aren’t playing the right games or talking to the right players.

Uru: Ages Beyond Myst was born the same year as *World of Warcraft (WoW)*, the game-changer that brought massively multiplayer games (MMOGs) out of a niche market and into the mainstream. At its peak, *Uru* had less than one thousandth the players that *WoW* has at this writing. A massively multiplayer game based on the *Myst* franchise and the brainchild of one of its originators, *Uru* is the closest thing we have to a multiplayer variation on the adventure game, a genre that, in spite of its continued popularity, is considered to have been pronounced dead at the end of the last century.

Originally shut down by its publisher, Ubisoft, after a mere six-month beta test, Uru is and was, by any standards of commercial and critical success, an unmitigated flop. Reviews of the game are almost nonexistent, and few gamers I talk to, including the majority of game scholars, have never heard of the game except through my writings and presentations, and to-date, I am the only academic researcher I am aware of who has written about it. For all intents and purposes, Uru would be one more corpse in the MMOG graveyard, alongside Ultima Online, Asheron's Call, The Sims Online, and a plethora of other ill-fated online worlds, all of which failed with a higher player count and public awareness than Uru. Except for one little problem: Uru's players won't let it die. Including its initial release, Uru has been opened, closed and reopened in various forms (including a fan-run server system) four times to-date. At this writing, the game is running out of the offices of its developer, Cyan Worlds, which charges a small up-front fee for a "key" and takes donations to maintain its servers.²³ In between its various openings and closings, Uru-derived and inspired environments have generated across multiple virtual worlds, including There.com (which recently closed), Second Life, and OSGrid. Currently, an active fan-base of about 3,000 players in Europe, the U.S., Australia and South America, continues to explore Uru on Cyan's server, as well as inhabiting a variety of virtual worlds carrying the collective, self-identified moniker of "Uru Refugees."

The Enigma of Uru

This sustaining passion by a small group of (primarily Baby Boomer) gamers begs the question: Why? What is so great about this game that it has inspired an ardent contingent of fans to continue to revive and re-revive it in various forms over the past seven years, a trend that shows no sign of abating? Why has this game, which seemed to draw perhaps the smallest MMOG following in history, also managed to inspire one of the most passionate fan communities this side of Star Trek?

It was not until the game's third release, as *Myst Online: Uru Live*, under Gametap Originals, that I actually got the chance to play Uru all the way through. And it was not until its current release, which occurred while I was in the midst of working on this essay, that I feel I have even the most rudimentary understanding of the game itself to be able to write about it. But what I will say is this: I began as a fan of Uru fans, and I have now become one of them. In spite of its cult status, and its commercial failure, from the perspective of game design, especially in the multiplayer realm, as well as interactive storytelling, I believe that Uru is one of the best digital games ever created. Uru combines an evolution of the sophistication, and artistry and complex gameplay and storytelling techniques of *Myst*, whose 1993 appearance is still considered a watershed in the maturation of the medium, with a complex and novel social sensibility that has held rapt its small but ardent followers for nearly eight times the duration of its initial release.

While it is not particularly original to claim that a game is unique, Uru is, truly, like no other game before or since. It defies, indeed transcends genrefication, and one could argue, it may not even really be a game at all. It flies in the face of virtually every MMOG convention: There are no points, no levels, no combat, no character progression, no skills and stats, no armor, no inventory, and so forth. As far as storytelling conventions, it breaks every rule in the proverbial book. When I said earlier that Uru is “closest thing we have to a multiplayer adventure game,” I meant precisely that: not that it is a multiplayer adventure game, but that if you have to put it anywhere near a genre, that would be the one to which it lies closest. In some respects it is an anti-game, or at least an anti-MMOG, an approach that was very deliberate on the part of its lead designer Rand Miller, who sought to create a game that was the opposite of every other MMOG in every conceivable way.

It's been said that writing about music is like dancing about architecture, and I would say the same hold true for games. In fact, I would argue that the better a game is at being a game, the harder it is to write about. However, as game scholars, it falls upon us to tackle this conundrum, regardless of its inherent absurdity. Thus I will do my best to describe the indescribable by walking the reader through a few carefully chosen areas in the game that provide but a glimpse into this enigmatic masterpiece.

The Cleft: “Tutorial” as Heuristic Device

A number of clues to *Uru's* appeal can be found in its opening area, known as the Cleft. The Cleft sets the stage for the game and serves as both a literal and figurative liminal space between the “real world” and the imaginary Myst/Uru universe. The use of the word “Tutorial” in quotes here highlights the fact that it is barely a tutorial in the traditional sense, yet it provides players with all the vital information needed to play the game without resorting to didacticism. The Cleft follows the classic constraints of a heuristic device, a device that teaches about itself through its use. The word heuristic derives from the same Greek root as the word Eureka, an exclamation of discovery attributed to Archimedes. In fact, it might be said that discovery is Uru's dominant emotional paradigm and its principle pleasure, enhanced by the extreme difficulty of achieving each discovery.

Cyan is notorious for baffling players, for sharply avoiding the standard devices of both game design and game narrative. No game in the Myst series ever explicitly tells you its goal. Stories are told without the use of cut scenes or expository. Although there is much text, it is oblique, confusing and riddled with gaps, hidden and double meanings, metaphors and clues, and some of it is inscribed in the made-up language and numerical system of the D'ni. Unlike most “narrative” games, the gameplay is not strictly sequential, although there are conditionals, such as an area

that is unlocked only after a particular puzzle is solved. Characters seldom appear, and when they do, it is most often through forensic evidence. (Sound like the classic hallmarks of an alternate reality game, or ARG? There's a reason for that, which we'll get into in a moment.) Your identity is left somewhat ambiguous. Uru is the only game in the Myst series in which the player character, cast in the role of "explorer," is embodied in any way, through a customized avatar.

Uru begins in the present-day New Mexico desert with little explanation as to why you are there, and only a few oblique hints to help you on your way. I would classify this area, the Cleft, as the perfect opening for a game. It introduces all the major themes, ideas, and game mechanics in a way that is completely integrated into the story and the gameplay. Each element of the game is carefully introduced in its narrative context. From the location where you are initially spawned, one of the first things you see is patch of woven cloth, ironically posted on a "No Trespassing" sign. The fabric has a stylized symbol of a hand on it, suggesting that you touch it. If you click on this cloth, which any experienced Myst player will know to do, your avatar will press her hand on the cloth, and one portion of the symbol will illuminate with an accompanying sound effect. Eventually you will find that this "Journey Cloth" is the key artifact in the game. This is the first of seven Journey Cloths you will need to find to complete this and all other levels. Each subsequent Journey Cloth touched will illuminate showing your progress in collecting them until you have collected all seven. The hand itself, as well as its incremental illumination, is one of many techniques the game uses to convey instruction and information visually and through the gameplay itself.

Myst players are conditioned to explore any space they enter thoroughly, to literally and figuratively leave no stone unturned. As you explore the surface of the desert, which surrounds a small hill, you will discover some artifacts familiar to Myst players: a crashed rocket from the original Myst game, a skeleton of a creature seen in Riven, etc. You may also find more of these cloths. Throughout the level, you will also find pages of cream-colored paper with green sketches of natural objects on them. This is another key artifact, as you will discover later, to be collected throughout the game.

Designer Rand Miller told me in an interview that the Cleft was a new concept in Myst games, serving as a transition from the real world to the imaginary world of the D'ni (Pearce, 2010). This was an experiment, and was the first time a Myst game actually made reference to the real world. In fact, the launch of the original game was accompanied by a very early alternate reality game (ARG) that included



Figure 1: Touching a Journey Cloth in the desert.

physical artifacts in the actual New Mexico desert. One of the original members of the Uru design team went on to work at 42 Entertainment, the pioneering ARG company that created *The Beast* and *I Love Bees*, which employed many similar storytelling methods.

The intent of Uru's designers was that players would enter the world as themselves, another innovation for the series. Miller wanted to avoid the archetypal (and one might say clichéd) fantasy roleplaying paradigm of other MMORPGs. In fact, the name Uru is a deliberate double entendre meaning "you are you." Many Uru players took Cyan's lead and created avatars loosely based on their own appearances. My research indicated that having an embodied representation of themselves and each other in the world greatly enhanced players' sense of presence, which contributed to the strong bond that players formed with the game and their identities within it (Pearce, 2006; Pearce & Artemesia, 2009).

In the Cleft you encounter two of the three central characters in the game, and the only one who appears in flesh-and-blood form: This is Zandi, an unassuming middle-aged man sitting by a camper with a radio playing a Peter Gabriel song. Zandi explains "She's left a message for you in the Cleft....Listen to her, find the journey, and then, enter the tree." If you approach him a few more times during the level, he may throw you a few more hints.

The Cleft itself is a womblike cave dwelling nestled within a fissure on the desert surface. At the far end is a tree whose base is in the bottom of the Cleft, and which is the main entrance to the rest of the game. The tree is another allegorical symbol that pervades throughout Uru, as is water, which appears in pools at the bottom of the Cleft, as well as in a number of the Ages.

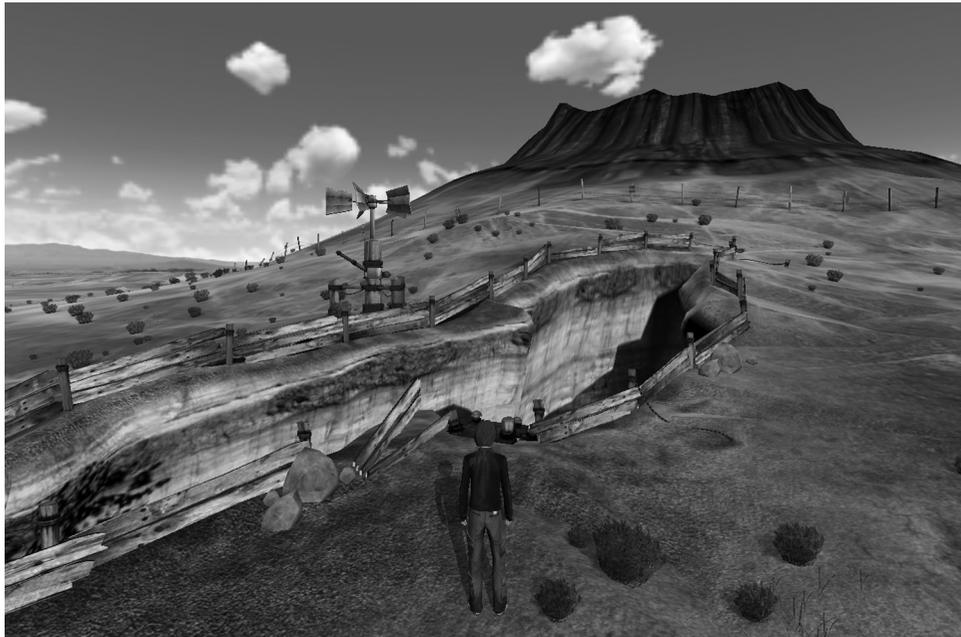


Figure 2: The Cleft in the desert, and the entryway to the lost city of D'ni Ae'gura.

Beside the Cleft is a broken windmill. Windmills are a common theme in Myst games, as are machines that need to be turned on. You climb down a ladder into the Cleft, a compact, though abandoned, cliff-dwelling style compound. This introduces the affordance of climbing. The Cleft has a number of planks and handmade bridges. If you cross one in particular, it breaks, dropping you safely into a puddle a few feet below. To ascend again, you will need to jump up to another level of rocks, where you will discover that the broken bridge can now serve as a ladder, thus adding the jumping affordance to climbing.



Figure 3: Descending into the Cleft: introduction of climbing.



Figure 4: A broken bridge serves as a ladder.

Eventually you find yourself in a room directly under the windmill (you may not figure that out right away), where you can unclamp something, which turns out to be its bottom stem. Once the brake is opened, you can return to the surface and push the windmill until it starts up, thereby powering all the contraptions in the Cleft below. This is a very common spatial conceit in the game: the placement of interrelated mechanical parts in separate spaces that turn out to be adjacent to each other. A new mechanic is introduced: powering up machines, environments and contraptions. Once the power is on, you will be able to do some other things in the space, including operate a sliding door that reveals another Journey Cloth, and activate a holographic projector.



Figure 5: Powering up the Cleft by activating the windmill.

This is a classic Myst-style puzzle. It also serves as an introduction to virtually every other mechanic you will use throughout the rest of the game—exploring, climbing, jumping, touching things, pushing buttons (usually active buttons are illuminated in blue), pulling levers, turning on machines, pattern-matching, finding Journey Cloths (the hand-inscribed cloth described above), picking up Relto Pages (the cream-colored paper with the green drawings), reading text, interpreting icons and symbols, including glyphs in unfamiliar languages throughout the game. The Cleft also introduces a pervasive game mechanic: the powering up, turning on and restarting of old machinery, which becomes progressively more complex in other levels of the game. It is literally and figuratively, a holograph, a microcosm of the entire gameplay within a small and relatively easy mini-level. All this is done without the use of cut scenes, expository or explicit instruction of any kind.

The Cleft uses a classic device of Myst games, one that I have previously termed the “interactive backstory” (1997; 2002). This technique uses forensic evidence of past events, allowing you to piece the clues together to construct a whole narrative in your mind. The Cleft is abandoned, but you can see that someone lived here once, possibly more than one person, that they lived somewhat of a makeshift existence, but that they had also made this transient dwelling to some extent their home. There is a letter from a father to his daughter. There is a space that looks like a laboratory, or perhaps an archaeological field station of some kind, with sketches and maps on the wall. By the door, a pattern showing four cryptic symbols can be seen etched into the wall. A nearby device has similar symbols laid in a similar configuration, but in a different order. When you touch the quadrants on the device you notice that the symbols change. If you match the symbols on the device to the symbol pattern by the door, you can start up a holograph of Yeesha, the protagonist of the game. This is the message to which Zandi referred earlier. She speaks, first in a foreign language, then in a kind of poetic way, about water, and journeys, and The Least...she walks to a cloth similar to the one you saw earlier and touches it, telling you there are seven “journeys” in each Age. At this point you can literally walk through her and touch the Journey Cloth.



Figure 6: The Yeesha hologram, activated by the puzzle on the left.

Yeesha is one of only three characters that “appear” physically in the game, and each only once: A living human (Zandi), the holograph of a human whose current condition is unknown (Yeesha), and the skeleton of a dead man (Kadish). Yet of these three, ironically, we know least about the living, human character, Zandi. What we know of the other two, Yeesha and Kadish, we know almost entirely from their environments. Yeesha “speaks” to us via her holograph, yet her “home” in the Cleft also gives us important information about her character. She also speaks to us retroactively throughout the game via the clues and tasks she has left for us.

Yeesha is both literally and figuratively a liminal figure. She occupies an intermediary space between the real world in the present, represented by the Cleft, and the D’ni world of Ages, represented by entering “the cavern” to which it leads. She is half human and half D’ni, with human characteristics, but apparently also possessing the arcane D’ni skill of “writing” Ages, housed in “linking books.” Even her status as a living person is unclear: while Zandi is clearly alive and Kadish is clearly dead, Yeesha may or may not be alive. As a hologram, she is a translucent ghost that lives in a partially embodied state, frozen in time between the past and the present. She becomes an emissary, an ambassador, a bridge though indirect and mysterious means, from the past to the present, from the “surface” to the cavern, from the magical world of the D’ni to the “real world” of the Cleft and its human explorers, as well as the factions in conflict within the cavern. She leaves you clues, evidence, journeys. Yet, she never tells you anything, never gives you instructions. Yeesha communicates to us through the game space itself. Even the small puddle at the bottom of the Cleft into which we were dumped by the broken bridge means something: it is a foreshadowing of her subsequent comment about “water returning to the Cleft.” Once we enter the cavern, we will find that water plays a crucial role in the D’ni culture and many of the Ages.

As anyone who has played World of Warcraft and others of its ilk know, this approach to storytelling and to game directions is completely anathema to how narrative in MMOGs typically functions. Lead designer Rand Miller was very clear that he wanted to avoid creating a game that was about leveling through a repetitive grind; he wanted people to have meaningful, interconnected experiences that were intellectually challenging and also had a palpable, persistent effect on the world (Pearce, 2010). In WoW, the standard procedure is for nonplayer characters, who are populous, to give you explicit directions as to what to do and where to do it. This prompted me to write a blogpost posing the question “Am I playing the game or is the game playing me?” (Pearce, 2007), in which I pondered the ramifications of doing everything a game tells one to do. In Uru, far from explicit instructions, you receive only oblique, poetic clues that you must navigate to find your way. Once you learn the pattern, the game’s basic elements are quite simple; yet the process of solving its puzzles is highly challenging. By and large, each Age contains the following:

- Seven Journey Cloths, each of which must be touched to complete the journey and pass through the Journey Door into the Bahro Cave.
- One or more Relto Pages, which add features to your Relto (the only visible measure of progression in the game).
- One or more puzzles that transform the space or open up areas of the space in different ways to provide access to the Journey Cloths.

A Journey Door, which will open into a Bahro Cave, once you have found the seven Journey Cloths in the Age. Each Bahro Cave contains artifacts that are added to your home space, called a Relto, to signify that you have completed the Age. Occasionally, a costume element you can collect, such as a hat, shirt, backpack or pair of shoes. These have no instrumental function.



Figure 7: Relto page.

Once you complete the Cleft, including finding all seven Journey Cloths both on the surface and within the cliff dwelling itself, you unlock the tree at the far end of the Cleft. Within the tree is a dark cave-like room where you retrieve a small bound book. This takes you to your personal space, the Relto. All players carry their Relto book on their belt, and can return to their Relto at any time by opening it up and placing their hand on its picture. This introduces the final mechanic of this level: linking books, which provide transport to the Ages and other spaces in the game.

Public and Private Space and Pervasive Gameplay

The Relto is an example of *Uru*'s unusual approach to thinking about private and public spaces. The Relto is the most private space in the game, and players can also belong to a "Bevin" (called a neighborhood or "hood" in earlier versions of the game). The term Bevin refers to both a group, and a shared space for that group. Players in *Uru* can belong to only one Bevin, for which they have a book on their Relto bookshelf, but they can visit any public Bevin or any private Bevin to which they are invited.

The most public space in the game is the abandoned city of D'ni Ae'gura. This is a very large environment that players can explore, with a wide range of space types, including a museum, a theater and other environments. There are also traffic cones and barriers distributed around the place to block access to areas that are not yet open. During the game's commercial runs, areas were opened periodically as part of the episodic structure.

Although the linking books for the first four Ages of the original game appear in the Relto, in the commercial, episodic version of the game, players could collect new linking books that mysteriously appeared in the city, or in a few cases, within the Bevin. Once you pick up a linking book, that book appears in your Relto bookshelf, and your personal instance of that Age is generated.

Private Space: The Relto and "Nonlinear Progression"

The Relto serves as the player's "home base." It is here that all the players' current activities are kept, in the form of linking books. It is also the only means in the game, in the absence of points, numerical levels, or gear, of measuring player progress, but it does so in a decidedly different fashion than any other MMOG.

The leveling paradigm is so pervasive in MMOGs that it is almost a foregone conclusion that players will level, in a relatively linear fashion, through some system of points, rewards, and an increase in power and capability. *Uru* takes a radical departure from this method to measure player progress in the game, one that I term "nonlinear progression." The idea of nonlinear progression is that players can complete tasks and accrue achievements in any order they like (within the limitations of the game's framework) and there is no set value with how many of these have been completed. While numerical values are the primary markers of levels (e.g., "level 70 elf mage" or whatnot), linear progression in MMOGs is often also visually represented by increasingly elaborate armor and weapons. More advanced players will sport high-level gear that signals achievement and status to other players.

Rather than using costuming, under the auspices of “gear” (Fron et al, 2007a), Uru uses the Relto as a spatial representation of character progression. Since progression is nonlinear, and there is no point-scoring mechanism, and no particular inventory to speak of, the Relto becomes the means to collect and display player accomplishments. A skilled Uru player can “read” another player’s Relto and quickly determine where the player has been and her level of completion in each Age.



Figure 8: The Relto, showing game progression, with Relto Page landscaping and one tall pillar, meaning one Age has been completed.

At the start of the game, the Relto, a floating island in the clouds, contains a small, adobe hut, and some minor landscaping. Within the hut are a wardrobe, which serves as the avatar customization interface, and two sets of bookshelves. Various elements and features are added to the island through gameplay as follows:

- Short pillars contain linking books to the first set of Ages appear in front of the hut; as the game progresses these become tall pillars based on Ages completed and Bahro Caves entered.
- A stone “donut” shaped floating sculpture to which wedges are added representing Bahro Caves successfully entered, and therefore, Ages completed.
- Linking books are the primary transportation mode of the game, taking players to the “worlds” or Ages created by the D’ni. Players start with a small number of linking books, including one that leads to the “Nexus,” a

hub from which they can enter their own and other players' Ages, and one that leads to the player's Bevin. As players visit Ages and find books, new linking books are added to the Relto bookshelf.

- Relto Pages, described earlier, are green sketches on cream-colored paper that depict natural elements: birds, trees, flowers, water. When collected, these transform the Relto by adding décor and landscape embellishments.

Players carry two objects with them at all times: A PDA device called a Ki (primarily to facilitate social interaction, but also for picture taking), and a Relto book. The Relto book is a small journal that players use to return to the Relto whenever they wish. The Relto is also the point of return in the event the player takes a fall of a high place, the closest thing in Uru to death. Uru avatars are immortal.

Ages & Instancing

Many MMOGs use the constructs of shards and instancing. Shards are different servers, each of which has a replica of the game, but whose culture may vary depending on its inhabitants. Instancing is a way to create a quest or scenario for a specific group of players. A group basically launches an instance so they can have a private experience with their own guild or a provisional group. Some games, such as Guild Wars, use this method liberally: most gameplay takes place in instances. This allows individuals or groups to make persistent changes to an instance that will be maintained from one visit to the next. Non-instance based quests will reset to their starting state after players have either completed or failed to complete the quest. They also have the additional problem that only one group can do them at a time, and players often "camp" a quest, depleting monsters and making it impossible for others to complete. The instance method allows an environment to change and a story to progress in a fashion that is unique to each player or group undergoing that quest.

Uru takes a completely different approach to instancing. By and large, each individual player has his or her own instance of each Age. Part of the reason for this is that, since Ages take a very long time and multiple visits to solve, each player needs to have his or her own game state saved from one session to the next. There are also group-based instances whose linking books are usually found within a Bevin. A player can invite others into her instance of an Age by either sending an invitation through the Nexus (essentially a library of linking books), or by inviting a player to his or her Relto and opening up the Age book for the player to enter. Thus, while the game is multiplayer, each player must solve her own individual Age instance to progress in the game. And while each Age (with a couple of exceptions) can be

solved as a single-player experience, because the Ages are so challenging, players generally assist each other in solving them. Helping new players is a big part of the Uru culture and more experienced players relish in guiding newer players in solving Ages. There is a very specific style of assistance that avoids spoilers, but encourages players to solve the puzzles on their own, even with the help of others. Players do not receive any type of tangible reward for helping others, but it is such an ingrained part of the culture that there is an entire Bevin, the Guild of Greeters, devoted to helping newcomers. They also have a web site with expertly crafted walkthroughs to help players through the Ages. The outcome is a highly repeatable game, with most Uru players having completed each Age multiple times, including redoing each personal instance of the Age in each new version of the game, as well as helping others complete their Ages.

Public Space and Group Space: The City and the Bevin

The most public space in the game is the City of D'ni Ae'gura, a neutral place open to all players. The City is where many of the linking books can be found, and while it leads to Ages, it is not, in and of itself, an Age.

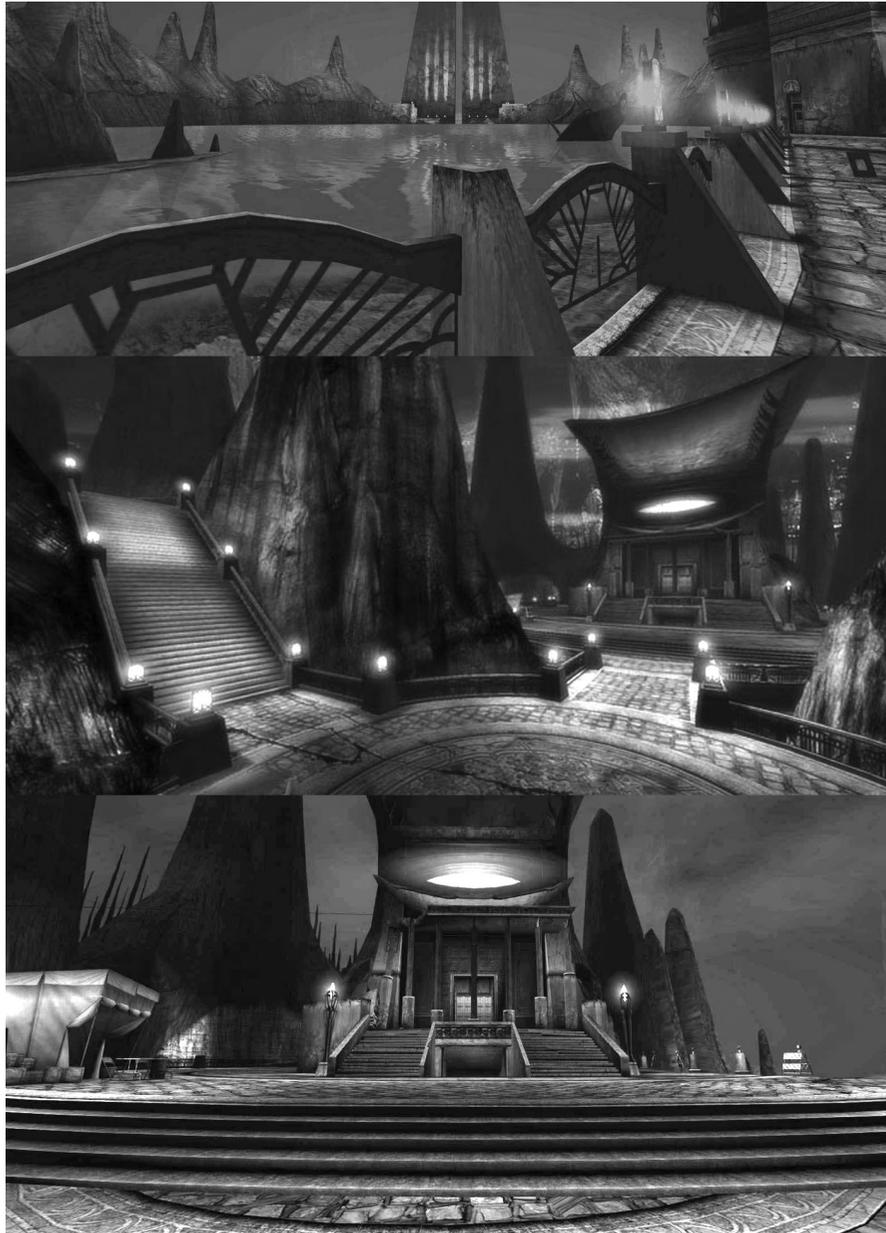


Figure 9: Three views of the City of D'ni Ae'gura.

The Bevin, known in earlier instantiations of the game as the Neighborhood, or colloquially, the “hood,” is a shared group space. Each player may “belong” to only one Bevin or hood, but hoods can be made public, open to all players, or private, open to hood members only. The hoods have some special features, such as a linking book room, and a lecture hall, as well as a central fountain, emphasizing the water theme. Readers familiar with my other writings on Uru will recognize the fountain as critical to emergent behavior among players, often serving as the first artifact created by Uru refugees in other games.



Figure 10: The Bevin (Hood), showing the central fountain.

Both the City and the Bevin are neutral zones that don't really contain gameplay per se, much as the city areas in traditional MMOGs serve as neutral, “no-combat” zones. However, there is a pervasive game element that exists throughout these areas called a “marker quest.” A marker quest is essentially an Easter egg hunt for orbs that are visible only to players who have the quest activated. When you are near a marker, you click on the flashing marker symbol on your Ki to collect it. Marker quests are extremely popular, and after completing the first series of quests, players can create their own marker quests for other players to complete. In addition to designed elements, players also invented their own emergent pervasive game activities within the public areas of Uru, such as the Saint Patrick's Day Parade, and the D'ni Games, an Olympic style competition with made-up sports such as cone balancing (balancing on an upended traffic cone) or tent rope climbing.



Figure 11: A marker quest in the City of D’ni Ae’gura. Upper left is interface to Ki.

Nonlinear Storytelling

Rather than the typical MMOG storyline of a series of isolated quest or quest chains, the *Uru* story is told through *non-linear exploration of spaces and solving of puzzles, each of which reveals some information about the world, its inhabitants and its history. In addition, the episodic version of the game included live actors (known by players as Cyanists) who took the role of contemporary human characters, the “D’ni Restoration Council (DRC)” who also served the narrative role of “opening up” new Ages and areas in the City for the players to explore.*

The *Uru* narrative foregoes classic tales of military grandeur, simple construct of good vs. evil, and aspirations of heroism that are prevalent in combat-based MMOGs. Instead, it favors nuanced moral conflicts. The *Myst* series has allegorical biblical references, and perhaps the strongest of these is Pride, the first of the Seven Deadly Sins, and the most egregious and destructive among the denizens of the D’ni world.

The core storyline and conflict of *Uru*, revealed over time as the puzzles and Ages are solved, revolves around the moral conundrum at which Yeesha is the center. The D’ni, whose own world was destroyed, occupied—colonized, as it turns out—this cavern in the New Mexico dessert. They built a vast and complex underground City, now deserted, with linking books to their complex puzzle-worlds, called Ages. The

D'ni have the ability to “write” these Ages, or worlds, into being with their magical linking books, but possession of this godlike craft has made them prideful and greedy. The implication is that it is this pride and greed which led to their downfall. The implicit goal of the game is for players to help the DRC restore the city, and potentially bring back the D'ni. However, as the plot unfurls, mostly through obtuse clues left by Yeesha, we come to realize that the D'ni had enslaved the prior occupants of this cave, the Bahro, or “Best People,” the people to whom Yeesha refers as “The Least.” Players in the live, episodic version of the game were eventually incited to take sides: one group are followers of Yeesha whose goal becomes the freeing of the Bahro, the other are followers of the DRC, who want to restore the city and hopefully, bring back the D'ni. A third group emergently opted out of this artificial conflict, preferring to steer clear of what it perceived as “drama” between players. These were generally referred to as OOC, or “out of character” players.

As originally envisioned, Uru was meant to be an episodic game, with new Ages released and new events occurring on a regular basis. This vision was realized in part, only to be aborted, in the Gametap instantiation of the game. Here the “Cyanists” brought the fictional DRC characters back into the game, and a number of new Ages planned for the original game were released. Interestingly, this episodic method was not so much about playing out a plot, but rather was used to maintain the Myst storytelling convention of revealing events that had happened in the past. These events were not always revealed in their proper sequence. The episodic technique also allowed for the development of a complex level of subterfuge. Strange events were occurring in the present-day D'ni Ae'gura and the DRC were an integral part of this aspect of the game.

Example Ages

The following are some examples of gameplay within Ages. I have picked three Ages which are indicative of the game's overall approach, and only specific aspects of each. The third Age I've described, Kadish Tolesa, is the most complex Age in Uru; here I touch on a few aspects of this Age because it provides some particular insights into Uru's game mechanics as well as its storytelling method.

Eder Gira/Eder Kemo: The Garden Ages

Eder Kemo and Eder Gira are two interconnected “Garden Ages” (Eder means Garden in D'ni) that together constitute a single puzzle. While all Ages in Uru include natural and manmade elements, these two do so in a very specific way. Eder Gira is a natural environment with human intervention, and Eder Kemo is a *manmade* natural environment, a garden. Machines Ages, in contrast, are primarily manmade,

sometimes with natural elements integrated into them. In most Uru Ages, many of the manmade elements are broken, need to be powered up, or need to be set into a particular sequence to function properly. The Gira/Kemo Age is unique in that it is two Ages in one, and requires the completion of both to complete the Age.

The first area of Gira is a somewhat treacherous desert with twisting paths between tall mountains and high falls. Below its cliffs and narrow paths are rivers of lava. Throughout the Age are steam vents coming through the rock, some of which can be opened or closed using a foot pedal, which places a large, hexagonal board over the vent. Eder Gira blends fire and water, which is a pervasive theme throughout this Age. The implication is that the lava is related to the steam, and also creates a sense danger, as there are a couple of high and treacherous places you need to get to in order to close vents and find Journey Cloths.

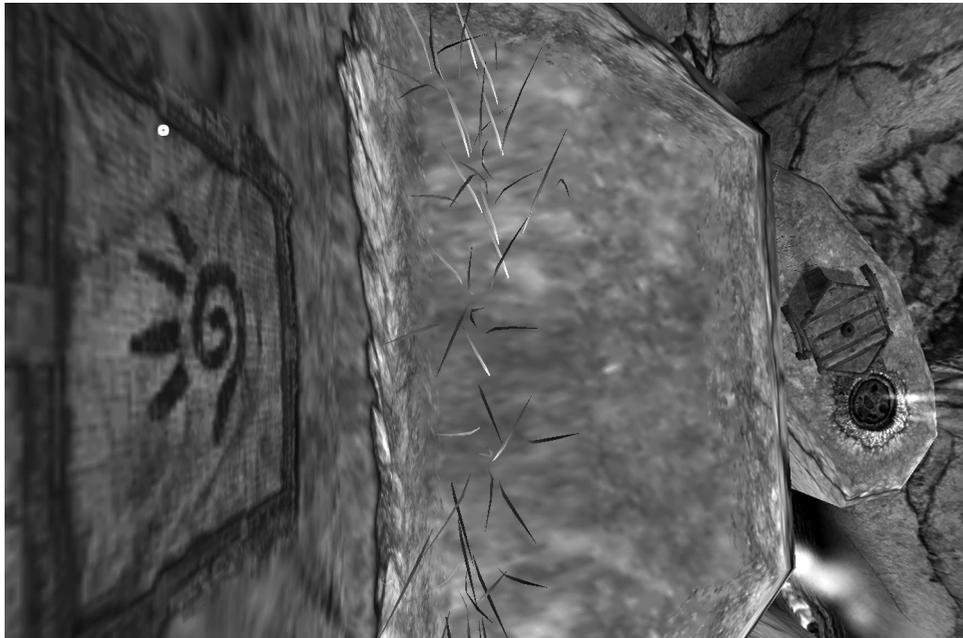


Figure 12: A view from above showing a journey cloth (left) and a steam vent on an island surrounded by lava, both of which require jumping to access.

In addition to collecting Journey Cloths, the primary puzzle in the first part of Gira involves closing a particular number of vents. Once this is done, players may ride a puff of steam coming out of an open vent over a rock and into the second area. While still in the desert, this second area is more benign, surrounded by rocks and cliffs, and including a waterfall and a small pool. When you explore this area you will eventually find that there are caves behind the waterfall, but they are dark. In some cases, you can turn a light on, but at some point you will need to find a light source to explore the caves.

Also in this area is a small gazebo with a linking book on it. This book leads to Eder Kemo, a lush garden surrounded by rock and cliffs, and including benches, paths and fountains, a manmade natural environment. It is here you will find the cave to the Bahro door whose entry will signal the completion of the Age. There are several Journey Cloths in this Age, and an experienced player will know to look thoroughly behind things, and to jump into high places to find them.



Figure 13: Journey Cloth hidden on the back of a rock formation in Eder Kemo.

This environment has several other interesting features. One is a swarm of fireflies that you can get to follow you by getting into their midst and walking down the path. If you run they will disperse, and they will also disperse if it starts raining, which it does intermittently and unpredictably. If you experiment enough, you will discover that the fireflies can serve as a mobile light source when you walk through some of the tunnels in the garden. You can also use those tunnels to protect them from the rain. If you are an astute Myst player you will eventually realize that you might be able to actually use the Eder Kemo fireflies to help light your way through the caves in Eder Gira. The fireflies will actually follow you through a linking book at the far end of the garden.



Figure 14: Transporting fireflies from Eder Kemo to Eder Gira via linking book.

This sequence in the puzzle is extremely arduous, time-consuming and requires a process of repeated trial-and-error to complete. It is nothing if not a lesson in patience and tenacity. Since we know fireflies don't like water, we have to do a number of things in the Gira waterfall area to get them across the pool to the caves. If we walk into water, we will lose them; if we run, we will lose them. Eventually, with repeated failures, we will discover that we can jump exactly one time but a second jump will cause them to disperse. Thus we have to find some lobster traps that we use to form bridges to cross the pool once we bring the fireflies back into Gira. We will also have to cross under the waterfall in one place, and jump over it in another, all while trying to avoid dispersing our fireflies. Once we get to the uppermost cave, we will find a Journey Cloth, and are rewarded for our efforts with a pith helmet that we can wear.

Perhaps in part due to the beauty of their environments, in addition to their gameplay function, Gira and Kemo are popular hangout areas for Uru players. One of my earliest experiences in the player-run server instantiation of Uru involved playing a game of hide-and-seek in Kemo, with players coming up with ingenious hiding places, some of which exploited glitches in the geometry of the environment. In Gira, players like to sit on a high stone arch in the waterfall area, from which they can see distant landscapes that I have heard players lament that they will never get to explore.



Figure 15: Using fireflies from Eder Kemo to illuminate the caves in Eder Gira.



Figure 16: Entering the Journey Door.

Part of what is so fascinating about the Gira/Kemo Age is that it involves transporting something between Ages via linking book. I have never done this Age without assistance of some kind, from either of seasoned Uru player or from the Guild of Greeters' online guide. I am still baffled as to how a player would be able to make the leap on their own that they could bring the fireflies from Kemo into Gira to light up the caves. The process of learning the fireflies' behavior is extremely complex and takes multiple failures to master. Yet dozens of players completed this Age and loved it. Part of the appeal of this Age for me is how poetic it is: fire and water, lava and steam, deserts and gardens, and fireflies which are not just an environmental effect but also a functional element of gameplay. I think we see this kind of poetic use of gameplay on occasion (Portal comes to mind), but to experience it in such a beautiful and sublime environment is rare.

Eder Delin

Eder Delin is a newer Garden Age that was introduced with the Gametap version of Uru. When the Age was released, a copy of the linking book for Delin appeared in each Bevin. It is one of the few puzzles in Uru that is a distinctly multiplayer Age that cannot be completed by a single person. It is also one of the few Uru puzzles that is timed. And it also has a slightly different mechanic than other Ages: rather than collecting the seven Journey Cloths one at a time, you have to activate them more or less all at once in a sequence.

Delin is a beautiful lush, colorful environment with trees, flowers, benches and fountains. The Journey Door is opened by a combination that is solved as follows: There are seven Journey Cloths hidden in various locations throughout the Age. These are different from other Journey Cloths in that rather than the traditional hand symbol, they show a spiral. When touched, a different section of the spiral will illuminate on each.

The Bahro Cave has a combination lock which, when activated, reveals a sequence that shows different parts of the same spiral symbol on the Journey Cloths being illuminated. In order to solve the puzzle, players must press each of the corresponding Journey Cloths when the matching piece of the spiral appears on the lock. Because the Journey Cloths are spread out throughout the Age, and are not even visible from the door, this Age typically requires multiple players to solve, ideally a total of eight, one to monitor the door, and seven others to touch the Journey Cloths in the right order.



Figure 17: Decoding the door in Eder Delin.

The multiplayer nature of this puzzle makes it particularly popular with Uru players, and because of the individual instancing scheme described above, every player has to get eight of their friends to come and help them solve their personal instance of the Age. Even if all players have solved the Age, players will frequently go to Delin again to repeat the procedure. It's actually one of the simplest puzzles in *Uru*, but its co-op nature makes it one of the most fun. It also takes a relatively short period of time to complete relative to other Ages.

Kadish Tolesa

I'm only going to speak briefly about this Age because it is one of the most complex to describe, and is notoriously the most difficult to complete.²⁴ However, Kadish is an important Age in terms of story and theme, so I wanted touch on some of its characteristics. Kadish Tolesa provides perhaps the best example in *Uru* of the use of both space and gameplay as characterization.

The key to solving its puzzles is understanding the personality of its creator, the brilliant, yet prideful and greedy, Guildmaster Kadish. Kadish is a fallen sage who was expelled from his Guild. One of his notable characteristics is his "careful omission of information in order to seem more powerful to others" (Guild of Greeters). Because of this, all the puzzles in this Age are solved by looking for what is missing or absent.

The Kadish Age also has an associated space in the city of D'ni Ae'gura, the Kadish Gallery, which you can access via a linking book within the Age, as well as through the City itself. The Kadish Gallery contains clues to the solutions of all the puzzles in the Age. While spaces that are shared between Ages and the city are not unusual, a space that contains clues for all puzzles in an Age is a rare feature. The clues are of course, complex and oblique. It is common for players to have a pen and paper on-hand in order to draw or write down visual content they encounter along the way.



Figure 18: The Kadish Gallery contains clues to all the puzzles in Kadish Tolesa.

Kadish puzzles often involve transforming the space. In one example, known as the Moon Room, players must follow a path on the floor that is obscured in shadow. If correctly followed to a center spot in the room, areas of the floor drop away to form a staircase to a secret doorway. In the Pillar Room, pillars are lowered and raised by the correct combination of lever pulls. Once you configure the pillars correctly, you can climb up a series of ladders embedded in their sides to get to an inaccessible door high on a back wall.

The final puzzle in Kadish is the combination lock to Kadish's vault, a chamber suspended by cables in a large cavern. Although clues to this lock are found in the gallery, as it is based on the Kadish principle of finding what is missing, it is a fairly complex combination to solve. Once you have entered the vault, you discover the skeleton of Kadish himself, alongside a note in D'ni and annotated in English. In spite of his brilliance, Kadish, it seems, was done in by his own pride and greed.

Kadish also has a twist that occurs in a number of other ages, and that is a time travel mechanism. A linking book within the vault will take you to a different version of the vault at a different time. This alternate vault is virtually empty, with the exception of a few artifacts (one of which you can collect) and a Relto Page which adds a feature to your Relto.

Returning to the original vault, once you exit, you will see the Journey Door entrance to the Bahro Cave; however, you will have to traverse one of the narrow beams that holds up the vault suspended in the cave to get there. If you've picked up all the Journey Cloths, then you will be able to open the door and collect the pillar and the wedge for your Relto.

Kadish is, as mentioned earlier, only one of three characters that appear, physically, in the game, in this case, as a skeleton. He represents one of the Myst themes of the destructive force of pride and grandiosity. That he meets his end locked in a vault with his own riches is a fitting end, as well as a stark statement about the futility of hubris and greed. In spite of Kadish's godlike attributes as one of the great Age-writers of his culture, his own mortality is further punctuated by his petty materialism in this very stark scene in which the greatest symbol of his wealth becomes his tomb.

“The Ending Is Not Yet Written”

In spite of its nonlinearity, Uru does have an ending, and a rather dramatic one at that. It is an ending that is both unexpected and inevitable, but as promised, I will not conclude this article with a spoiler. The quote referenced above, “The ending is not yet written,” refers to an oft-invoked quote of Yeesha's that Uru players return to in an ironic reference to their own fate. With each subsequent closure, devoted Uru fans have brought forth this quote, and low and beyond, Uru has risen again from the ashes. Uru players are nothing if not persistent.

Hard Fun and the Sublime Pleasures of Impossible Gameplay

As mentioned earlier, central to Uru's gameplay is the pleasure of discovery, the Eureka moment when a difficult puzzle has been conquered and the solution found. It also epitomizes Alan Kay's concept of “hard fun.” Kay coined this term to describe activities, such as playing the violin, that are at once challenging and enjoyable. I would also argue that the best examples of hard fun are, like playing the violin, sublime. While most games can be characterized as “hard fun,” I would argue that Uru is an example of what might be characterized as “sublime fun.”

The concept of “fun” is itself increasingly contested, with the game industry and its press tending to use a fairly generic, male-centric perception of the term (Fron et al, 2007b). This results in novel games such as *Uru*, and even popular but unconventional games such as *The Sims*, getting panned in the mainstream game press. But there are many types of fun tied to the play preferences of each individual player, and even a variety of preferences and moods within that player. The stereotypical marketing construct of the “hardcore player” overlooks the fact that players who enjoy *Halo*, or *Grand Theft Auto*, can also enjoy *Farmville* and *Diner Dash*. This question calls for a deeper analysis of the varieties of fun. For as many varieties of fun as exist, there may also be a variety of methods for going about such an analysis, from a “player-centric approach” that focuses on individual players, to more of a literary theory or film studies style textual analysis. Any of these methods is valid, but they are long overdue.

Whatever type of fun is characterized by *Uru*, it must be classified among the hardest of hard funs. The so-called “Mensa-level” puzzles of the *Myst* games, and especially those featured in *Uru*, are notorious for being diabolically challenging, as well as imaginative and creative. Yet it is this very difficulty, combined with the social dimension of the game, that has long held *Uru* fans in its rapture. The sublime challenge, combined with the opportunity for collaboration, create fertile ground for the formation of what Bernie DeKoven calls a “play community” (DeKoven 1978). The play community is a group of people whose decision to play together transcends the game they are playing, and whose mutual respect allows each to perform at his or her optimal level and maintain the optimal experience, regardless of skill or experience. Building on DeKoven’s concept of “co-liberation,” which in turn builds on Csíkszentmihályi’s notion of “flow” (1990), I define this as “intersubjective flow.” This is characterized by a form of flow that is enhanced and maintained through group interaction, whether competitive or cooperative, and can be seen in a range of practices, from sports to music, to video games.

Uru achieves the sublime pleasures of impossible gameplay by merging this transcendent experience of intersubjective flow, hard fun of the “violin” variety, and a compelling and beautiful story world with a rich mythos. The result is a sublime experience comparable to any great work of art, yet totally unique to the video game medium.

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This concept of bending stories is realized through other gameplay mechanics as well.

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BEN MILLER

IMMERSIVE GAME DESIGN: INDIGO PROPHECY

Whenever I speak with various friends or coworkers about playing *Indigo Prophecy*, they inevitably bring up one or more of the following points: the gripping introductory scene, how the great story turned into a complete train wreck during the second half of the game, or the interactive sex scene that was removed from the United States and Canadian releases. While all of these points are valid and understandable, I think that the often-discussed narrative content is not the most remarkable facet of the game. The innovative game systems and mechanics that succeed in enhancing the immersive nature of the experience strike me as the most noteworthy and interesting aspects of the game. I feel that these systems are elegant and bold examples of great game design that are as inspiring as they are effective.

Through a detailed analysis of these systems I hope to bring the concept of immersive game design to the forefront of other developer's minds and promote the discussion of systems specifically built to heighten player immersion. Moreover, by identifying the central components of these systems I hope to give fellow developer's additional "tools" they can use to enhance the immersive nature of their own games. Finally, I want to inspire others, as I have been inspired, to push boundaries and create new immersive systems of their own.

Background Information

Although *Indigo Prophecy* closely resembles an adventure game, David Cage, the director, lead designer, and writer for the game calls it an interactive drama or interactive story due to how it uniquely presents an interactive narrative. Despite the inherent difficulty marketing this unique game, Atari published the game internationally in September 2005 for the Playstation 2 (PS2), Xbox, and PC in six different languages. It was released as *Fahrenheit* throughout the world but the name was changed to *Indigo Prophecy* in the United States and Canada to avoid confusion with the film *Fahrenheit 9/11*. It has sold over 800,000 copies worldwide and all versions of the game have a favorable Metacritic score between 83 and 85. Although the game was simultaneously developed for all three platforms, the

PS2 game was identified as the lead version and the primary control scheme was designed for dual analog stick controllers. I will reference this control scheme throughout the analysis despite playing the Xbox version of the game on an Xbox 360 since both versions utilize the same control scheme.

The game is broken into 44 scenes and the player controls between one and five characters per scene. The player controls three main characters throughout the majority of the game and two minor characters at specific points in the narrative. After the player finishes a scene with one character, they are brought back to the character select screen to choose another character. When all character stories for a scene are completed, a new scene begins.

The game is set in modern-day New York City and even though the overall tone and content of the story is tied to the real-world, it contains supernatural elements and futuristic concepts. The main character in the game, Lucas Kane, is a 31-year-old IT Manager thrust into a fight between powerful secret societies. They are fighting for control over a girl who is connected to an ancient Mayan prophecy concerning a secret that could save or destroy the world. The other two main characters, Carla Valenti and Tyler Miles, work for the New York Police Department and are investigating a series of brutal murders that were recently committed in the city. The overall feel of the game's narrative is very cinematic and it immediately plunges the player into an extreme situation with one of the best interactive, introductory experiences ever created.

The game begins as Kane discusses, via voiceover, how his life is about to change and become drastically worse. The camera cinematically travels through NYC and eventually zooms into the restroom of a restaurant where the player witnesses Kane stab a person to death while under the control of an external, supernatural force. After witnessing this murder, which is also the most violent and bloody scene in the entire game, the player takes control of a bewildered Kane and attempts to clean the murder scene and exit the restroom before a police officer catches him near the body. Although the content of this introductory scene is important, I am interested in analyzing how it is delivered to the player, as the holistic manner in which *Indigo Prophecy* is designed stands as a shining example of how a user interface and visual style can meaningfully support and enhance gameplay.

Consider the Frame

Characteristically, most videogames artistically and interactively differentiate between navigating within the “frame” of a game, (menu system, tutorials, unlocking bonus content, etc.) and the game-world. DVDs usually employ a similar differentiation between the frame (menu system) and watching the movie itself. Although this

differentiation compartmentalizes all of the content contained in a videogame for easy navigation, it breaks the immersive nature of the experience. The complete separation between frame and primary content is a fascinating design problem that few games have attempted to address. I believe that *Indigo Prophecy* is one of the few games to successfully connect its frame with its game-world and the tutorial that is hosted by an in-game, 3D representation of Cage showcases this connection quite well.

After accessing the tutorial, the player takes control of a generic mannequin dressed in a mo-cap suit on the virtual equivalent of a movie set. Cage starts the tutorial by telling the player that the game was designed to deliver a cinematic, interactive experience akin to an interactive movie and after he relates additional background information about the game's purpose, he teaches the player how to play the game. This scene feels like a behind-the-scenes segment for a movie and it helps flavor the game as a unique experience despite the forwardness of the dialogue. Although it makes the player deliberately aware they are playing a game and essentially breaks the videogame's equivalent of the fourth wall, it effectively imbues the game with a meta-narrative that enhances the entire experience. Likewise, the usually rote task of navigating menus to access entertainment content is actually transformed into a meaningful experience since the rest of the game's user interface also supports this meta-narrative.

Navigating menus in order to watch a movie or play a game is usually a purely utilitarian task where the user is consciously aware that they are completing tasks to access entertainment content. Once they access the content, they will hopefully become fully engaged with the game or movie. *Indigo Prophecy* makes the utilitarian task of navigating menus and learning how to play the game meaningful by encapsulating it within the relatable, established framework of watching a movie. It adds layers of meaning to the experience that makes it, as a consequence, feel more robust and engaging.

For instance, when the game is paused, the buttons to unpaue or quit are labeled "Play" and "Stop" and they are paired with the corresponding images, a triangle and square, which are commonly associated with those cinematic actions. Additionally, the chapters of the game are called scenes and the background of the main menu continuously transitions between television sets that play video clips taken from the game. Moreover, the entire game is presented in letterbox format and it makes liberal use of cinematic camera angles and tracking shots.

All of these elements create a wonderful and meaningful frame for the videogame. This frame supports and enhances the player experience much like a frame on a traditional painting adds to the aesthetics and supports the meaning of the piece.

Although, the frame for a piece of artwork is often aesthetically differentiated from the art itself, *Indigo Prophecy* takes it one step further by interactively differentiating between the two. The primary buttons on the controller are used to make selections in the menu screens whereas, in the game, the player makes selections by moving the right analog stick in a variety of ways that closely represent the character's in-game actions. This connection between player action and in-game character action is a powerful mechanic for increasing player immersion and it, much like the game's thematic framing, pervades the entire experience.

Meaningful Motion

In-game character actions are usually controlled with the dual analog sticks and, rarely, the left and right triggers. Players control the movement of characters with the left analog stick and use the right analog stick to complete certain actions. The majority of these actions simulate real-world activities like opening doors, drinking from a glass, climbing, etc. and players are free to engage in a wide variety of these actions throughout the game. While it is noteworthy that characters can complete a large number of actions in the game and many of these actions have little influence over the progression of the story, a character's virtual actions and the physical similarities to the player's real-world actions fundamentally make the game a more immersive experience.

Through the use of simple gestures like quarter turns or moving to the left or the right with the analog stick, the game creates a deeper connection between the character's in-game actions and the real-world actions of the player playing the game. Although the player's motions are still abstractions of the in-game actions they invoke, the deeper connection formed between them is surprisingly powerful. For example, opening a door requires a movement forward while closing a door requires a movement backwards. Climbing up a chain link fence requires the alternating motions of a quarter turn left and up to simulate a left hand climbing-motion and a quarter turn right and up to simulate the right hand climbing-motion. In order to clean a floor with a mop, the player must repeatedly move the analog stick from the right to the left. Moreover, if a player fails, or only completes part of the action, the character will actually go through part of the corresponding animation and then smoothly return to a neutral position. This granular, immediate connection between player action and character action breathes additional life into the game and, in turn, supports the connection between the player and the in-game characters and their stories. Moreover, the on-screen visualization of these actions represent a relatively simple but extremely effective feedback system that further supports the connection between player action and character action while ensuring that players always know what actions they can perform.

All potential game actions are represented in a clear, consistent manner within the top black border of the screen. The movement, the name of the action, and an icon representing the action are displayed whenever the player is located near an actionable object or location. The continuous movement of a soft pulsing dot located within a circle mimics the motion the player needs to make whereas the player controls a red dot that appears within the circle whenever they move the right analog stick. The player is simply tasked with following the motion of the soft pulsing dot at a reasonable speed. It is a clean, easily understood input system that makes this central mechanic amazingly straightforward. These action-prompts appear during segments of gameplay where the player is given a certain amount of time to find clues, solve puzzles, or just “live” in the game-world. However, they are also used during conversations with other characters in a more constrained but equally believable manner.

When players are conversing with other characters in the game and it is their turn to respond or ask a question, they are given between two and four one-word topics to select using the mechanic I described above. However, the players have a limited amount of time to make their selection and the topic selected can dramatically change the conversation.

Giving the player a limited amount of time to select a response further reinforces the believability of the virtual world and its strong connection to reality. This narrative mechanic makes the flow of dialogue feel natural and does not allow players to revisit conversations or pause before replying for an indefinite amount of time like many dialogue-heavy RPGs. This innovative conversation system not only makes the story move at a quicker pace but it also gives the player less time to doubt their decisions. Subsequently, they are more engrossed in the story and less likely to try and reload the previous save just to see what would happen if they chose a different topic. It is a great system that I wish more dialogue-heavy games would employ and, thankfully, the timed elements of this system are also utilized in the game’s interactive action sequences.

Interactive Action

Indigo Prophecy contains many different action-oriented scenes that resemble the high-intensity portions of an action movie. Cage has developed a number of different game systems that give the player the ability to control characters as they perform a wide variety of moves and animations in quick succession. Each of these systems resembles some type of new or polished Quick Time Event (QTE). In a traditional QTE, the player is prompted to interact with the controller in some manner within a specific frame of time. For instance, a player might be prompted to press the down button in less than four seconds by a flashing down arrow that suddenly appears on

the screen. Traditionally, if they fail, the player's character dies and they are forced to restart the game at an earlier point in time. If they succeed, they will continue to progress through the game. *Indigo Prophecy's* QTEs feel more meaningful since they are specifically designed to maintain immersion and keep the player focused on important game content.

For example, during action sequences where the character is struggling against a strong physical force like a heavy wind or lifting weights the player must tap the left and right triggers in an alternating fashion as quickly as possible to reach a certain intensity threshold by the end of a specified time interval. In other sections, the player has to balance some aspect of the game like regulating the character's respiratory rate as they fight against claustrophobic thoughts or maintaining a character's balance as they walk on a thin, suspended beam. In these sequences, the player must tap the left and right triggers to keep a vertical line close to the center of a meter as it constantly moves back and forth between the extreme ends of this meter. In both cases, these examples are challenges characters face in the game and their corresponding virtual actions feel well represented by the different forms of player input each requires. In fact, like the characters' physical and emotional state, I felt physically tired and a little scared while trying to accomplish these goals. I believe this is an amazing achievement since the player's actions with a controller represented the actions of the character they were controlling and their physical state in the real-world mirrored the character's physical state in the game-world.

While the second type of QTE takes place over a much larger portion of time, it manages to effectively present narrative conflict in a unique format. In these sequences, the player is caught in a situation where they must accomplish some goal before an incoming, inexorable force stops game progression by killing the player, throwing them in jail, or initiating a similar game-ending event. For instance, a couple hours into the game, the player must help Kane find information relating to the supernatural events that surround his life and escape before police officers arrive at the house. The player is given the freedom to complete a wide range of activities before two police officers walk into the house where he is located and eventually take him to jail. If the player does not find the information and flee the scene before the police officers arrive, the story will end.

When the police officers receive a call from the dispatcher to investigate the house where Kane is located, the game transitions from focusing solely on Kane's actions to a split-screen presentation that depicts both Kane's actions and the police officers' actions as they drive through the city and start investigating the house. At the top of the screen, a fuse starts to burn down, notifying the player when the officers will enter the house. This is a great example of game design and storytelling working together in a supportive manner. The player is put in a position where he needs to

get something done in a short amount of time but unlike most games that simply tell the player to complete a task because “something” will happen off-screen or time will run out, *Indigo Prophecy* simultaneously shows the player’s actions and the actions that this game-ending force is taking in real-time. It raises the player’s level of engagement within the game-world through escalating tension and it immerses the player through cinematic storytelling and the illusion of a cohesive virtual world that is bigger than the player’s localized interactive game-spaces.

Indigo Prophecy’s most complicated action sequences are controlled via a more traditional QTE system that replaces timed button presses with the timed movements of both analog sticks. Overlaid on the action in the center of the screen are two half-transparent wheels broken into four colored segments that correspond with the four cardinal directions (these wheels resemble two small *Simon Says* game boards). Different sections of the two wheels light up in a specific order during action set pieces like when Tyler is playing basketball against a coworker or Kane is fighting the main antagonist of the game. The player is tasked with quickly moving the analog sticks in the correct direction and order indicated by the lit sections of the two wheels. This system allows the player to control a wide variety of rapid movements with one central input system that loosely corresponds to the action on the screen.

Although there is a connection with the direction a player moves the analogs sticks and the corresponding on-screen action, this connection is less precise than other modes of interaction. This system is able to better represent the undulating flow of these action sequences through modulating the speed and complexity of the movements the player is asked to complete. The positioning and integration of the wheels with the action on the screen helps the player both follow the action while simultaneously understand the inputs they need to make. While the system is not perfect, it employs QTEs that are more relevant, useful, and less frustrating for both casual and hardcore gamers than traditional QTEs used in different videogames. This interactive system is also used during some important conversations that highlight *Indigo Prophecy*’s unique narrative structure.

Bending Stories

Rather than use traditional, linear or branching storytelling methodologies in *Indigo Prophecy*, Cage invented a branching storytelling system that allows the player to “bend the story” through acquiring or failing to acquire optional information concerning the game’s narrative. The potential for players to obtain this optional information effectively personalizes their experience while maintaining the central pacing and story structure of the core narrative. This storytelling technique is used during conversation segments that prompt the player to engage in a QTE, as

described above, using both analog sticks. Success or failure during these sections will not stop the progression of the game or necessarily end the character's story. If the player misses a few prompts, instead of showing the player a Game Over screen or taking a "life", the conversation simply changes direction against the character's wishes or ends abruptly. If the player succeeds, they are rewarded with additional information about a character or an event, often through internal monologue. I think this is an effective mechanic as it allows the player to supplement the story with additional insights and information through successful gameplay without hindering their progression if they fail. It is also a noteworthy technique as it emphasizes the importance of the story by utilizing it as a reward for skilled play. This mechanic makes the story a more prominent and valuable element of the game and, thus, it is better positioned to engage and immerse the player.

This concept of bending stories is realized through other gameplay mechanics as well. Players uncover different layers of detail related to certain aspects of the story based upon the dialogue choices they make during normal conversations. Moreover, there are often a number of contextual actions the player can take in various environments that are non-essential to story progression. These choices and environmental interactions have even greater significance as they raise or lower the character's Mental Health: an immersive mechanic that is a meaningful evolution of the traditional health bar found in many videogames.

Health Bar Evolved

Throughout the game, Kane copes with a variety of issues that cause him to question his sanity. His Mental Health is represented by a meter that is displayed in one of the lower corners of the screen whenever the player takes an action that changes Kane's mood or mental state. If Kane's Mental Health is completely depleted, the story ends as he commits suicide or turns himself into the police. This Mental Health meter is a meaningful evolution of the classic health bar system as it represents a realistic resource that supports the story and themes of the game.

The traditional health bar abstractly represents how much physical damage a character can take before they die. The implementation of this general concept has taken many forms in different games. However, in a cerebral, realistic game like *Indigo Prophecy* where fighting or physical violence is not a consistent focus, using this type of health bar makes little sense. By redesigning the health bar to focus on the mental state of the characters, the game implicitly supports both the believability of the game-world and the connection the player feels in regards to the character's state of mind.

Throughout the entire game, the player is controlling characters that live in a realistic representation of New York City that includes some supernatural and fantastic elements. The script, animation, and voice acting help create realistic

representations of people as they act surprised and scared at the appropriate moments when confronting strange creatures and situations. Mental Health supports these game elements by giving the player an ever-present, clear, empirical gauge of the character's mental state. As this gauge moves up and down in accordance with certain character actions, these actions gain increased significance because they are believably tied to the changes in a character's Mental Health. For example, washing a character's face or playing guitar will calm them down and increase their Mental Health while getting in an argument with an ex-girlfriend or watching a news broadcast about a murder a character committed will lower their Mental Health. This believable connection between action, Mental Health, and a character's reaction creates a game-world filled with engaging realistic characters.

In fact, Cage did not originally plan to implement this mechanic into the game. However, after playtesting the game without it, he noticed that the players didn't care about the characters as much as he anticipated. This was due to the fact that many of the actions the characters can take are relatively mundane tasks like drinking a glass of water, reading a book, or going to sleep and, due to their normalcy, the positive or negative effects they had on the characters' mental state was not completely clear.

This mechanic is necessary to the experience because it helps players become more invested in the lives of the characters and it makes them feel more realistic. Moreover, Mental Health is a fantastic game design mechanic that takes a traditionally abstract mechanic and fits it into the context of the game in a meaningful manner.

An Imperfect Prophecy

Indigo Prophecy is far from perfect and while I will not dwell on all of the problems in the game, I think that it is worthwhile to mention, within the scope and focus of this paper, some of the game's biggest flaws.

The story, as previously mentioned, is truly gripping and intriguing until the second half of the game which begins after Kane is killed and comes back to life. I think that this situation is too strange for most people to believe and it marks a point in the narrative where too many outlandish concepts and characters are introduced and never sufficiently integrated into the story. Some bizarre highlights include when a new antagonist is introduced as some type of sentient robot composed of artificial intelligences from "the Net", Kane and Carla end up falling in love and having sex even though Kane is still technically dead, and a group of bums is revealed to be the "Invisibles" who monitor all of the other societies who secretly rule the world.

It seems like Quantic Dream spent most of their time developing the first half of the game and had to rush through the final half, cutting a fair amount of content to meet development deadlines. Although this belief is pure speculation, Cage has said in interviews that the Mental Health system was integrated late into the game's development cycle and I believe this negatively influenced its effectiveness in the game.

Part of the problem with the Mental Health system is that it is only effective when the player is controlling Kane. The Mental Health meter is present when the player is controlling the other two main characters but it never truly affects game progression. This limited the different types of gameplay supported by the other characters and I believe this made those characters less engaging and less fun to play.

The action-oriented QTE system, while effective, was not perfect and sometimes I found it difficult to watch the action on the screen while I was trying to concentrate on inputting the correct commands at the right times. Moreover, players have a set number of "lives" they are allowed to use if they fail a QTE. If they lose all of their "lives" they need to restart from their last save or from the beginning of the scene. The whole concept of "lives" in a game that works so hard to connect the game-world to the real-world feels extremely out of place and incongruous with the rest of the game. It is a shame that they are used in the game, as they truly don't add anything meaningful to the narrative and actively detract from the immersive experience. Although they certainly helped make some parts of the game less frustrating, I believe Quantic Dream could have created a more elegant system if they had enough time.

The player actually increases their allotment of "lives" by completing certain events or picking up Talismans that are found hovering in the air at secret locations. Along with these Talismans the player can also pick up Bonus Cards that are worth a certain amount of points that the player can use to unlock bonus content in the game's main menu. Both of these pickups feel completely out of place and add absolutely nothing to the narrative. In fact, I believe that they actually make the narrative less powerful as they consistently remind the player that they are playing a videogame and this breaks the immersion the other game systems worked so hard to maintain.

A Worthwhile Experience

Despite the game's many flaws, *Indigo Prophecy* remains one of the most enjoyable games I have ever played. I can appreciate it on multiple levels and I love how many different aspects of the game were simultaneously innovative and successful at increasing player immersion. The game inspired me to attempt to design game

systems that work in tandem with each other in a concerted effort to increase player immersion. It is an extremely difficult task but well worth the effort as the immersive nature of a game is often directly related to its ability to meaningfully affect players.

Indigo Prophecy contained some elegant, innovative, and successful systems that heightened player immersion and I encourage developers to play *Indigo Prophecy* or at least watch some videos of the game online to gain a better understanding of how these systems worked. Moreover, I hope this analysis inspires other developers to consider, discuss, and create game systems specifically designed to increase player immersion in their games as I certainly look forward to personally experiencing them in the future.

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“

*Far Cry 2 is a brilliant,
consistent, flawed,
dangerous and terribly
burdened work of art.*

”

JORGE ALBOR

LIONS & JACKALS: THE POLITICS OF *FAR CRY 2*

The utter savagery had closed round him – all that mysterious life of the wilderness that stirs in the forest, in the jungles, in the hearts of wild men. There's no initiation either into such mysteries. He has to live in the midst of the incomprehensible which is also detestable. And it has a fascination too, that goes to work upon him. The fascination of the abomination – you know. Imagine the growing regrets, the longing to escape, the powerless disgust, the surrender – the hate.

- Joseph Conrad, *Heart of Darkness*

The sun rises over Saharan grass lands, draping shadows across a mercenary lying on the ground. By flames or gunfire, his enemies will give their blood back to Africa, one more murder within a maelstrom of violence. This is a modern day reimagining of Joseph Conrad's *Heart of Darkness*, "this is *Far Cry 2*."¹¹⁶ Like the literary work before it, this Ubisoft Montreal developed game is of its time, depicting a popularly imagined version of politics and conflict.

The civil war taking place in *Far Cry 2* is set in a nameless African state. This nation, racked by violence, is interchangeable with any number of war zones. The hostile situation envelopes the player. Patrick Redding, Narrative Designer on the game, had this to say about the locale: "The Savannah, the shanty towns, the jungle, the desert, all these settings carry built in shorthand. It's almost hard-wired into our genetics, so that when you walk through it... you feel it."¹¹⁷ He is, in all likelihood, referring to the evocative power of the visual aesthetic. However, the environment also carries its own political "shorthand."

There is a common tendency to view Africa as a singular continent plagued with crisis, a politically confused mess of countries perpetually waging war and suppressing civil unrest. This belief is partly founded: "If violence is defined as the arbitrary use – or threat of the use – of physical force in order to achieve compliance, then it is obvious that most Africans are regularly suffering from it."¹¹⁸ Numerous states have also faced brutal internal conflict, including Rwanda, Sudan, Angola, Burundi, Mozambique, Liberia, Congo, Sierra Leone, Somalia, Nigeria, among others. Amidst crisis, we rely on familiar beliefs about others. Thus, we have "been prone to explaining current events in Africa as a process of 'backwardness.'"¹¹⁹

Ubisoft exploits these popular notions and images of Africa, setting *Far Cry 2* in a nameless country, to universalize the game's themes in a first-person shooter environment, depicting a political reality that is potentially applicable to any war zone.

Welcome to Africa

In creating a politically realistic environment, Ubisoft succeeds remarkably well. The political factions in *Far Cry 2* are as interchangeable as the country in which they fester. They share characteristics with political movements and leaders found in real world conflicts. Even their names, the United Front for Liberation and Labour (UFL) and the Alliance for Popular Resistance (APR), are outwardly pleasing constructions masking the organizations' more offensive activities. The UFL and the APR mirror paradoxical monikers such as the All People's Congress (APC) of Sierra Leone - certainly not representative of "All People" during the country's eleven year civil war between the National Provisional Ruling Council (NPRC) and the Revolutionary United Front (RUF).

The commanders of *Far Cry 2*'s UFL and APR also reflect the real world tyrants we associate with violent struggles in Africa. Across numerous conflict zones, many political leaders developed a "cult of personality," a sort of self-created form of political worship. These individuals "consciously promoted an image of omnipotence" and personal endowment.¹²⁰ Oliver Tambossa, the APR leader, is adorned in medals and military attire, a constant reminder of his status and power. Perhaps he represents the likes of Idi Amin, ex-Ugandan dictator, who seldom appeared without military vestments and validated his ruthless control with militaristic propaganda, including frequent parades honoring himself.

An important aspect of a personalized leadership is "the extent to which the selected person is an embodiment of [their] community."¹²¹ As a result, leaders commonly make claim to an imagined cultural authenticity. Both factions in *Far Cry 2* conduct themselves accordingly, decorating their headquarters with "African" artifacts – most noticeably in Act 1. An APR poster features a roaring lion, Zebra skins rest on the floors, and the walls are adorned with shields and spears.

No real world despot embodied this trend more than Mobutu Sese Seko, dictator of Zaire (now the Democratic Republic of the Congo) for 32 years. Mobutu tried to "Africanize" Zaire, demanding citizens change their Christian names to more African titles. He changed his own (Joseph-Désiré Mobutu) to Mobutu Sese Seko Nkuku Ngbendu Wa Za Banga, meaning "the all-powerful warrior who, because of his endurance and inflexible will to win, goes from conquest to conquest, leaving fire in his wake." He often wore a leopard skin cap as well, topping off his "Africaness."

Far Cry 2 draws upon common characteristics of African politics, which contribute to our perceptions about conflict in Africa. The protagonist of *Far Cry 2* finds himself enveloped by a hostile and unwelcoming environment Western culture intimately associates with Africa. According to Redding, this setting gave Ubisoft Montreal “a reason for a modern day shooter – this isn’t a sci-fi warrior, armoured-thing – this is real.”¹²² Thus, the games ideological themes become particularly resonant. At which point we should play close attention.

Into the *Heart of Darkness*

The land of *Far Cry 2* produces a maelstrom of chaos and violence. Guns jam, fires spread unpredictably, and perpetually respawning enemies threaten the player at every turn. The game’s protagonist descends into this anarchy in pursuit of the Jackal, mirroring the narrative from which the game was inspired: Joseph Conrad’s *The Heart of Darkness*. A 1902 novella first published in *Blackwood’s Edinburgh Magazine*, this fictional work about Charles Marlow’s descent into Africa in pursuit of the madman Kurtz has long been a Western literary classic. *Heart of Darkness* has inspired numerous works of fiction, perhaps most famously *Apocalypse Now*. Similarly influenced, *Far Cry 2* is strengthened by the work, but also succumbs to the pitfalls of its progenitor.

L.B. Jeffries on PopMatters discusses the game’s design in relation to Conrad’s story in his excellent piece, “*Far Cry 2: The Heart of Darkness Game*.” According to Jeffries, the assortment of life threatening and anarchic elements serve “to create a similar environment to the one that Conrad was describing in *Heart of Darkness*.”¹²³ From the Jackal’s background, to the protagonist’s malaria infection, to the interchangeable mercenaries, *Far Cry 2* develops the corrupting influence of the violent landscape. “By making the game design so brutally hostile,” Jeffries suggests, “the game is putting you through the same experience as Kurtz.”¹²⁴

In sharing thematic elements *Heart of Darkness*, *Far Cry 2* with also shares its criticisms. Chinua Achebe, professor and novelist, famously criticized Conrad and his text in “*An Image of Africa: Racism in Conrad’s Heart of Darkness*.” Fittingly, either work could soundly receive many of Achebe’s claims. Both seem to depict:

Africa as a setting and backdrop which eliminates the African as human factor.
Africa as a metaphysical battlefield devoid of all recognizable humanity, into which the wandering European enters at his peril.¹²⁵

To be fair, the mercenaries of *Far Cry 2* include non-Europeans. However, the portrayal of the civilian population is still superficial. The non-combatant civilians in the game exist in small, silent, and isolated groups only when the player has

need of malaria medication. Besides the faction leaders, all the other inhabitants of the nameless country are hostile soldiers for APR or the UFLL. These natives, also mostly silent, appear almost rabid with violent animosity, seemingly having no agency of their own. How have the factions recruited these individuals? What are their motivations and political strategies? Do they buy into the war rhetoric? If so, why? What do their civilian friends think of the conflict?

Duncan Fyfe, writing about a similar concern, suggests that the lack of civilians makes this game “a military wet dream: there’s never a civilian in that truck. Everyone has left and the country is made freely available for gung-ho wannabes to run around playing paintball.”¹²⁶ In Achebe’s words, “Heart of Darkness projects the image of Africa as ‘the other world,’ the antithesis of Europe and therefore of civilization, a place where man’s vaunted intelligence and refinement are finally mocked by triumphant bestiality.”¹²⁷ The lack of humanity in *Far Cry 2* seems to display a similar Africa – one in which violence exists as an inseparable part of the landscape and its inhabitants, an all too common myth with real world implications.

Illness and Ideology

The perpetually violent citizens bolster the narrative of *Far Cry 2*, enveloping the player in a dangerous environment in pursuit of the Jackal, the game’s Kurtz figure. To their credit, both works criticize the idea encapsulated by Kurtz’s statement, “By the simple exercise of our will we can exert a power for good practically unbounded.”¹²⁸ The mercenaries and other foreign influences in *Far Cry 2* are not unwitting visitors to a terrible Africa. On the contrary, they are infected with violence before hand, and the African environment merely accelerates the contagion. In positing such an affliction, and creating a Kurtz-like philosopher in the Jackal, the game extols a significant political ideology.

Like Kurtz’s letters in *Heart of Darkness*, the Jackal’s audio tapes dot *Far Cry 2*’s landscape, revealing his thoughts on the war around him. From his perspective, violence has assumed a terrifying power. It has become an illness, one he too carries, able to kill a man with “the realization of what he turned into.”¹²⁹ This approach to violence posits an outlook similar to Conrad’s fiction. That is to say, *Far Cry 2* depicts, and perhaps validates, prominent perceptions of Africa as a carrier of disease, of contagion, of civilization spoiled.

The Jackal’s ideology shares much with the political philosophy of Thomas Hobbes:

Who gets the lion’s share; that’s what it’s all about. Whether it’s between children, or animals, or warlords. It’s not that everyone wants a piece, it’s that everyone wants the biggest piece. And the biggest piece doesn’t go to

the monkey, or to the giraffe. The biggest piece goes to the lion. Because the lion is the fucking king! That's how it works. It worked that way a million years before there were men saying otherwise. That's probably how it should work.¹³⁰

The nameless country of *Far Cry 2* cannot be salvaged. No cure exists for the pervasive violence afflicting the nation and its inhabitants. The African soldiers, lacking agency, merely add fuel to the fire:

“They're blowing each other away for someone else's - for someone else: Tambossa, Mbantuwe, UFLL, APR. There is no popular resistance, no Liberty or Labor. There is no ideology at all. There is not even a desire to win.”¹³¹

The Jackal's solution is to remove the 'invisible' refugees and let the country devour itself alive. Politically and culturally, many see Africa as an automaton, a golem created by colonialism, abandoned and doomed to carry out its wicked fate, becoming a perpetual maelstrom of violence and instability. On the world stage, this perception can justify inaction in the face of state failure or self-interested intervention, and shape the world's approach to many countries in need. The Jackal espouses this view of the world, one in which conflict is innate and incessant. Where Conrad could be called a “purveyor of comforting myths,” Ubisoft Montreal could be called a purveyor of uncomfortable myths.¹³²

It could be argued that the Jackal is a satirical figure, one whose opinion should not be trusted. Patrick Redding does say the game is “about one man's journey down the proverbial river into the *Heart of Darkness*, into the mind of a madman.”¹³³ Facing a similar contention, Achebe states any effort Conrad might employ to criticize the narrator is “totally wasted because he neglects to hint however subtly or tentatively at an alternative frame of reference by which we may judge the actions and opinions of his characters.”¹³⁴ The same argument can be levied against Ubisoft.

Far Cry 2 greatly succeeds in creating a hostile narrative and environment, with a cast so deeply entrenched in the conflict, that the Jackal's world completely immerses the player. Redding has this to say in regards to the game's politics:

“We're not trying to say, ‘Oh, the trouble with people today is they're not willing to do really terrible, evil, monstrous things in order to accomplish the greater good.’ This isn't like some neocon wet dream, right? The idea is that we don't pretend like we know the answer.”¹³⁵

Unfortunately, by not putting forward an alternative answer, the game constructs a narrative that confirms the Jackal's beliefs. At which point, the prominent portrayal of a doomed Africa, collapsing under incessant violence, is all too palatable.

Conclusion

Achebe went so far as to call Joseph Conrad a “thoroughgoing racist.”¹³⁶ The point of my discussion is not to criticize Ubisoft’s creation as a neoconservative blight on the medium. On the contrary, *Far Cry 2*’s successfully designed and fully realized world, with its pervasive hostility, negates the construction of an alternative framework for understanding violence. It first creates a politically realistic landscape, and then succumbs to the same flaws as its literary double. Just like *Heart of Darkness*, *Far Cry 2* dismantles popular notions of foreign actors in conflict zones (and first-person shooters in this case), while simultaneously bolstering a contentious political ideology.

This need not be intentional. In a comment on an earlier version of this article, *Far Cry 2* Lead Designer Clint Hocking mentioned that technical limitations partly explain the minimized presence of civilians in the game. Also, in such an emergent and violent scenario, the presence of civilians would pose ethical quandaries and potentially result in an Adults Only rating.¹³⁷ Regardless, the depiction of the nameless African country and its political fate is still present.

While I personally find the Jackal’s world view and its real world equivalents deplorable, its presence in the game does not ruin the experience. Like *Heart of Darkness*, *Far Cry 2* is a cultural artifact of its time. The game’s tacit message is a testament to the power of the medium. Accordingly, I can appreciate it as a video game while also understanding it within a larger discourse of politics. Again, Narrative Designer Patrick Redding sums up this thought nicely:

Maybe 80% of our players are just like, ‘Yes, this is great fun! I’m blowing stuff up and burning things.’ Maybe only a small piece of that message gets through. And if that’s the case, that’s fine. We’ve still built a really good shooter. But what we’re saying is, for that percentage of gamers who are affected by these things, and who think about these things, we want it to be there.¹³⁸

Redding and his team succeeded. *Far Cry 2* is a brilliant, consistent, flawed, dangerous and terribly burdened work of art. Like *Heart of Darkness*, it should be considered a classic and receive all the praise and all the scrutiny it deserves.

ENDNOTES

- ¹¹⁷ Lead Designer Clint Hocking on the game's inspiration: "The original Far Cry is The Island of Dr. Moreau, story of a mad scientist that has unlocked the inner savagery in man and created literal monsters. But at the same time HG Wells was writing Moreau, Joseph Conrad was writing Heart of Darkness, which actually has very similar themes. It's about someone in the jungle that has discovered and is leveraging man's inner madness, and become a metaphorical rather than literal monster. This is Far Cry 2." See EDGE Staff, "FEATURE: Far Cry 2's Heart of Darkness," EDGE Magazine, 2008, <http://www.edge-online.com/magazine/feature-far-cry-2s-heart-darkness?page=0%2C2>
- ¹¹⁸ Patrick Redding, Interview with Luke Guttridge, "Patrick Redding on Far Cry 2," Play.tm, <http://play.tm/interview/21585/patrick-redding-on-far-cry-2/2/>)
- ¹¹⁹ Patrick Chabal, and Jean-Pascal Daloz, *Africa Works: Disorder as Political Instrument* (Bloomington: Indiana University Press, 1999), 77.
- ¹²⁰ Chabal and Daloz, *Africa Works*, 50
- ¹²¹ Michael Bratton and Nicolas van de Walle, *Democratic Experiments in Africa: Regime Transition in Comparative Perspective* (Cambridge: Cambridge University Press, 1997), 65
- ¹²² Chabal and Daloz, *Africa Works*, 55
- ¹²³ Redding, Interview, Play.tm
- ¹²⁴ L.B. Jeffries, "Far Cry 2: The Heart of Darkness Game," PopMatters, <http://www.popmatters.com/pm/column/71590-far-cry-2-the-heart-of-darkness-game/>
- ¹²⁵ Jeffries, "Far Cry 2," PopMatters
- ¹²⁶ Chinua Achebe, "An Image of Africa: Racism in Conrad's Heart of Darkness," criticism to Heart of Darkness, by Joseph Conrad (W.W. Norton & Company, 1988), 253
- ¹²⁷ Duncan Fyfe, "War Crimes," Hit Self-Destruct Blog, <http://www.hitselfdestruct.com/2009/03/war-crimes.html>
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- ¹²⁹ Joseph Conrad, *Heart of Darkness* (W.W. Norton & Company, 1988), 50
- ¹³⁰ Far Cry 2, Ubisoft Montreal, 2008.
- ¹³¹ Ibid.
- ¹³² Ibid.
- ¹³³ Achebe, "An Image of Africa," 253
- ¹³⁴ Patrick Redding, Interview with Chris Remo and Brandon Sheffield, "Redefining Game Narrative: Ubisoft's Patrick Redding on Far Cry 2," Gamasutra, <http://experiencepoints.blogspot.com/2010/06/fate-and-frontier.html>
- ¹³⁵ Achebe, "An Image of Africa," 256
- ¹³⁶ Redding, Interview with Remo and Sheffield
- ¹³⁷ Achebe, "An Image of Africa," 257
- ¹³⁸ Clint Hocking, comment on "Lions & Jackals," Experience Points Blog, <http://experiencepoints.blogspot.com/2010/06/fate-and-frontier.html>
- ¹³⁹ Redding, Interview with Remo and Sheffield

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It is impossible to deny that the multiplayer in Diablo II is probably the most groundbreaking mechanic in the game.

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SETH SIVAK

DIABLO II

Introduction

Over the last several decades there have been many attempts to create an overarching definition of a “game”. In the following chapter I am not going to attempt to pile on yet another, but instead breakdown some patterns in Diablo II that I think make it a great game. There are noticeable structural elements that can be clearly identified, and I hope that at the end of this chapter the reader will have a better understanding as to why Diablo II is one of the best games ever made.

There is no way to adequately analyze and discuss everything about Diablo II (D2) in a whole volume of *Well Played*, let alone a single chapter. D2 is still in the top 20 best-selling PC games each week almost ten years after it was released on June 29, 2000. The worldwide sales figures for D2 are estimated at close to 5.4 million (1), making it the 8th best-selling PC game of all time (ahead of *World of Warcraft: Wrath of Lich King*, which has 5.24 million at the time of this writing). There is no doubt that D2 has some of the best staying power of any game ever made.

The game is still being played by tens (if not hundreds) of thousands of people each day. This is no small feat, consider some of the other games released in the year 2000: *Perfect Dark (N64)*, *The Legend of Zelda: Majora's Mask (N64)*, *Deus Ex (PC)*, *Boulder's Gate: Shadow of Amn (PC)*, *Tony Hawk's Pro Skater 2 (Playstation)* and this was just picking a few of the best-sellers. How many of these games have thousands of fans playing them every day? There is something special about D2 that makes it so replayable. There is something that draws players in and does not let them go.

When first looking at a game like D2, it is important to pull out the moments of fun, these are the actual actions that happen in the game that are enjoyable. Ignoring online-play for now and only focusing on the single player, there is really only six different moments that occur throughout the game. These moments are the actual combat, using a new skill, leveling up the character, exploring an area, finding loot and completing a quest. All of these moments fit into three main categories of mechanics: combat, character building and story. These all appear simple and generic, *but they all work together in important ways.*

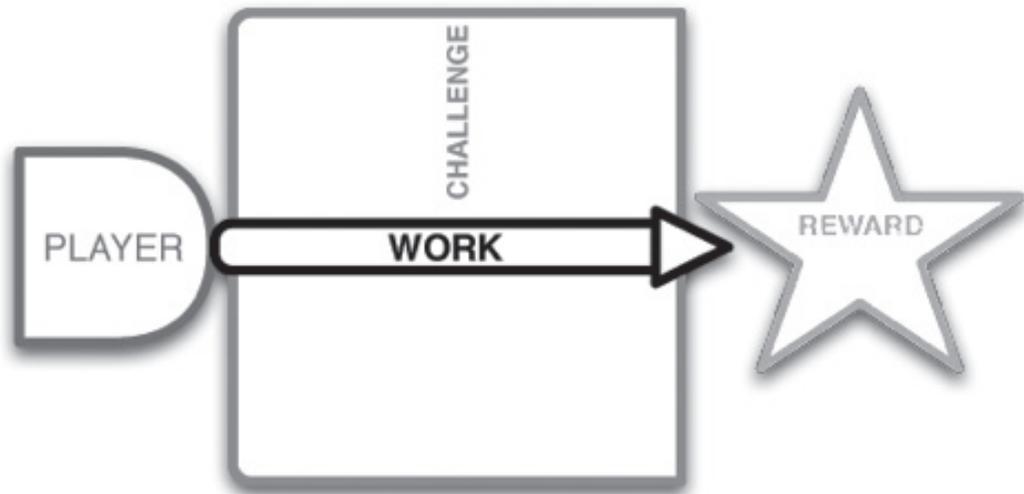
Looking beyond the moments, it is interesting to consider the motivation of the player once the story-based gameplay has been finished. There is a Challenge Pivot Point that occurs when the player takes charge of selecting their own challenges and no longer relies on the game to provide them in a linear fashion. This will be discussed towards the end of the essay along with a brief analysis of The Social Factor, which is so valuable to D2.

Before we jump into an analysis of the moments, it is important to establish a basic structure for interaction in D2 and other games. After playing hundreds of hours of D2, I think the most basic way to explain the core structure is the Challenge – Work – Reward Cycle.

Challenge – Work – Reward Cycle

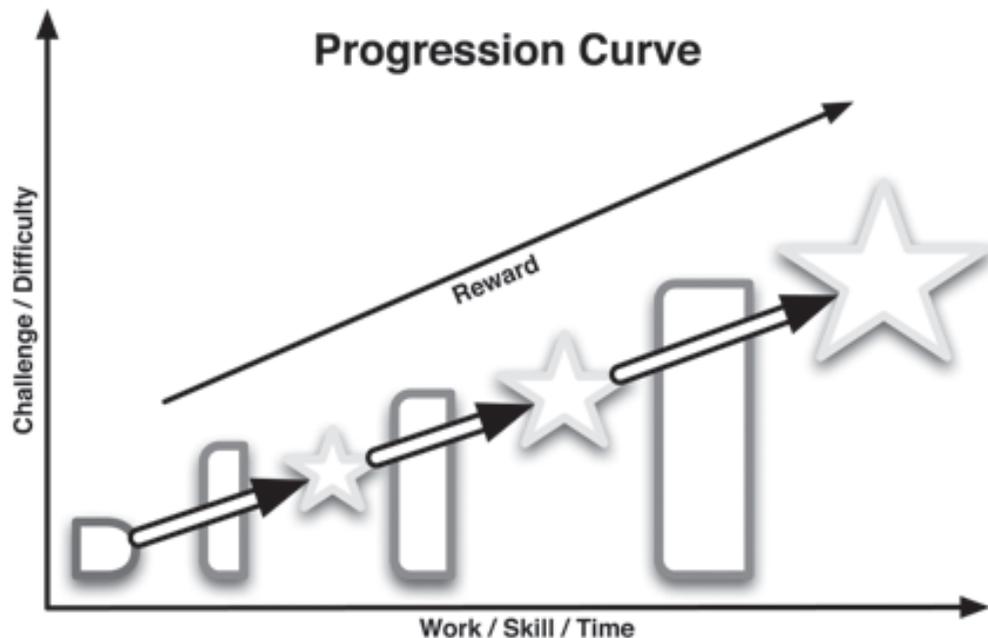
While analyzing D2, I found that there was a constant pattern that develops around every goal and challenge. This pattern is simple, but becomes much more interesting once consideration is given to the will of the player and the ability for the player to seek out their own challenges. In general the most basic gameplay loop is the game presenting the player with a challenge, the player doing work or using a skill to complete the challenge, and the game rewarding the player based on a scale of how they performed while completing the challenge.

The Challenge - Work - Reward Cycle



A player is likely to feel compelled to complete the first few challenges that any game throws their way. There is initial interest in exploring any new game, and this is normally due to the money the player spent to acquire the game. However,

it is important to note that the challenge needs to be balanced such that the work or skill required does not outweigh the player's current investment in the game. If the first task that a player is given requires prolonged gameplay, like traversing an entire dungeon, the player is much less likely to complete it. Most well balanced games build this up slowly, working hard to give greater rewards for challenges that require more work or skill. This creates a progression curve.



The increasing ability of the player, and the feeling of satisfaction from completing increasingly difficult challenges, creates a feeling of mastery in the player. This sense of mastery, combined with the feeling of progression and knowledge of the game world will lead to greater investment from the player. In turn it is this investment that drives the player forward to continue to work on challenges of greater depth. This idea of balancing ability level with challenge is one of the pillars of the theory of flow from Mihaly Csíkszentmihályi (2). When done correctly it allows the player to progress without ever feeling that the game is too easy, or getting frustrated because the game is too difficult.

These patterns can be seen in D2 and many other games. With a clear understanding of these structures it is easier to look at how a series of moments can be combined to create a powerful game. A game as deep as D2 does not rely on a single threaded progression curve, but instead allows for several to be woven together and overlap. This complexity means that longer tasks feel incremental, because while working towards the long-term goal there is progress made on short-term goals. To get a better understanding of this we need to look deeper into the moments that actually make up Diablo II.

Suite of Moments

Every gamer has experienced the feeling of a headshot, or that great interception, or beating a difficult boss. These specific moments are what games strive to create. They may not always be fun, but they are always emotional and compelling for the player. These moments usually involve a surprise, a change of status (the saving roll) or a completion of a goal resulting in satisfaction. Distilling these points down, it becomes clear they are finite and granular and the reaction that the player has to something in the game. D2 has six main moments, and when they all flow together they create a perpetual waterfall with each one feeding into the others. There is a clear hierarchy here where the combat and story moments feed into character building, which is why character building becomes the eventual focus of the game. The player gets hooked on the moment-to-moment gameplay and narrative, but stays for the progression of the character.

Combat

While playing D2, it is difficult to deny that there is a strong focus on combat. The buttons that the player presses and the actions that take up the majority of the game are focused around this mechanic. This is the necessary moment-to-moment gameplay that engages the player in the world and with their character. All of the story and character building moments either include or are the direct result of combat. This is how player's gain experience for their character, but it is also how they gain skill at playing the game.

The combat in D2 is somewhat complex. Each different character type has dozens of skills that need to be coordinated and used together to defeat enemies. The act of selecting a target and needing to click on them, or a location near them, is inherently interesting. It requires hand-eye coordination and timing, both are actions that require a certain amount of prowess. There is some level of aptitude involved in choosing the proper skill and using it at the proper time. This is what draws the player into the game and is the most interesting interaction they can experience in the game world. D2 does an excellent job of making the moments of combat very granular. There are small pockets of enemies that appear, and they almost always come running from off-screen at the character (it is just more exciting that way, they become a threat). These short sections of gameplay create fun moments that come at irregular intervals creating surprise and excitement.

As the character gains experience more skills unlock. There is an important difference between combat with known skills and the combat that occurs while the player is learning a new skill. Part of the strategy of the game lies in finding combinations of skills that work together, and knowing when to properly execute them. It is a fun moment when a player discovers a new combination of skills or interesting way

of using a new skill. The player will feel smart and more powerful, and player's character will progress and grow. These two moments are the core interactive component of the gameplay of D2 and feed directly into character building.

Character Building

Experience-based role-playing games are nothing new, and D2 did not do much to innovate on the idea. The factor that makes an RPG different from say, a shooter, is that the focus of the RPG is on the player's character. The progress of the player is not tracked by the level in the game world or the number of puzzles completed, but by the experience and gear of the character. This means that in the eyes of the player, going through the same game world level repeatedly in an RPG is fundamentally different than that of a shooter. In a shooter, progression is judged by the levels the player completes, but in an RPG progression is judged by the player's character. Replaying the same level in Halo is similar to leveling the player's character from 10 to 11 multiple times. RPG players usually only do this with a different type of character.

There is really two major ways to increase the power of the character, and they are both important accomplishments for the player. The first is to reach the next level, or "level up" the player's character. This incremental step comes after getting experience from completing quests or defeating enemies and gives the player a strategic choice of where to put a skill point and stat points. This fits perfectly into the progression curve discussed earlier because each level requires slightly more experience than the last one. Leveling up is very important for the player because it can unlock new content in the form of skills. This will allow the player to try out these new mechanics, which can have a drastic impact on the moment-to-moment combat gameplay. This is the most concrete feedback that the player receives about the progression of their character.

The other important moment in regards to character building is getting new loot. How well the character performs is related to the character stats, skills and equipment. Getting a new item can often profoundly change the overall gameplay. Getting loot typically happens as a result of defeating enemies in combat, but can sometimes come as a quest reward. The randomness of "loot drops" is a particularly interesting phenomenon that taps directly into human psychology. Specifically, the work of B. F. Skinner in operant conditioning, which showed ways to model behavior based on reinforcement and response. Essentially, the knowledge that the next enemy might drop the item that the player is looking for is enough to drive the player to keep going after that item. If the item the player wanted dropped from a specific enemy at a specific time there would be no surprise, which really would not be any fun.

Both of the moments related to character building have an impact on how the character performs during combat. However, these accomplishments only come as a direct result of combat or completing quests, which creates a cycle for the player that allows one achievement to feed off another. These moments are specifically centered on milestones that the character achieves, and there is no way for the player to “win” in this regard. While there is a level cap, it requires a near insurmountable amount of time for most players, and due to the random nature of rare item creation, it is essentially impossible to find a perfect set of equipment. This creates a vast amount of open-ended gameplay that becomes important when making the pivot from game-supplied challenges to player-supplied challenges.

Story

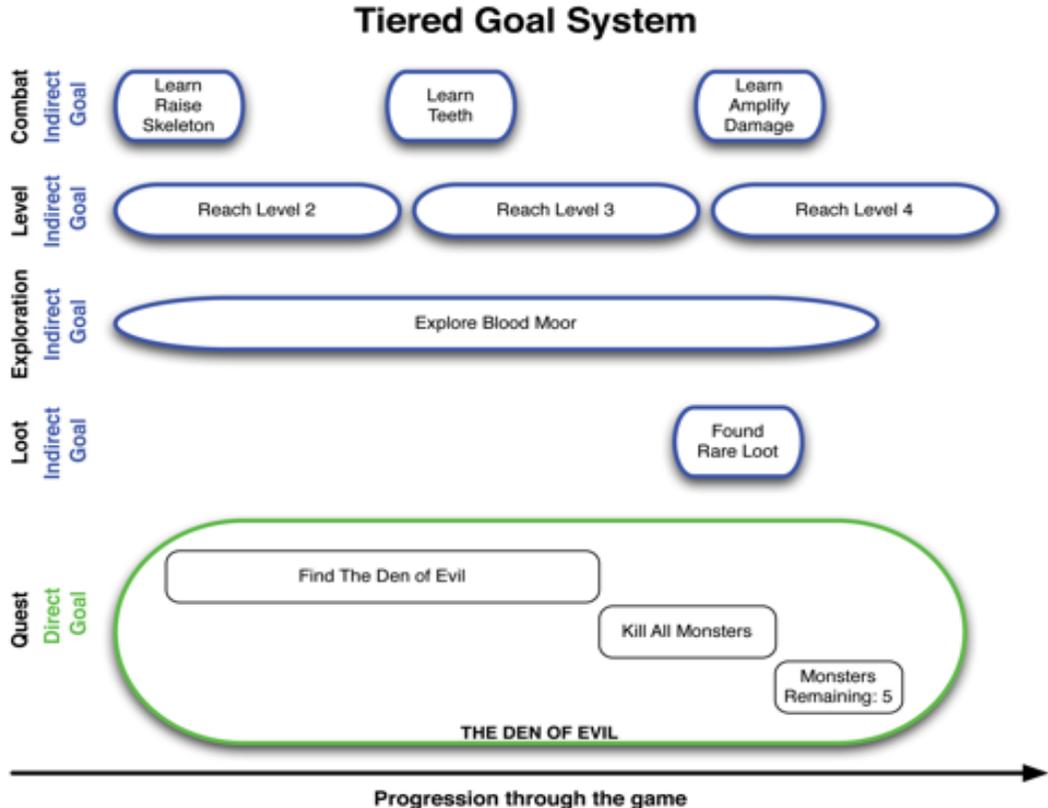
One of the most essential elements to D2 is exploration. The levels in the game world are randomly generated with a wide variety of art. Each time the player steps out of the starting town in an Act there is something unknown to explore. The map is not given to the player; they must uncover it by traversing the entire area. This creates urgency in the player to fully explore entire areas. It is not enough to simply travel from point to point, there is the possibility of a rare monster or powerful shrine, and so it is worth the extra time to search. There is a feeling of accomplishment when an area is fully explored and this often works as a solid short-term goal, much like finishing a level in traditional non-RPG games. It is no coincidence that the first quest in the game is to find a cave and explore the entire area to defeat all the monsters. This quest could have easily been to kill 50 monsters, but by making it about cleansing the entire cave, it teaches the player the value of exploration.

The clearest examples of challenges in the game are the quests. These are the narrative drivers of the game and the most powerful tools that the game has to incentivize the player. These are hand-authored pieces of content, which is a stark contrast to the randomized level layout and generated items. This is the piece of the game that makes it feel familiar, like a single-player RPG. The quests are crafted in such a way that the player is always working on at least one at any given time (through normal gameplay). These serve as longer term goals since there are fewer quests than there are game levels and each quest requires the player to be roughly three to five levels higher than the last quest. The player is given a quest early on, with little knowledge about the game world, or their character, but as they pursue the quest they will hit other incremental goals like the moments mentioned before. Each time a new game level is fully explored or the character reaches a new level, the player gets an incremental reward and starts to become more invested in the game. Players seem to respond very well to quest driven gameplay and it is brilliant to put these smaller goals along the way so the player can learn about them and start to understand the value before making the pivot away from quests being the player’s direct goal.

Clearly the completion of a quest is an important moment. This uncovers more narrative and usually opens up more quests. It also usually includes a reward both in the form of experience for the character but also a new piece of loot. Completing quests is usually a highlight and milestone in the game as the player builds investment towards choosing their own goals. The rewards for the quest feed into character building, so while the quests stand as the focus for the early game that long-term goal remains character building.

Example: Overlapping Interest

To make the idea of a suite of moments more concrete here is an example play session for the very first quest in D2. The moments come together to form a Tiered Goal System for the player that includes goals, which take differing lengths of time. At this early stage of the game it is fair to say that the player will experience these moments along the way to their direct goal, which is given by the game in the form of the Den of Evil quest.



The actual individual combat events are not placed in this graph because of the sheer amount, but all other moments are included. It is important to note that the long-term goal of the Den of Evil quest is achieved only after experiencing all of the

other moments listed. In this particular case I was playing as a Necromancer and I ended up having to explore the entire Blood Moor before finding the Den of Evil. Even if this were not the case, I would have been required to explore the entire Den of Evil before I could complete the quest. The steps in the Den of Evil quest were included because it is interesting to see that even the quests have some incremental goals and feedback associated with them.

The use of a direct goal, given by the game, is a powerful way to get the player invested. The indirect goals are somewhat unexpected at this stage. They are a nice surprise for the player, but the focus remains on finishing that quest. The use of quests to instill the player with a sense of purpose early on is needed to really gear up the investment that the player has in the character and game world. Simply telling the player to reach level four or search for some loot would likely not be good enough at this early stage of the game. Most players would not clearly understand why they would want to reach level four, it is too abstract and the temptation of new loot does not matter much when the player does not understand the importance of items.

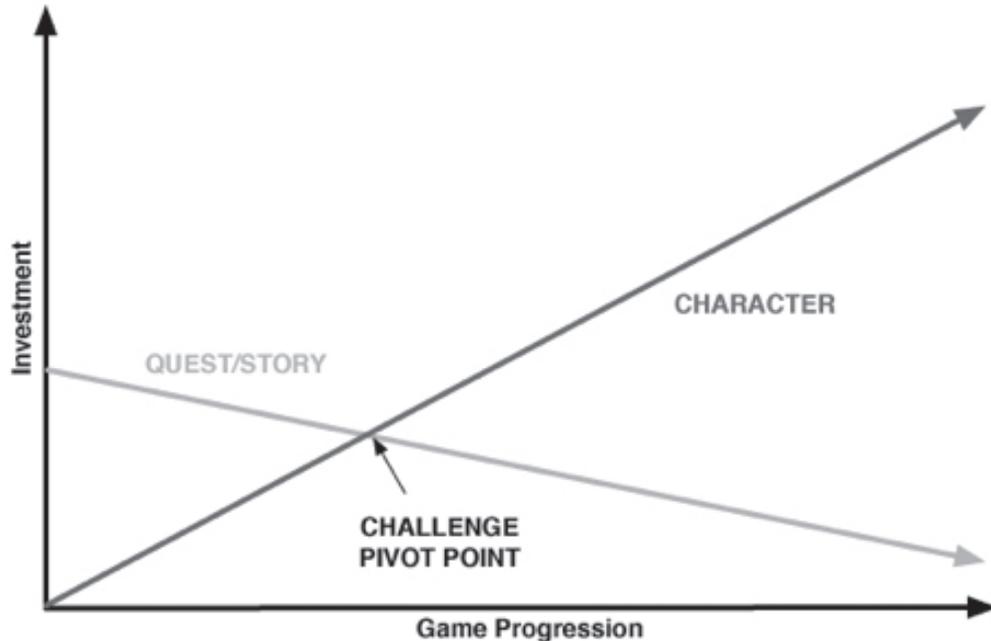
Quests are needed, even in open-ended games, to let the player learn about the world and what they can do in it. The use of a solid narrative resonates with players, and they often accept it and are able to suspend their disbelief to a greater degree. The quest gives the player something familiar in a totally unfamiliar world, even if a player has no idea what the Den of Evil is they can likely guess it is a place with a bunch of monsters and is inherently bad. Who wouldn't want to cleanse the Den of Evil?

However, the hand-authored quest content eventually runs out, yet even after treading through it on three difficulty levels, players continue to play D2. The reason behind this lies in the pivot from game-supplied challenges to player-supplied challenges.

Challenge Pivot Point

As mentioned previously, the quests in D2 can only bring the player so far. The player will eventually become invested enough in their character that the quests are no longer their direct goal. The player will not get bored using the same skills constantly, doing the same quest for the third time or exploring the same game levels with the same monster, because they are gaining experience towards their character's next level up. The point where the player's character becomes their primary motivation is the Challenge Pivot Point. It is when the player will start to "grind" for goals that they choose for themselves.

Player Investment



In the Challenge-Work-Reward cycle discussed earlier, the burden of supplying the challenges rests on the game. The quests and story provides hand-authored content that the player can experience in a very linear fashion. The player has initial investment in the game from purchasing it, and the player is sent on a game controlled linear path of goals from the start. At the Challenge Pivot Point, the game is no longer in control. This is the point when the player is now in charge, seeking his or her own challenges and goals. It can be anything from reaching maximum level to completing a certain item set, and in D2 it is almost always related to character building. The character building provides the most open-ended content, and the player can start to pick and choose what they find important for *their character*.

This is the basis for all achievement-type mechanics. The game no longer provides a set of linear goals, but instead just provides a huge variety of goals and challenges. Normally, a player would find these choices overwhelming, not quite understanding what consequences might occur or how much work is required for a certain challenge. However, when they are at the Challenge Pivot Point, the player is quite experienced in the game and is also invested enough to want to make these choices.

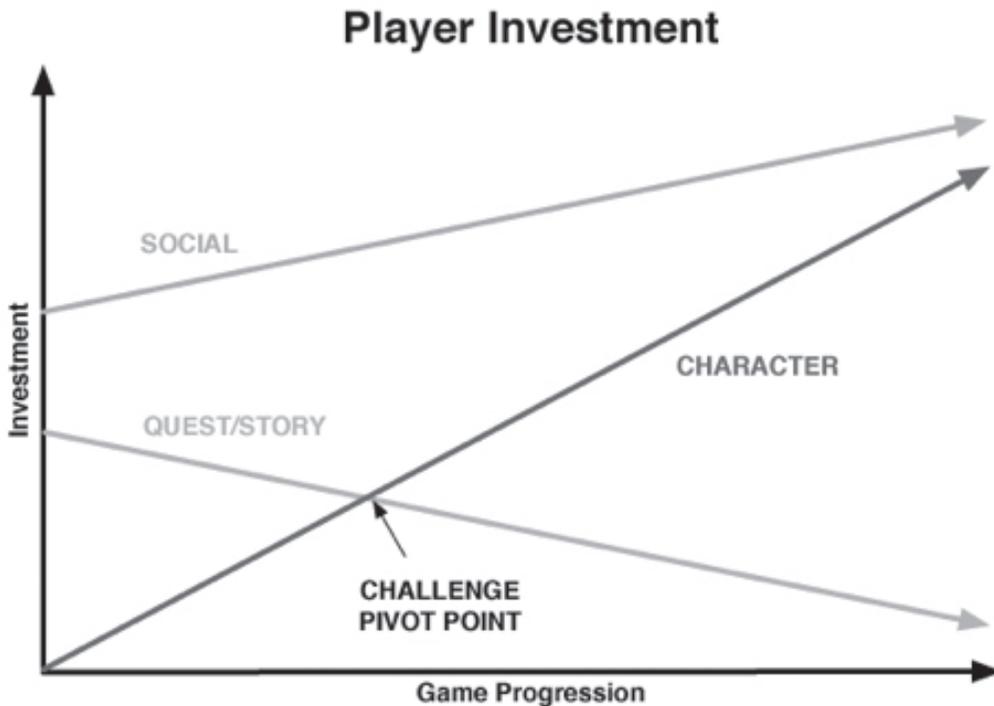
The player is introduced to these challenges and moments early on, but they are not the focus. They are just a nice incremental bonus. The player is not expected to find them meaningful until they have fully grasped the depth of the gameplay. The excellent use of quests in D2 prepares the player for the end game, where the story no longer matters as much to the player, but instead it is their character that takes over. Blizzard has used this cycle of quests providing the bridge to the character-focused end game in both *D2* and *World of Warcraft*

The Social Factor

It is impossible to deny that the multiplayer in D2 is probably the most groundbreaking mechanic in the game. D2 utilizes the feeling of adventuring as a group to help support the player's investment in their own characters. The characters are their representation to other real-world people, and therefore reflect on their real-world selves. Playing with friends also adds instant investment for the player and gives the player something familiar early on.

Social pressure has an interesting impact on games. Even if a player is bored of the game, or has no quests to complete, they will likely still help out a friend if asked. This is due to the fact that the player is invested in that relationship with their friend, much the same way they become invested in their character. Players will reread content over and over if it will further their relationships with friends. Every single moment mentioned above becomes better when shared with friends, and there are new dynamics that become important when friends are involved.

When playing with friends the Challenge Pivot Point changes to be a pivot between the game created challenges and those presented by a friend. These include both helping a friend and engaging them directly in competition. The reason this transition is so easy relies on the fact that the player has a strong investment in the relationship with their friend, so it is easy for that to overtake their investment in the game.



The social investment is always high and will likely often take priority over other challenges. This can obviously change based on the relationship of the player and friends, but for the most part the social gameplay will always trump the rest. However, due to the limited amount of time that players can actually play together, the Challenge Pivot Point is still very important, and will often be accelerated because investment in the character becomes much more personal when other people view it as a representation of the player.

D2 does allow for directly competitive multiplayer through dueling, but this is a fraction of the overall multiplayer experience. However, there is certainly indirect competition between friends trying to gain levels faster or complete more quests. The social factor in D2 adds a complex layer of competition and teamwork. Players can advance faster by working together, but then they must share the rewards. It is impossible to ignore the social factor in D2 and it is very obvious that it adds replayability to the game. Players will continue to play because their friends play. This has become the backbone of many massively multiplayer online games and games on social networks. The goal of these games is to create a social environment that the player will want to go to spend time with their friends.

Conclusion

D2 really excels at creating investment that feeds into open-ended content allowing for huge amounts of playing time. This feels so effortless and seamless; the player is whisked along on quests until they understand the game enough to actively seek out ways to make their character better. This is compounded by the added social mechanic of helping out (and competing with) friends along the way. D2 has such depth that by analyzing the underlying structure it feels somewhat simple, but it is impossible to discount the difficulty of balancing these mechanics and the sheer amount of hand-authored content that the game includes. The use of the Challenge-Work-Reward cycle to offer players familiar narrative quests is used perfectly to bring the player to the Challenge Pivot Point where the player decides to take control. That level of investment in any game is rare, and that is why D2 is still so impressive even after a decade.

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I think there is something quite beautiful about a game design which is so intrinsically dependent on randomness, yet still manages to produce a truly substantial play experience every time.

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JESPER JUUL AND RASMUS KELDORFF

DEPTH IN ONE MINUTE: A CONVERSATION ABOUT BEJEWELED BLITZ

The following is the result of an internet-based conversation between the authors about Bejeweled Blitz (PopCap Games 2008). Bejeweled Blitz (hereafter Blitz) is a 60-second version of the match-3 game Bejeweled (PopCap Games 2001). Played mostly on Facebook, Blitz features a high score table with the ranked scores of the player's friends. The high score table is reset every week.

Blitz is interesting because the match-3 game type that Bejeweled helped spawn has been held in low esteem by the traditional video-game playing audience as a non-challenging, second-rate “casual” video game (Juul 2007), yet Blitz uses the basic gameplay of Bejeweled to create a highly competitive and frantic playing experience.

At the time of writing, the Facebook version of Blitz has 11 million monthly players (Lowensohn 2010).

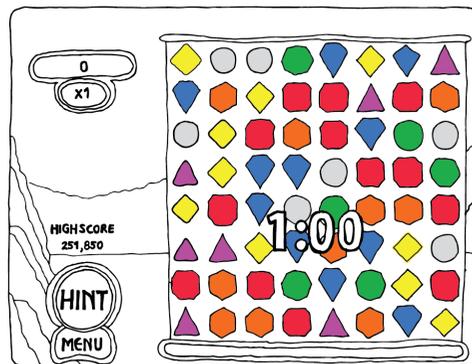


Figure 1: *Bejeweled Blitz* (PopCap 2008)

Getting into Blitz

Jesper: I think it is appropriate to discuss Bejeweled Blitz in a conversation because it is a game that is nominally single player, but for me has been completely determined by the existence of the updated friend's high score table on Facebook. When I first picked up Blitz, I think I saw it as just a quite shallow short-form version of Bejeweled. A few years ago, I spent some time writing a history of matching tile games, which in turn meant playing dozens or hundreds of different games. I enjoyed looking at the minute differences between them, but from reviews and player reactions to these games, it was also clear that matching tile games are generally looked down upon as simple and shallow (Juul 2007). At the same time, it seems intuitively true that a game played in a short time is necessarily less deep than a game played for a longer time, so it felt obvious that Blitz would not promote deep skills or strategies.

It was only when I saw the status updates from my high-scoring Facebook friends that I began to search seriously for deeper strategies in the game. There is competition with the other players, of course, but simply knowing that the game has depth fundamentally alters the way I play. I suppose this goes back to the high score table from early arcade games, but knowing the high scores of friends have certainly changed the way I see Blitz. That was my story. You, on the other hand, seemed to be getting very high scores early on. How did you get into Blitz?

Rasmus: I have an absolute love for puzzle action games. I think they occasionally outshine every other gaming genre with bursts of innovation and brilliance, crystallized into a standout game. And I think Blitz is such a game. When Blitz came out, I was instantly hooked, because this was something I was already looking for; it seemed like the perfect action-puzzle hybrid, something I had been thinking of ever since Collapse (Gamehouse 1998). I was always into match-3s, ever since Bejeweled came out, but the sequel did not really do anything for me. With Bejeweled 2 (PopCap Games 2004a), it seemed like the game would always snatch the action away from you when things were finally heating up; you would have created a few flame gems, possibly a hypercube, and the level would just end, bam.

Blitz, on the other hand, lets you build up meaty clusters of super gems and detonate them all in one phantasmagoric chain-explosion of fireworks. It invites creativity, experimentation, and quick thinking in a way that previous games in the genre have not, so in that way it is almost a sandbox experience. In addition, I quickly found that Blitz tickled my core gamer bone in a way that few other casual games have managed to do; it is somewhat of a crossover in that respect. For a casual game, it is pretty manic — you cannot just sit down with it, relax, and let your mind go blank. Therefore, *Blitz* challenges us to think about casual games in a new light.

Jesper: And see non-casual games in a new light, I might add. One of the things I find fascinating about casual games is how they are often described as a big “other”. As if we have “real”, “hardcore” video games played by “real” players over here, then at some distance there is a strange phenomenon called “casual games” that is assumed to work by entirely different principles. “Casual players” are obviously also assumed to be entirely different creatures than “real” players. At the same time, nobody really likes those terms, but we do not have any better terms to use instead, and we have to acknowledge that the ideas of “casual” and “hardcore” play an important role in game culture, game design, and the game industry (Juul 2009). Perhaps the best way to describe it is to say that match-3 games are strongly associated with the idea of casual games and casual players. *Blitz* is fascinating because it introduces extremely short play sessions — something we associate with “casual” games — but in the process of doing so it also creates a head-to-head competition that we associate with “hardcore” games.

Depth & Design

Rasmus: I am curious — Jesper, once you realized that there must be deeper strategies to the game, which ones did you come up with first? And in what order?

Jesper: It was really when *Jewel Quest* (iWin 2004) introduced the criteria you had to perform a match on every square in order to complete a level, that I started making long-term planning, thinking about matches several steps ahead. The second level of match-3 strategy came to me when I played *Puzzle Quest* (Infinite Interactive 2007), where preventing the opponent from getting a match becomes important. That made it necessary to think about the playing board in a negative sense: not just about maximizing opportunities in the following step, but about preventing opportunities from arising. All of that carried over to *Blitz*.

But to go back to the beginning, I think that the first thing a player will do is to memorize the three basic patterns that can be made into a match by moving a single piece: Since a match always involves placing similar pieces on a straight line, the player must move a piece that is either 1) along the length of the final match, 2) diagonal from pair of similar pieces or 3) in the middle between two similar pieces (Figure 2). These can then occur in mirrored and rotated forms.

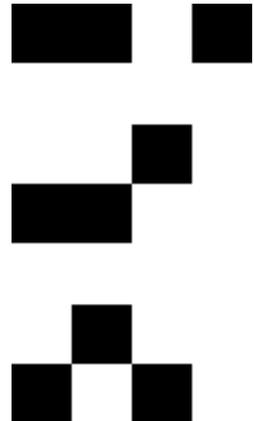


Figure 2: The three potential match-3 patterns in *Bejeweled*

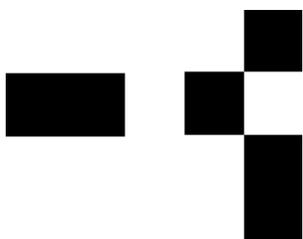
Since *Blitz* awards us with special objects for longer matches, we then learn to search for larger matches. Figure 3 shows the patterns that we look for in order to create a match 4- or 5.



Figure 3: The match-4 and match-5 patterns in Bejeweled.



The five patterns in Figure 2 and Figure 3 are the basic patterns of match-3, not just because they are the easiest to learn, but also because they are the fundamental actions available to you. Every single action performed in a match-3 is a variant or combination of these five basic patterns.



However, I think that because we see more short matches, we become more attuned to them. For example, I often find myself in a position like in Figure 4. On a bad day, I will see the horizontal match possibility first and make a match-3, only to realize that I could have done the vertical match-4.

Figure 4: What do you see first — match-3 or 4?

Returning to your question about strategies, I do not think of myself as strategic player in a fast game like *Blitz*. As a player, I am rather trying to balance my instinctual recognition of the patterns above with longer-term strategic thinking. How long time should I spend searching for a useful match-4 or 5 if there is a not-so-useful match-3 available?

On top of the patterns above, there are, of course a number of more complicated patterns: Making a match to move the next match into position; gradually chipping away at unrelated colors to get to a special object you want to activate; making matches at the bottom of the screen to shake things up. Some of these become instinctual — I may have a feeling that there is something interesting going on with the gray objects on the right side of the playing field and I will try to bring them down to align with some gray objects in the center of the playing field. Play theorist Brian Sutton-Smith has proposed that all play can be seen as a negotiation between your reflective capacities (i.e. thinking) and your reflexes (Sutton-Smith 2008). I

do think that this describes the experience of *Blitz* very well: I am training some basic pattern-recognition skills that I am not really controlling consciously, and at the same time, I am trying to manage which patterns to look for at a given moment.

The strange thing about playing games like this with shared high score lists but no access to the strategies of other players is that where you'd regularly simply copy whatever strategies you see people using, the dynamic in *Blitz* is that you see someone's high score and that makes you realize that there is some strategy or trick out there that you haven't been using, but you have to figure out for yourself what that strategy is.

For *Blitz*, I simply did not understand how people could get 200.000+ scores, so it was only when I understood that I could trigger multipliers by making large matches that I started getting anywhere. Your score in *Blitz* is strongly dependent on multipliers, which in turn are dependent on clearing a large part of the board in one go, which in turn is dependent on using the special objects that you get by making match-4s, or above. This means that I think the strongest strategy is to allow yourself time to look for large matches in the beginning of a game since the multiplier will last the rest of the level, but to be more open to making lots of small matches at the end of a level. How did your *Blitz* strategies evolve? Do you think very consciously about strategies?

Rasmus: While I've developed a number of strategies over time, I never try to play too consciously; I find it detracts from the fun, and also I feel I perform better when reacting on instinct, rather than going by some plan — you can't really anticipate what the game will throw at you. That being said, there is nothing wrong with internalizing a handful of rules to guide those reactions.

I would theorize that most players develop a surprisingly similar sequence of strategies, starting from the basic *Bejeweled* tricks, like prioritizing matches in the bottom rows to facilitate cascades and identifying match-4s and 5s, while gradually adding more *Blitz*-specific stuff, like making simultaneous moves, and prioritizing quick swaps, going top-down, in order to achieve Blazing Speed mode where swaps occur much faster — for the rest of the game, in fact, if you can keep up a certain pace.

Eventually you learn that one of the single most important rules is never to miss an opportunity for creating a super gem — an L-match, T-match, or 5-match — so when you see one of these shapes, always match the outside gem in, to create a T-shape (Figure 5). Or an L-shape (Figure 6).

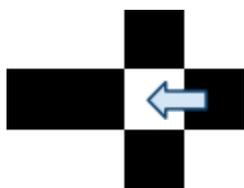


Figure 5: Creating a T-shape



Figure 6: Creating an L-shape

The resulting explosion will almost always cause a new multiplier to appear, so it is extremely important to get these right.

While I don't spend much time deliberately strategizing during play — there simply isn't time for that — I do evaluate after each play session and think about what I should try to do better next time around. You simply have to evolve your reaction patterns over time; it may seem ridiculous, but it actually really feels like you can keep growing with the game.

Indeed, your progress through your *Blitz* “career” can be thought of as a series of realizations about the game's non-obvious strategies. While this may be true of any game, I think it is particularly interesting in the case of *Blitz*, because it also seems to be key to driving its adoption. The realization that “there must be something I'm missing here” drives players back to the game, I think, to uncover new strategies that they might in turn incorporate in their arsenal and use to beat their friends. And absolutely key to that is the 60-second time limit: “Hey, it's only one minute, why shouldn't I be able to do better than you?”

Jesper: Despite appearances, there is a lot of depth in this game. However, I am ambivalent about spending time developing strategies for a game with too much randomness, and I am ambivalent about score resets: I know I get the chance to make my mark again next week, but I worry more about losing the mark I made. That is part of what makes it work week after week on Facebook, but on some level, I feel that it should be possible to have an all-time high-score prominently displayed. Perhaps that makes me old-fashioned, and perhaps it reflects that I have a completion instinct: I want to be finished with a game, and at least theoretically, I prefer games that are predictable. I dislike randomness. However, I am sucked into a game like this anyway, so my tastes are probably out of tune with my theoretical alignment here.

I have been thinking lately that all games create a lack that you want to remedy. That is why you might fear picking up a game — because the world is complete before you pick up the game. This is what games do: they create lack and chaos, partially manageable chaos, out of order. *Blitz* is then meant to be played many, many times. The 1-minute game sessions make it easy to get into the game, easy to leave the game, and easy to return to the game.

I was always philosophically opposed to games that feature large amounts of randomness. Achieving a high score in *Blitz* largely comes down to quickly collecting multipliers at the beginning of a level, which in turn depends on a good starting pattern of jewels. In the beginning I thought this was not fair. On the other hand, randomness had the positive effect that by playing often, I was guaranteed that there would occasionally be games in which I achieved a very high score. I felt that randomness was what kept me coming back to *Blitz*. Sure, I would improve my pattern recognition skills, I would be better at thinking several steps ahead, but I would get high scores in the games where I by sheer luck found several large matches in the beginning, leading to several multipliers, followed by several other large matches. It was in those games that I really felt an improvement. Even if your skills are not improving, randomness guarantees the occasional standout result. Randomness also means that I never feel quite finished with *Blitz*. Thinking about the game, there's always that glimmer of hope, that I will come back and experience an unprecedented setup of jewels that will allow me to reach an equally unprecedented high score. That hope is important if you dislike not having the highest score among your peers.

Do you think of yourself as a completionist or as something else? What do you feel about randomness? And what is the highest score you are aware of?

Rasmus: I did manage to score 670,300 in a single, mad game. That was a rush! Yet with 11 million people playing, you would think that there is probably someone out there who is doing considerably better. I guess we will not know until some kind of worldwide leader board is introduced — if ever. On the other hand, if such a leader board did exist, it might just scare people away from even competing. How would you feel if someone had a score of 2,000,000? I think PopCap probably made a wise decision, commercially, in keeping it between friends.

(Ironically, my next standout high score was 670,250 — achieved several weeks later.)

About randomness: actually, I think there is something quite beautiful about a game design which is so intrinsically dependent on randomness, yet still manages to produce a truly substantial play experience every time. I am endlessly fascinated by the depth on display within this incredibly small design. It is the purest expression of game rules; a system that serves fresh challenges for you each play.

Linear, level-based games have all these problems: while you get to rigidly control what the player experiences and when, it also inherently works against the replay value. You have level designers working for months on stuff that will ultimately be thrown away or glimpsed only briefly by players; you risk that some players will be

frightened off by the steep learning curve, and others will be bored because they've already mastered similar challenges in other games. You cannot afford to iterate too many times over the game mechanics, because that will throw the level design to the wind. With large 3D games, there is simply no practical way to attempt this level of auto-generation. However, with something small, simple and very focused, like *Bejeweled*, it is possible. It allows the game designers to iterate a million times over the mechanics.

But having said that, I would contest the assertion that *Blitz* is truly random. Have you noticed how your chances of success improve more and more, the better moves you are able to pull off? And have you noticed that the end board is almost always much more bountiful ("springy") than the opening one? I think PopCap have found a way to tweak their gem-generating algorithm so that it favors you progressively, corresponding to how much havoc you're able to wreak. Mind you, this is not something I've been able to prove, statistically — yet — it's just a subjective suspicion, albeit supported by the experience of many thousand plays...)

(Throughout our discussion, I've been searching for a term that can communicate the degree of latent match opportunity in a given *Blitz* board. Not readily finding any, I've decided to coin it; from now on, I shall talk of a board's "springiness", meaning high in opportunity. So, a highly "springy" board is full of good matches just waiting to be made, whereas an "unspringy" board is not.)

Jesper: Unless you put all the numbers in a spreadsheet and analyze them, I think it is hard to judge whether a random generator is truly random. I know what you mean about the end board feeling more "springy", but can we rule out that it may be some kind of subjective distortion? I can appreciate randomness as something that gives you variation and gives everybody a chance at getting a high score, and I appreciate how this compares to family board and card games, wherein randomness adds to the social dimension of a game since winning will be more evenly distributed. However, some part of me feels that it is wrong when I restart the game after 10 seconds. This seems to me like a throwback to early video games where I would reset my computer and reload the game sometimes. Isn't this a design flaw on some fundamental level? Can this really be good design?

Rasmus: To clarify, what you are talking about is the dreaded "No More Moves" scenario, which is unfortunately endemic to match-3s. The rules dictate that fresh gems appear at the top of the board as matches are cleared away below; if you continue to "trash the board", i.e. increase its entropy, you get into this situation where, potentially, no more matches can be made. Fortunately, PopCap have taken it upon themselves to mitigate this problem by rigging *Blitz*' random algorithm to ensure that at least one match can be made on the board at any time. Some other

match-3s simply handle this scenario by displaying a large “NO MORE MOVES” sign and jumbling the entire board ... which feels, frankly, like a cop-out.

But the thing is: if you can accept that this is the way these games work, it becomes just another strategy to work into your arsenal. If you get into this chasing-the-automatch cycle, you have clearly messed things up for yourself, and you should have been paying more attention at an earlier point. If you are careful about the matches you make, and remember to shake up the lower part of the board regularly, there is no reason you should end in that scenario. Therefore, I can easily live with that design decision; it actually leans toward skill, which I think is ultimately what *Blitz* is all about.

Jesper: But doesn't it also lean toward time? I am sure we agree that games on some fundamental level should consistently reward skill. Randomness evens out over time, of course, but this in turn means that you have to invest large amounts of time, not to improve your skills, but in order to get lucky with the random generator. Most of all, what I really oppose is the “no more moves” situation as well as the workaround you discussed above. In such cases, I feel that game is wasting my time. I am a completionist, I want a game to be honest with me, and I want to be sure that if I perform poorly, it was my own fault.

On the other hand, it probably depends on how you frame the game. If you see it as a game you can complete on some level (by getting a high score that will stand for years perhaps), then it may feel more unfair than if you see the randomness as something that keeps generating new puzzles for you. Is *Blitz* a sublime and noble battle, mano-a-mano, or is it like a Solitaire variant that keeps creating new interesting problems that you can solve? Randomness has very different meanings in those two ways of framing it.

Rasmus: I can certainly see what you mean. As a gamer, or possibly more likely what we now would term an “ex-gamer”, I feel where you are coming from. However, core games also waste your time, however honest you may think they are. When is the last time you had fun with corridors and crates? And yet every modern FPS is still chock full of that stuff. You wade around in some military base — or dilapidated undersea utopia — where every location looks almost exactly the same. What is the purpose of all this getting from A to B? Yet, as core gamers, we do this for hours on end! Core games are full of downtime. You will get into a heated firefight, and then spend 5 minutes roaming around, trying to find what amounts to the next key card. *Blitz* has no downtime. It is full-on action, all the time, demanding you make the best possible decision every half second or so. In that way, it is probably closer to Geometry Wars than to the original Bejeweled. So no, I do not really feel cheated out of my time, with *Blitz*. Not nearly as much as with most FPS games.

There is one other design mechanic about *Blitz* that I want to discuss, and that is time pressure, which I think is something quite particular to *Blitz*. It is certainly something which has had a controversial life in the casual genre. When I was pitching casual game concepts inside GameTrust, I would always target this intersection of matching and action — I would include time pressures and insist on speed and challenge, and heavy, over-the-top effects fireworks for payback. I felt I had it pretty much worked out. However, we always came up against this stigma, this fixed idea that casual games had to be, above all, relaxing and easy on the brain. That's what the market wanted. Time pressure was bad. Now, the easy and self-aggrandizing route would be to say, these people were clearly wrong, and all it took was *Blitz* to prove it. But the truth is never quite so simple.

Many match-3 games have included time pressure before *Blitz*; even the original *Bejeweled* had a timed mode. All those games included time pressure as a punishment mechanic — if you did not meet a set challenge within the time allotted, you would fail the level. And you'd just have to do it all over again. *Blitz*, on the other hand, offers you a simple contract: you play for one minute; it ends. You never fail. And the pressure is really all up to you. If you relax and just let things pass, it takes you 60 seconds. If you hurry and push yourself, it also takes 60 seconds. Same deal. That is relaxing in itself. Whatever pressure there may be, it all comes from you; it is your personal ambition to see how fast you can go. How fast you can work your mouse — or finger. How fast your brain can process those match patterns.

Jesper: I would argue that the discussion of time pressure really came in two phases: Before casual games became a well-understood concept, it was generally presupposed that time pressure was necessary. PopCap have explained how there initially was skepticism about the inclusion of an un-timed mode in *Bejeweled* (Juul 2007), but once casual games had been established as a genre or game form, the pendulum swung toward the idea that this audience didn't enjoy challenge or time pressure at all. It then took games like *Zuma* (PopCap Games 2004b) and *Diner Dash* (Gamelab 2003) to show that games in that distribution channel could be successful even though (or because) they had time pressure and quickly became very difficult.

The other side of the question is that *Blitz* does not have a single clearly defined win state —perhaps the failure state is failing to set a high score? If you thus fail, the time investment per game is so minimal, and you replay the game so often anyway, that restarting the game does not feel like punishment. Another way of putting it is that there are certain games that you can complete once and for all by beating every level of the game — like in many traditional single player games. In those games, failing a level means losing the time you have invested in playing that level, all because you are working toward the permanent goal of completing the game. *Blitz*

may be more like Solitaire card games or even old arcade games in that the goal is transient: perhaps you are trying to get the high score, but someone else may beat you in turn, and the high score table is reset every week anyway. It also means that since you cannot complete the game, you have to come back. *Blitz* is not a game you can be ever really done with, so it may stay with you for a long period of time. Cheesily: You can check out any time you want, but you can never leave.

In the zone

Rasmus: Another very important design element is the way reward works in *Blitz*, and how it's engineered to gradually nudge you into that heightened state of cognition and dexterity commonly referred to as the "zone". Plenty of games have great reward mechanics, but Bejeweled is somewhat special because the work-vs.-reward ratio is 1:1. With a minimal input, just one swipe, you get a measured, but always worthwhile payback. This makes you feel good about just about every move you make in the game, and extra good whenever you correctly identify a super gem opportunity, or trigger a cascade. Even a series of ordinary 3-swaps give you an increasingly juicier reward, with the climbing pitch of the sound effect. This all builds the mood for speed perfectly, and it helps you get into the zone.

Blitz, as I see it, is a small synaesthetic masterpiece — an ingenious blend of interaction and visual + sound effects. Whenever I am forced to play with the sound off, I miss many audio cues that, for instance, would have let me know that a multiplier has entered the board, or that I am close to achieving speed bonus. I cannot say for certain, but I would theorize that it is nearly impossible to "work yourself into the zone" without the sound cues.

After a period of playing the game intensively, you begin to see things happen ahead of time — it's really quite extraordinary — a couple of turns up ahead. Whereas to begin with, you might be consciously planning a move involving 2 swaps, when you get this much further into the game, your brain appears to actually process complex move patterns involving several sequential swaps, often with lightning-quick assessments of power-up prioritizations, and you find you can make surprisingly clever moves in what seems like "zero-time". This happens on a not quite conscious, but also not entirely animal level; this is why I like to talk of "internalizing" these move patterns — I have no idea how the brain actually functions with this, but I think of it like caching an algorithm in a processor; once the program is in the cache, the CPU can then stream loads of data through, repeating the algorithm very quickly, much faster than when switching between individual algorithms that need to be loaded separately. I find this an endlessly fascinating facet of the game, and I continue to be amazed at how fast, and how far ahead I can begin to "guess". It is clearly not an infallible function, however — I often find myself pulling a swap on instinct that just turns out to be the dumber of two possible moves with the same gem.

What really distinguishes *Blitz*, I think, from its long lineage of match-3 forebears, leading right back to the original *Bejeweled*, is its sense-heightening combination of instinctive pattern recognition, its exciting and satisfying payback (sound and fireworks), and making split-second decisions between multiple matching and scoring opportunities. It is this frenetic brain-bashing and hunting of shapes that makes the game so fun, challenging and rewarding — if the original *Bejeweled* was light exercise for the brain, *Blitz* is a full-on mental workout. This results in a heightened state of alertness, probably nurtured in mammals for the sake of survival; it excites you, makes you sharper — but is also, to some extent, associated with stress. The game, at the same time, lets you reward yourself with dopamine, the brain's own joy drug. So while it is incredibly exciting and rewarding, we also have the makings of a vicious circle — addiction, and stress. This is why *Blitz* is probably not a good idea for a soothing nightcap.

On the other hand, *Blitz* is really the perfect arcade game. It is deliberately short, endlessly addictive, and lends itself perfectly to high score competition because of its unforgiving leaning toward skill — physically, and mentally.

Jesper: We theorists like to refer to the concept of Flow (Csikszentmihalyi 1990) to describe the feeling of being “in the zone”. As I read Csikszentmihalyi though, he does not discuss the issue of juiciness or sounds and visual feedback; he just talks about “clear feedback”. I think you are right that there is something very specific about sound that influences us in a subconscious way.

Burnout

Jesper: I will get really into a game like *Blitz*, and then one day, the wonder will be gone. I cease to care. I will still believe (perhaps erroneously) that I might get a high score if I put the hours in it, but the game just doesn't give me the kind of “quick hit” positive experience that I am looking for — and I go back to my regular work. Interestingly, I have spent the last few years making my writing process closer to game playing: I make sure to break down my writing into dozens of little tasks that I can then tick off from the to-do list. Fix the language in the first sentence; deal with the flow between section 2 and 3; find backup for the argument in the final section and so on. This means that if I want that quick hit of accomplishment, I can be surer of experiencing it if I work than if I play a small procrastination-oriented game like *Blitz*. I will sometimes play a game of *Blitz* to procrastinate, only to be disappointed and go back to my actual work where I can be sure to feel good about myself. You might say that I managed to turn my actual work into a satisfying game.

Returning to randomness, it has a large bearing on the question of burning out and coming back. After playing *Blitz* for a while, the randomness made me feel burned out even though I kept coming back. I ceased to feel any responsibility for what happened; I was simply waiting for the appearance of a fortuitous pattern on the game board. If nothing great had happened within the first 10 seconds, I would restart the game. Randomness also became an excuse for me: if I for several seconds could not identify any match on the board, this obviously, I would reason, was due to bad luck. The idea of randomness became my way of avoiding further reconsideration of how I was playing. In his article *The Art of Failure* (Gladwell 2000), Malcolm Gladwell recounts the story of how Jana Novotna squandered a sizeable lead over Steffi Graf at the 1993 Wimbledon finale. The problem, says Gladwell, was not that Novotna panicked, but that she choked: she started to think consciously about the basic actions in tennis — serving, returning the ball. Choking is when you start becoming conscious of the task that you can actually do intuitively, and therefore end up performing much worse than you are actually capable of. I had a period like this with *Blitz*: I could identify the valuable patterns in the game, but when things were going too well, I started to think about it. I failed to cash in on the opportunities presented to me. I choked.

I still desperately wanted to be on top of the list, but I had lost faith. I would play the game hurriedly, distracted, while listening to podcasts about science.

And then one day, it all changes. I come back to *Blitz* and see new things, I do well, I enjoy it, I am in the zone, it is once again a beautiful game.

How do you feel about inevitably burning out on *Blitz*, assuming that you will burn out on it? Can you see it coming?

Rasmus: Oh, sure. It is kind of happening already; the highs get fewer and farther between, and the mountain to climb keeps getting higher for each score reset. Weirdly, I find that I am having more trouble than ever before reaching those high scores, and experiencing those wild highs. Kind of like any addiction, really. What is interesting about that is that it seems that it is exactly when you stop frantically inventing new strategies and just sort of try to fall back on a tried and tested play style, that you start performing poorly.

Then, suddenly, you get another one of those one-in-a-thousand games where everything just explodes, the points rack up, and you are in the zone. And the hunt is back on. Incredibly, I find I just keep returning to *Blitz* repeatedly and again — “Just another go!” I guess it’s because it’s just so damn easy; just fire up your browser and bam, you can be into the game in a matter of seconds. Or, on the road, on the iPhone. It’s always right at hand. You do not have to worry about making it

to a save-point or the end of the level within the lunch break; it is just so accessible, it is truly one of the few games that fit into a busy lifestyle. It is a lot like an arcade experience, actually. It has that immediacy.

On the flip side of that, I have found that this has caused me to more carefully weigh for and against when I make decisions to play other games. I have only relatively short intervals of free time to invest in playing games — ironic, I suppose, with a job like this — sometimes, not much more than thirty minutes. So I regularly find myself thinking, “can I really hope to make it to the end of this level before I have to turn the console off? Do I really want to wait for this massive game to load anyway?” When you have such short periods of time to play, it naturally works against “core” game experiences, and otherwise relatively insignificant wait times take on disproportionately daunting durations. Quite a few expensive console games are languishing on my shelf because of this.

Of course, PopCap also keeps adding new twists to the formula, which helps keep the game interesting. Perhaps the biggest change, not to the gameplay as such, but to your overall rhythm of playing of the game, is the Boosts feature where you gradually amass coins that you can use to buy “boosts”, powerups. I’ll always want to maximize the effect of the boosts I use, and so I will unfailingly pick 3 really effective — and thus really expensive — ones, and play as focused as I can for the 3 rounds they last, to really make them count. This of course then has the flip-side effect of demanding lots of additional pedestrian “pick-up” play, simply to re-accrue the coins spent. Which, in turn, means that you start to consciously plan when to spend your coins — at which point during the day am I most likely to be focused and sharp? And perhaps, more worryingly, when will I be tired and just going through the motions? I think this may end up hurting the game, as those less-important games become tedious “work” to be undertaken merely so that you can have fun “later”. It promotes a cynical mindset that I think is fundamentally out of tune with the intuitive, adaptive strategies that drive *Blitz*. It also kind of reeks of monetization — 100 bucks says PopCap will introduce micro transactions one of these days, so players can skip the “boring games” and plunk down, say \$1 for 50,000 *Blitz* coins. This might actually be timed to coincide with Facebook’s introduction of its Credits currency. (It was, during this discussion — in spring 2010).

I have always found the idea of introducing paid power-ups to be a somewhat problematic monetization strategy. The notion that you can pay to get ahead of your friends is a tricky one, and in the case of *Blitz* is only tempered by the fact that you will still have to be sharp as hell, and lucky to boot — there is no guarantee that the boosts you buy will get you a record score. Still, I think it might fundamentally undermine the sportsmanship that characterizes friendly competition. What will you think about someone at the top of your scoreboard who bought his or her way past 1 million points?

Jesper: That they have too much money on their hands? To me, microtransactions and virtual item trades say something fundamental about users that we tend to forget: people's lives change over time. *Blitz* may be successful due to both its short game sessions and due to the predictability of the length of a game session. In "serious" console games, it is often unclear how long a game session you are committing yourself to. *Blitz* is more like *Guitar Hero* in that you know the time commitment ahead of time, which makes it much easier put in some game playing in a crowded schedule. You could generalize that young people tend to have little money but lots of time, while older people with jobs and kids have more money but less time. Thus, microtransactions may be a way for the older generation to achieve parity?

Rasmus: I suppose so. Now that micropayment has actually been added to *Blitz*, I cannot truthfully say that I do not feel tempted. Damn those kids.

Jesper: Damn them.

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*I guess sometimes
the best decision is
not to play.*

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JOSE ZAGAL

MANHUNT

Manhunt is a videogame developed by Rockstar North and originally released for the Playstation2 platform in 2003. In the game, the player controls James Earl Cash, a death row criminal who is rescued from his execution and coerced into starring in his kidnapper's snuff film productions¹³⁹. "The Director", who witnesses and records Cash's carnage through a network of security cameras, goads, threatens and provides instructions via an earpiece worn by Cash. The player controls Cash in a 3rd-person perspective and the gameplay is best described as requiring both elements of action and stealth. Cash is outnumbered and must carefully, and quietly, make his way through his dilapidated surroundings in order to surprise and execute his victims using a variety of items including plastic bags, shards of glass, bats, bladed items, and firearms.

Manhunt created a controversy when it was released due to the graphic nature of the violence it depicted. This led to the game being banned in a few countries. In the United States, the game received an "M" rating from the ESRB, recommending the game as unsuitable for people under the age of 17. The most notorious element of violence in the game is the execution system. Executions in Manhunt are perhaps the most effective way to eliminate opponents and are required in order to progress in the game. However, the player decides how brutal an execution will be. Let's say Cash sneaks up behind a gang member with a plastic bag. Pressing the attack button will result in Cash yanking the bag over the victim's head and suffocating him. If the player holds down the button for a few seconds, the execution is more violent and Cash might punch the victim in the face in addition to suffocating him. The third, and most brutal, type of execution is carried out by holding down the attack button even longer. Thus, by deciding how long to press the attack button for, the player determines the degree of brutality of the execution.

The premise and violence in Manhunt are undeniably gory and brutal. However, from an ethical perspective, this game isn't interesting due to the violence of the executions. Rather, it is interesting because of the position the game places the player in. As mentioned, the brutality of an execution is a choice made by the player. By forcing the player to question and evaluate his actions and motivations for how to play the game, the player is forced to confront the act of being a successful player as a moral dilemma itself. Should I, the player, choose to execute Cash's opponents in the most brutal way possible? How far are you willing to go, as a player, in carrying out the executions?

Manhunt's player-based (rather than character-based) moral dilemma is made all the more intense through the use of a USB headset. Playing the game using the headset allows you to use your voice to distract enemies in the game.¹⁴⁰ It also allows you to hear the Director's instructions directly via the earpiece. Both elements effectively shorten the distance between the player and the grotesque world of Manhunt. The microphone does this by allowing the player a more direct form of agency while the headset heightens the tension by channeling the Director's wishes and desires directly to your ear. In this way, The Director assumes the role of the "evil conscience". You hear him inside your head. His voice goads, taunts, and cheers you on when you cave in to his desires. There is nothing more sickening and disturbing than hearing the Director cackle maniacally as Cash murders a gang member. As might be expected, the Director derives more pleasure from the more gruesome executions.

However, what context is the player afforded when deciding if he should execute gruesome executions instead of "regular" ones? The choice is obvious from the perspective of the narrative. Cash is a convicted death row criminal. Thus, it is not unreasonable for the player to believe that, when placed in a kill or be killed situation, Cash would opt for survival. The Director wants Cash to be as brutal as possible. His illegal snuff-film operation demands it. Cash, however, has no real motivation to perform the most brutal types of execution. The Director is the antagonist, what reason would Cash have to want help him? Also, executions are risky to execute since, while the player keeps the attack button pressed, he is exposed and vulnerable to attack. We might expect Cash to reason that an ethical solution to his predicament might be to kill as few enemies as possible and to do so in the least gruesome way (thus not allowing himself to further the Director's ends). The player is thus presented with a situation in which, narratively, there is no reason or motivation to opt for greater brutality in executions. Role-playing Cash does not exculpate the player from Cash's actions .

From a game design perspective, the context for deciding the dilemma is the opposite. In a macabre twist, the player is awarded extra points for completing more gruesome executions. Within the context of the game, points serve no function or purpose. In the game, nobody knows or cares that you, the player, got more points. Their only purpose seems to be to tempt the player. To force the player to question how much he really values what is essentially a meaningless measure of achievement. How far would you go for a few points more? As a game player, how do you value your competitiveness and achievements as a player (get the most points) versus doing the right thing in the context of the narrative? What does it mean to be a good player? Therein lies the true moral dilemma of Manhunt.

Personally, I found the experience of playing Manhunt disturbing. As a person who loves to play games, and who loves to talk about my achievements playing games, I was shocked to realize how this game was essentially playing with my mind. It

was preying on my competitive instincts. Yes, I want to get a 100% completion. Yes, I want to get a higher and better score than my friends. Yes, I want to unlock all of the extra content. But playing Manhunt, all of a sudden, I didn't want to do that. I wanted to know how to make my way through the game doing the least amount of damage possible. The Director's voice is what made the difference: he creeped me out. Could I live with myself knowing that I had made that sick, evil, and twisted person happy? I also realized how this game serves as a commentary on the role and use of violence in videogames. While videogame critics often bemoan the senselessness and recklessness of violence in games, most games aren't able to effectively connect that which happens in the game with your feelings and experience outside of the game. Sure, I've killed my share of pixellated enemies, but I never cared. It wasn't really violence. The true meaning of violence is driven home when it affects you personally. Of all the games I've played, Manhunt is probably the best example of this. It's also a telling commentary that this is the first great game I feel proud to say I am unwilling, rather than unable, to finish. I guess sometimes the best decision is not to play.

ENDNOTES

140 A snuff film is a film that depicts the actual death or murder of a person or persons without the aid of special effects that is produced, perpetrated, and distributed solely for the purpose of profit.

141 Or, conversely, draw unwanted attention to Cash.

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*I posit that all platforms
affect both a game's design
and play experience.*

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SAM ROBERTS

POOL OF RADIANCE

Pool of Radiance is a computer role playing game released by Strategic Simulations, Inc. It is the first of SSI's 'Gold Box' games, and the first officially licensed Advanced Dungeons and Dragons computer product. It was designed by a team of game designers from the publisher of AD&D, TSR, and coded by the SSI Special Projects team. It was eventually released on the Commodore 64, Macintosh, IBM, and Nintendo, and the game designers published an adventure module of the same material for AD&D. It won the Origins award for 'Best Science Fiction or Fantasy Computer Game of 1988', and was eventually novelized, had both remakes and sequels, and remains immensely popular. Despite being available for so many formats and platforms, Pool of Radiance was not designed specifically for any of them, and the constraints and affordances of each platform deeply shape the experience of playing the game in that format.

Pool of Radiance and its successors, the SSI Gold Box games, are all based on the same adaptation of the 1st edition Advanced Dungeons and Dragons ruleset. It is a simplified adaptation, but effective, and unlike anything else available at the time. It lifted ideas from the best crpgs the programmers and designers had played, and fit them all around the AD&D ruleset, which was the forbear of almost all of those products.

Pool of Radiance built to follow the format of table-top roleplaying, and a player starts by creating 6 characters. Players navigate the world by moving in a first person perspective through square grid maps, presented in the upper left portion of the screen, while character statistics are displayed in the upper right, and the bottom is reserved for text describing surroundings or encounters, and a set of options allowing you to encamp, examine characters and inventories, search, or other dungeon crawling options. When the player encounters something, a sprite picture appears in the upper left, and the bottom part of the screen presents options for interaction, along with text describing the encounter. If the player enters combat, the view changes to an overhead 2d battle-map, where turn-based tactical combat occurs. As each monster and player takes a turn every round, battles with large numbers of monsters can take an extraordinary amount of time, this is a very accurate depiction of the tabletop Dungeons and Dragons experience.

Pool of Radiance is set in the city of Phlan, a part of the official AD&D Forgotten Realms world, and specifically a part of the world set aside by TSR for development in computer games. When you start a new game, you can create anywhere from one to six characters, from the stock dungeons and dragons class archetypes – cleric, fighter, thief, and wizard. Multiclass is available, too, and with 5 races, there are an abundance of options for the player. Though, as we'll see in a moment, most of those options are bunk.

From there, the player sets out into the City of Phlan, an ancient trading city and stronghold that was destroyed years before. A group of former adventurers has seized a stronghold in the city, and has put out a call for adventurers to help reclaim the rest of Phlan. Your characters are such adventurers, and you take commissions from the city council, explore areas of the city and the surrounding region, and fights lots of monsters for loot and experience.

Pool of Radiance tells the story of a small cabal of humans and demi-humans who are trying to reclaim a once-proud, now abandoned city from the monsters that inhabit it. The player takes commissions from the city clerk who directs him to different adventures in the surrounding regions, and slowly exposes the story of Tyranthraxus, the demon who is controlling the monsters of the city. The player may explore any part of the city they wish at almost any time, but will only receive commissions in a specific order, and the area's difficulty scales based on that order. So though free exploring is encouraged, too much exploration means you get deaded.

An interesting side note: though some documentation claims Pool of Radiance is an adaptation of the 2nd edition AD&D ruleset, the game is clearly based on the 1st edition rules. This results in some generally unbalanced aspects of the classes and races – none more clear than the rules for Strength and exceptional Strength. I won't dive into it here, but essentially, to have a high or maximum strength character, you are forced to play a male, and likely a human. Power gamers gnash their teeth in fury, I know. This is primarily due to the game being, at its heart, designed for tabletop play. The tabletop environment puts a great premium on randomness and 'realism,' both very important factors in classic wargaming.

These quirks are common throughout the game, and are the natural product of the restrictions and affordances of the tabletop platform. The play experience of Pool of Radiance is shaped by these platform affordances, but not just the affordances and restrictions of tabletop gaming. In a much more direct way, Pool of Radiance is shaped by the distinct hardware platforms it has been presented on over the years.

Pool of Radiance is a classic rpg in many ways, but because of the fundamentals of D&D adventure design, the city and map are always technically wide open, and the small details of life you can come across add greatly to the atmosphere. Monsters increase in difficulty based on the area you have entered, so though you can take your adventuring party wherever you wish, many areas are by default closed off. And you can choose which commissions to accept and which to ignore. Only a few certain missions are required to navigate the story, and with a strong enough force, you could bulldoze your way through the monsters in your way and destroy the game's boss without ever completing a commission. Years later, such flexibility in console rpgs will lead to the mighty Level 1 complete, a task whereby you harness your obsession to defeat a crpg using the most pathetic versions possible of your party. In Pool of Radiance you most likely would still get destroyed, as a single attack from Tyranthraxus, under the best of circumstances, can kill half your party.

An abundance of secret passwords to discover, along with passages, routes and other items, open up options for players, who can parley and run from fights, use stealth and disguise from time to time, and can approach the game in many different ways. Proper application of running and intelligent use of the magic items you can find, can minimize the need for fighting (and the acquisition of loot and exp) or the experienced dungeon delver can go room to room, kicking doors down. With what is in reality a small set of options, the game does provide the player with an opportunity to establish a personality and identity for their characters inside the world of Phlan. The reasonably good writing of the major non-player characters reinforces this, though much of it is recorded in a physical adventurer's journal you must consult as you play.

I first played this game in the late 80's, on the family Macintosh in my parent's basement. I remember clearly hours of playing the game, which I felt was more engrossing and addictive by far than other games I had played. I was amazed that I could play Dungeons and Dragons without waiting for my no-good bum friends to come over. But if they did come over, we could still play the game together, each making our own characters and adventuring together through the world of Phlan.

As a first step of research on this project, I determined to play the game as I had as a child, and with the assistance of my friend Tracy Fullerton, who had both an old Mac, and the game disks, we setup and dived in to the game for an afternoon of adventure.

Tracy, too, had fond memories of the game, and much similar to mine – skipping grad school homework and staying up late to play with a friend, as they adventured together. Though we both shared memories of the slowness of the interface – battles against many small monsters, which occur several times in the game, are

only dangerous at low levels, but can often take up to an hour of real time, because of the speed of the game engine on the hardware. Tracy recounted often setting the game to autobattle and going out for pizza when such situations occurred.

So we ordered pizza and went to work. The game was in many ways much as I remember it, but though we had forewarned ourselves, we were completely unprepared for the restrictions of the platform, the slowness of the game, and the often bizarre interface choices. Perhaps because no one had offered icon selection or assemble character portraits before, some of the interface choices just stunk. Lots of having to cycle through whole sets again if you missed what you were looking for. It took a heap of time getting our characters made, and purchasing equipment was no simple matter. Finally after what seemed a frustrating amount of time we were prepared for battle and had a first commission from the Town Clerk. We also had begun to form micro personalities for our characters and were begin to invest in them, possibly because we spent so much time with them in the creation process.

We set out into the slums, and marked several first small successes. The party was balanced, I remembered the location of a secret treasure stash, and we were accomplishing our mission. Then we met our first fight against a horde of monsters. It took 45 minutes for them to finish slaying us. I asked if we should load up our last save, but at that point our endurance and will to live was completely drained. I bid Tracy a good evening, and departed.

Disappointed in some ways, I went home and dug out my old IBM copy of the game, purchased in the early nineties when I got my first windows PC. Pool of Radiance actually runs in DOS, and there are many quality dos emulators floating in the world. Quickly I was playing the game myself at home.

Emulated DOS on a modern machine is FAST. Way, way fast. In the same few hours I had played with Tracy, I was handily into the game, probably at what might be called the halfway point, rather than ignominiously dead in the Slums pursuing the first mission.

I was beginning to interact with Porphys Cadorna, the sneaky councilman in the game who ends up betraying the characters to the mighty evil boss of the fallen city. However, my party was faceless automata of killing, and I got little rise out of Cadorna attempting to cheat and use them, since they were running around working the system and being used mercilessly by me to soak up exp and loot. This is also the point in the game where you can do a lot of different, interesting missions to build strength and settle the region. I simply pushed on ahead and dealt death and destruction to my foes, enjoying the Cadorna storyline to its fullest and ignoring everything else the game offered to me.

My personal experience playing the game on each platform was dictated it seemed, in part, by platform, but also in part by style. I had approached the game from the standpoint of a role-player the first time, and garnered enjoyment, but eventually was halted by the systems limitations, technological and design. In the DOS emulator, I approached the game to succeed, and enjoyed doing so, but found an inability to pursue the things I was interested in past the limitations of the game, and found the speed of play offered little personal investment for me in the characters and their accomplishments.

The first experience became a story about failure, about overwhelming odds, and about the good hearts of our band of adventurers. The second experience was a story about greed and power, and a lesson in might making right. Both of these stories rose from the same text, but the lenses brought to the game by the platform and by myself, the player, modified that text.

In ‘Racing the Beam’, Ian Bogost and Nick Monfort examine the Atari VCS as a video game platform, and discuss in great detail how the affordances and restrictions of that hardware platform constrained and shaped development of software for the console. Pool of Radiance is a game that is shaped by its original platform (table-top roleplaying), but I have found that the experience of playing the game was as shaped by the platform the game was presented on, and that those constraints and affordances informed my play experiences as much if not more than they shaped the game’s design. Secondly, though Monfort and Bogost are dealing specifically with computational hardware platforms, I posit that all platforms (computational, non-computational, hardware, software, etc.) affect both a game’s design and play experience.

John Barthes writes “Greek tragedy, its texts being woven from words with double meanings that each character understands unilaterally (this perpetual misunderstanding is exactly the “tragic”); there is, however, someone who understands each word in its duplicity and who, in addition, hears the very deafness of the characters speaking in front of him—this someone being precisely the reader (or here the listener). Thus is revealed the total existence of writing: a text is made of multiple writings, drawn from many cultures and entering into mutual relations of dialogue, parody, contestation, but there is one place where this multiplicity is focused and that place is the reader, not, as was hitherto said, the author.”

Barthes speaks here of the reader of a text being the true author that text – that the person who wrote it is merely a scriptor, setting the words onto paper. The text becomes alive and obtains meaning when it is read, and what that meaning is, is dictated solely by the reader, and their personal perceptions, ideas, and prejudices. In his essay *S/Z*, Barthes describes these as lenses they bring to viewing the text.

I have clear memories of the difficulty of the game, which can catch you unawares, and particularly that certain areas with randomly generated foes became horrific later, because at high levels there would be dozens and dozens of monsters on screen. This was a problem inasmuch as a combat against that many monsters could take an hour of playtime, and much of it passively watching your characters get attacked. I also remember that achieving success in the game was deeply pleasurable – the time I invested in each achievement, in each character level and magic item made them feel solid, important rewards. And yet viewed through the lens of my most resent playthrough, those items had become unimportant commodities, cash equivalents and excess, to be swapped out for the next better item I could find. Both experiences became texts that I authored, by focusing my attention on certain parts of the game, and by taking them through the lens of their individual platforms.

In a very real way, games are such texts – all meaning of the experience arises from how the user views and approaches the content and rules laid out by the designer – a player approaching from the idea of building the strongest combat party will play a group of only men, to better improve his chances of combat might; whereas, a player approaching the game from the idea of a heroic adventure may want an exactly even split, for a more balanced set of characters. These choices affect how we view the game and its meaning, and how we read the text and situations the game presents us with. Each moment of the game, if often not containing a moment of choice, is always being affected by the choices we have made to reach it, the characters we have presented to this world, and the story we are building in it.

The lens of the Macintosh affected my personal reading by forcing me to spend more time creating and deciding what and who my characters should be, and how they were to present themselves to the world, and drew attention to the lack of such a lens when I approached the DOS playthrough from a hack and slash perspective. The text changed as I read through those lenses, and the lenses of my personal perspective on the ideas therein.

I became very interested in the idea of the game as a look at a fallen, ruined, and hopeless society, and an examination of the personal greed and ambition that often destroys efforts to revive it. I wanted to spend more time with Cadorna, and more time in a place where the base facts of life are in constant threat of destruction by overwhelming odds.

So I dug up a copy of Ruins of Adventure, the TSR published adventure for AD&D written by the Pool of Radiance development team and based on the same material. I run a semi-regular game with a group of friends, and thought that if platform is

such an important lens for building and examining the meaning and story of a game, I would select the platform that I knew best suited to such discursion, and the one with the most possibilities, tabletop role-playing.

Quickly, I was staying up til all hours, preparing the new campaign for our session, and adapting the old adventure to the modern system we play with. I often found myself ignoring writing this very essay to instead look at a part of the adventure, or to tweak some of the class and system choices I was making for the adventure to better suit the mood and ideas of the game I wanted to run. I truly fleshed out Cadorna, adding layers of villainy and plots to what already exists in the adventure.

We have begun the quest, and the players are greatly enjoying exploring the city of Phester (as I have decided to call it). They have become deeply interested in the black market, and have interacted with a group of thieves within the city walls. They also have taken great pleasure in kicking down doors and obtaining loot. These are often the types of games we run, where kicking doors, chopping heads, and divvying loot is the name of the game. As such I shouldn't be surprised that they have not yet risen to the Cadorna bait. It's early yet, though, and the players are rising to the occasion of delving into a world of despair and chicanery.

Surprisingly, though they get the mood, they have not delved deeply into the history of the city, or the details of its life and citizens. These things are rich in the computer versions, possibly because if you spend time with the adventurer's journal at all, they are clearly communicated and layered into the other text of the game.

If I often run hack and slash adventures, is it any wonder that that is how my players are choosing to read this new text with which I have presented them? Is it any surprise that the players are taking immediately to the atmosphere, since I have laid it on so heavily in the early going? The players of my game are bringing lenses to bear based on their prior experience with me, and based on how the text of the game is being spoken and presented. If I want them to get entangled with Cadorna, I need to present this clear position as the speaker that these people are duplicitous and not to be trusted, while positioning the ensuing reactions as highly desirable to the players. If I often ran such games, I would have no need, because the players would already have that information about the speaker.

Furthermore, as the readers of the text and authors of their own experience, each player brings their own desires for game style and story to the table. Jim always desires forthright heroic adventure, and leaps at opportunities for heroism and great deeds, often overlooking opportunities for dealing and double dealing with npcs. Clark, on the other hand will always try to cut a deal or backstab an npc. Their lenses, and how they understand them and bring them to the table will result in the path the game takes.

Pool of Radiance's design and rule set are well suited to this style of experience. Though, like almost all crpgs the gameplay is focused on combat, the variety of roles in combat, quests and characters in the game provide players a plethora of approaches and character personalities to enter the world with. From there, simple and effective design choices – the continuing personality of the environment, the procedurally increasing difficulty based on party power, the immensity and scale of the world compared to the players ability to interact within it – all these heighten the idea of an abandoned, threatening environment, one in which the players face overwhelming odds. This is reinforced by the starkness and difficulty of the 1st edition Advanced Dungeons and Dragons rule set – a game renowned for mercilessly killing players at all opportunities. And the confluence of these elements puts this story emphasis forward, while allowing for endless interpretations, stories, and experiences within. The design contains themes and statements to be interpreted, without remaining hidebound to a certain style or path of play for the player, understanding that what arises from the game will be personal for each player, and actively trying to assist that rather than force its own commandments.

However, the additional lens of platform limits the game. The inherent rule set and design of the experience still exists, but the platform adds additional rules and lenses. Playing on the Macintosh inhibited the application of some lenses to the game, limiting the experience. Because of the sheer difficulty and time consuming nature of navigating the world on that platform, certain approaches and styles of play were limited. I was unable to bring the dungeon grinding lens, or the overwhelming badass lens to apply. But it naturally enhanced lenses dealing with my characters, and was definitely far better suited to play with multiple people than the emulated DOS version.

The tabletop version has by far the most different rule set, and is the most open and adaptable experience, though the platform does place many natural restrictions on play. The speed of play at the table is as slow or slower than even on the Macintosh, the platform requires multiple players, and the learning curve of the rule set is much higher. Also, computers role dice and do math for you. You never need a sharpened pencil (except for mapping, of course) – and if you really screw up, you can load your last save game.

And this, perhaps, explains the joy that I once felt at playing Pool of Radiance on my family Macintosh in the basement, alone for hours at a single fight, or with friends cackling about the relative merits of our characters and the entertainingly foul things we were doing to our foes. Before I had played this game on a computer, I had never engaged in a similar game experience except by tabletop – I brought the lens of tabletop gaming to the new platform. The speed was on par, and the game had many advantages for me personally over tabletop – for one thing, I could

play it alone, or with one other friend – something very tough to do with tabletop gaming, and groups of three or more were not always the easiest to find as a child, particularly for something as unwholesomely nerdy as D&D.

Furthermore, when viewing this same platform again through the lens of having played modern crpgs on modern machines, with modern interface design, all Tracy and I could notice was the speed of the game and the lunacy of some of its interface choices. When I played the game on my personal machine in DOS, coming from the experience of the Macintosh, all I could see was the speed, and the joy of power crawling my way through the dungeons. And finally returning to good old tabletop, I wanted to explore most deeply the parts of the game that the computer limited, true interaction with npcs, and an emergent betrayal plot.

These urges are perhaps natural. As Bogost and Monfort note, the game is naturally shaped by the platform it is designed for – and Pool of Radiance was originally designed for the tabletop. It is designed to make best use of the affordances and restrictions of playing a game around a table with friends, and feels occasionally clunky when forced to be experienced through another platform. To take a game effectively to multiple platforms, this suggests a need to redesign from the top, taking into account a new set of affordances and restrictions based on the game's new platform.

Pool of Radiance, and games in general, give naturally to Barthes' view on readers authoring texts. And just as a platform becomes a major component of how the player views the text, not only in the current experience, but also by shaping future lenses for the player if they approach the text again. Pool of Radiance takes natural advantage of this, by creating a malleable, provocative text through its rules, events, characters, and environments.

“

*Spaces and places in
videogames are developed
through action.*

”

BOBBY SCHWEIZER

MAKING AND UNMAKING PLACE IN *THE DARKNESS*

Introduction

The 2007 Xbox 360 and Playstation 3 title *The Darkness*, developed by Starbreeze Studios and published by 2K Games, is based on a comic of the same name that takes place in modern-day New York City. Its depiction of New York City is unique in the landscape of modern games that try to construct lifelike cities. The game reproduces a relatively small space but extends it in surprising ways. In this essay, I argue that the use of space in *The Darkness* plays on expectations of familiar and unfamiliar places in order to physicalize the protagonist's journey through the world of New York and the mythical Hell into which he is cast.

The digitally rendered city has become a staple of games and designers have developed ever more vast urban environments that live and breathe. The *Grand Theft Auto* series is perhaps the most well known example of the simulated city. *Grand Theft Auto III*'s Liberty City defined the "open world" city, representing New York City as not merely a collection of locations but a whole environment traversable by the player. Rockstar Games' *Grand Theft Auto: Vice City* expanded upon the open world with their rendering of 1980s Miami, while *San Andreas* tackled putting together three cities—Los Angeles, San Francisco, and Las Vegas—connected by freeways and rural areas. Seven years later, Rockstar turned back to Liberty City and created one of the most highly detailed single player worlds in *Grand Theft Auto IV*.

The *Grand Theft Auto* city—and the many games it inspired—work within a scale model of the real, eschewing one-to-one mapping for iconic. This design methodology privileges the recreation of the whole, but rarely do individuals experience the city in totality. People tend to live highly localized experiences. A sense of place is developed through repetition: the places we spend the most time and the paths we commonly traverse shape our understanding of the world.¹⁴¹

Given the videogame's penchant for exploration and adventure, however, it is not surprising that it is more common to see games that take place in expansive worlds. It is much more difficult to transform a familiar space into a place of adventure because we have specific understandings of what these kinds of tangible places

offer.¹⁴² We can identify their rules, patterns, dynamics, and construction because of our everyday experience.¹⁴³ This is accomplished in *The Darkness* by contrasting the player's expectations of the familiar and unfamiliar in the protagonist's lived experience.

What is Place?

If space is the plane of existence, then place is the plane of experience. Experience, according to Tuan, is “a cover-all term for the various modes through which a person knows and constructs a reality.”¹⁴⁴ As such, there is no quantifiable way to judge something's “placeness.” Instead, we must consider place from numerous perspectives. Tuan identifies a range of ways we experience different kinds of space. We construct place through our physical body, relationships with others, cultural values, mobility, architecture, time, attachment, and even our imagination.¹⁴⁵

Space and place are, of course, not stable binary concepts. Anthropologist Marc Augé uses the term “non-place” to describe two realities: “spaces formed in relation to certain ends (transport, transit, commerce, leisure), and the relations that individuals have with these spaces.”¹⁴⁶ Places involve dwelling, crossroads, and the traveler, while non-places involve transit, interchange, and passengers.¹⁴⁷ We spend time in non-places but develop little attachment, seeing them as functional entities. Augé's classic example of non-place is the metro/subway. It is a transportation hub better suited to a functional or geometrical description¹⁴⁸ and a “common point in an invariable series.”¹⁴⁹ Yet, we feel the need to transform non-places into places. Individuals develop a history with stations through use, but this is merely the shared identity of non-place.¹⁵⁰ After all, the metonymic phrase “this is my stop” is negated when hundreds of other passengers disembark simultaneously.

Making Place in Games

Spaces and places in videogames are developed through action—the player enacting the mechanics and rules that define what they can, cannot, should, and will do.¹⁵¹ Playing as a character standing in the middle of a highly detailed city is meaningless unless involved in action. The experience of place for Spider-Man in Manhattan will be drastically different from Niko Bellic in Liberty City. Spider-Man swings and jumps from building to building while Niko Bellic commutes by foot, subway, and automobile. Spider-Man rescues people in distress, fights with thugs and supervillains, and ensnares criminals in his web. Niko, on the other hand, escorts people in cars, fetches and transports items, steals vehicles, and engages in shoot-outs and murder. Regardless of tone, plot, or technical accomplishments, the player's sense of place will be affected by what they do in the game over time.¹⁵²

Two definitions—one from Yi-Fu Tuan, the other from Michel de Certeau—inform our understanding of space and place. While it may seem that each writer’s explanation of the pairing are at odds, they actually complement each other. First, Tuan describes *place as space transformed* by shared and negotiated cultural understandings and specific action, whereas space is understood as the three dimensional structure of the world which contains objects and general actions.¹⁵³ On the other hand, de Certeau describes place as location, and space as the trajectories of velocity and time.¹⁵⁴ In de Certeau’s pairing, a place cannot coexist with any other place because it occupies a physical spot in the world, while a space is the movement afforded by that place. Combining these two definitions, space is first transformed into physical location, then practiced experience, and finally lived place.

For the purpose of clarity, this essay uses Tuan’s definition as our understanding of “place,” though de Certeau’s definitions have been adapted to complement Tuan’s pairing. Place is thought of as that which is familiar, secure, understood, valued, and lived. However, even if the determination of placeness lies in the individual, it is possible to employ techniques that encourage attachment. Strong narrative environments resonate with people’s imaginations because of the imaginative capital contained in the visual grammar of iconographic places.¹⁵⁵ It involves constructing places that are like other places, relying on allusions to create the familiar. Building a city is no simple task—a multitude of factors need to be considered. Designers cannot merely code a landscape with signs and expect meaning to emerge.¹⁵⁶ The level and world designers who work on a game do not construct buildings and streets—they create experiences.¹⁵⁷

Additionally, place can be made in videogames by referring to the familiar structures of the real world. These places refer to locations where we have a natural tendency to develop attachments. Examples include our homes, the houses of friends and family, “Third Places” like coffee shops and bars, and parks and playgrounds.¹⁵⁸ Other referents include places we have not been to in person, but exist in the popular imagination. These might include landmarks (famous buildings, statues, landscape features), common architectural structures (bridges, churches, graveyards), and even mythical/fictional spaces only perceived by our imagination (Heaven, the land of Oz, other game worlds).

Introducing the Game

To understand how *The Darkness* plays with familiar and unfamiliar spaces, one must understand the basic mechanics and plot of the game. The city of The Darkness is approached through the everyday lived experience of the protagonist, Jackie Estacado. At the game’s opening, Jackie, a young mafia gangster who

grew up in an orphanage, is celebrating his 21st birthday. He, however, is unaware that his “Uncle Paulie” (who is not a blood relative but rather the head of a mafia family) has ordered his assassination. After a failed attempt, Jackie believes that his Uncle wants him dead because he’s a nuisance. Yet both he and the player quickly learn that it is because at midnight on his 21st birthday he becomes possessed by the Darkness, a demon curse passed down through the males of his family. The Darkness, wanting its host body to live, possesses Jackie and compels him to go after his would-be murderers and enemies.

The curse manifests itself in giant tentacles that come out of Jackie’s back that give him augmented abilities such as increased body strength and the use of special dark powers like the “dark tentacles” which can be used to impale enemies or the “creeping dark” tentacles that slide across the ground, allowing the player to attack enemies from a distance with an out-of-body weapon. These grotesque monstrous tentacles slither and hover over Jackie’s shoulders, which places them around the periphery of the screen in the game’s first person point of view. Finding dark areas to increase the Darkness power becomes a basic combat strategy.

Most of the game takes place at night, so the player is taught to knock out streetlamps when outside, and lamps and ceiling lighting while inside buildings, to increase the strength of the Darkness powers while reducing damage taken. This reverses common expectations of the function of lighting in the city—light no longer means safety, and nighttime is privileged over daytime. Unlike Grand Theft Auto, the New York City of *The Darkness* is not a clockwork city, so passing in-game time does not affect the time of day. There are only passing references to the progression of time and the player has no way of knowing exactly how long it has been since the night of Jackie’s 21st birthday. It can be assumed that the first part of the game takes place through the course of that night, but there is a disorienting mapping of play-time and narrative-time.¹⁵⁹

The persistence of the characters in the subway stations gives the illusion of time progressing much slower underground than on the surface. However, as Michael Nitsche writes, “we can deal with these complex temporal settings in video games because of our spatial understanding.”¹⁶⁰ Time of day in the game does not relate to the passing of real world time, but is rather triggered by events that come about through the movement and action of the character. The lack of temporal reference is disorienting in a way that also complements the narrative—giving the sense that everything following the murder attempt on Jackie is a blur and foreshadowing the surreal narrative and spatial turns later in the game.

Use of the City

Small Space

The scale of New York City in *The Darkness* is small. It consists primarily of the neighborhoods of the Lower East Side and Chinatown, which has buildings like the real Trinity Church and fictional St. Mary's Orphanage, and locations such as City Hall, Gun Hill, the Turkish Baths, and the Pier. The two neighborhoods, the church and the orphanage, are accessible directly from the subway stations, while the other locations are accessible through underground service corridors and abandoned train tunnels. During the course of the game, goals are presented either through events triggered by the narrative or by accepting tasks from the non-player characters that populate the game space. Not all areas are available immediately to the player, but are made accessible by completing missions and progressing through the game. The neighborhoods are revisited throughout the game, but other more distant places such as the Turkish Baths are only visited once. The subway stations act as the game's transportation hub and the player returns to them countless times as both a home base and to gain access to new areas. By creating a small space, the designers helped encourage a sense of place with a manageable quantity of spatial knowledge. There are not so many locations that the player cannot keep track of them all and "movements and changes of location can be envisaged."¹⁶¹

Because the space is restricted, *The Darkness* cannot rely on the common symbolic perceptions players might have about New York City as represented in other media. The Grand Theft Auto series relies on these perceptions to construct the world not as it is, but as it is most popularly imagined.¹⁶² The Manhattan of *The Darkness* features no obvious landmarks or symbols that are easily identifiable as New York. Instead, its New Yorkness must come from the naming of places, the construction of believable environments, and the aggregate media portrayal of the average lived experience in New York.

Player Movement

The size of the game's world means that players are able to travel on foot. Michel de Certeau recognized pedestrian movement as the spatial practice that defines the city.¹⁶³ Walking illustrates choices in navigation and attention, how the world is constructed, and how objects and places are related to each other.¹⁶⁴ However, it is not just walking that defines spatial practice in games. Walking is rarely the singular activity of the player moving through space. In *The Darkness*, *the player is required to manage a firearm and use the Darkness powers while walking. Spatial practice is as much about how and where these actions are used as it is about the player traversing the world.*

Subway

Jackie is dark and troubled and feels most at home in the subway stations where he spent much of his youth. The two stations, Canal St. and Fulton St., lead to the streets of Jackie's neighborhood. Because it is nighttime during the bulk of the game, the Canal and Fulton Street subways stations are not bustling hubs of commuters but rather home to an interesting group of characters. Jackie talks with some familiar faces and also meets a group of breakdancers, a crazy tourist lady, a few homeless people, a street performer, and countless others. These characters provide color to the environment and actually make the subway stops feel more alive than the darkened city streets. Subways are also non-threatening—the game mechanics forbid the player from engaging Darkness powers while inside the subway stations.

Loading scenes in the game feature videos of Jackie lit by a spotlight but surrounded by blackness—reminiscent of a confessional or police interrogation—telling an unidentified audience about his memories growing up. A number of these are stories of the subway and his fondness for it. After leaving the orphanage, it seems Jackie found the subway to be a home even though he had other places to live. This is counter-intuitive because public places like subway stations are generally viewed as non-places where the inhabitants are in a state of perpetual transit.¹⁶⁵ Yet, Jackie is in a state of perpetual transit, so his temporal experiences parallel those of the subway station and relatively align him with the spatial embodiment of the subway.

Architecture can be imbued with metaphorical connotations. By structuring, organizing, and enabling space, architecture represents experiences. George Lakoff illustrated the relationship between metaphors and body experience—typified by up is good, down is bad.¹⁶⁶ Laure-Marie Ryan discussed these metaphors at work when children play, in which an object comes to represent an imaginative concept (tree stumps as bears).¹⁶⁷ Videogames take advantage of the power of metaphor to create meaningful places. During one of *The Darkness's* repeated loading scenes while Jackie is riding the subway, he describes the infrastructure: "When I was a kid, I used to look at the New York subway maps, and pretend it was a big old plate of spaghetti. All the lines were noodles, and the stations were huge meatballs. Heh, I told that to Uncle Paulie once, and he smacked me inna back of my head." Here Jackie has given the structure of the subway system a metaphor related to his Italian heritage. It is an image that takes our assumptions of the subway as a well-gridded course and reveals it as a tangled mess that represents the interconnected lives of people and places.

Jenny's Apartment

The player never visits Jackie's home. Presumably, as motivated by the narrative, this is because the mafia thugs who want to murder Jackie would be looking for him at his house. But the player also gets the sense that Jackie doesn't spend much time at his apartment anyway—and even if he does he considers it more of a shelter than a home. The tension between public and private spaces is illustrated in Jackie's reaction to his girlfriend moving into a new apartment, which happens at the same time he becomes possessed by the Darkness. Despite his girlfriend's excitement, there seems to be something impermanent about the new apartment; the warmth in the scene comes not from the ownership of space but from their proximity as a couple. This apartment is one of the many places Jackie spends time but does not live.

While watching television, the game's viewpoint doesn't change to show the contents of the screen. Rather, the player watches from the character's point of view. Sitting on the couch watching *To Kill a Mockingbird*, the player can move their camera around, looking at the objects in the room. Yet this seemingly cozy scene elicits feelings of alienation and uneasiness. Looking to the left, the player sees Jenny curled up against their arm in what should be an intimate moment. But the unpacked boxes stacked around the room show it as a place with no history. The room is dark and cramped, unlike the warm well-lit subway. And it is not only the visual environment that feels out of place. Rarely do games require the player to sit and do nothing, especially games about evil curses and fast-paced gun combat. Jackie has more pressing matters than watching a movie with his girlfriend—matters which he cannot discuss with Jenny. Jackie's desire to get to the bottom of the mystery mirrors the player's desire to get on with the action. So, while the scene is recognizable on the surface as an intimate place, it plays out with quite the opposite effect.

Streets/Neighborhoods

The buildings around the player on the surface streets are tall and confining. Rather than walk off in any direction, as one would be able to do in a real city, the neighborhoods are enclosed on all sides. While unrealistic, players have come to accept this videogame convention. In addition to the main streets that run through the neighborhoods, the game makes use of alleyways and the open spaces that traditionally surround buildings. The arrangement of these spaces is important because it distinguishes it from a game like *Max Payne* that uses the streets and alleyways of New York as corridors through which the player is funneled.

The buildings of *The Darkness* feel authentic—the facades of buildings match the kind of neighborhood being portrayed. The scale of the streets and buildings are relatively accurate—roads are wide enough for cars, doors and windows have an appropriate scale, and objects in the environment are sized correctly. There is not a lot of variation in the architecture nor are the exteriors of the building finely detailed, but the appearance goes beyond the often relied upon method of using the same texture on many buildings.

Building Interiors

Most scenarios in which Jackie enters buildings in *The Darkness* are invasions—the player infiltrates somewhere where they do not belong. As a result, private interior spaces generally regarded as safe become threatening. The majority of missions in *Grand Theft Autos III* and *IV* take place outdoors, which geographically extends the space of play. However, because there are so few surface streets in *The Darkness*, the area of play needs to extend into the interiors of buildings. The player also needs to seamlessly travel between indoors and out, so, unlike *Grand Theft Auto IV*, there cannot be a noticeable transition between spaces (like loading screens or change in quality of models or textures).

Many of the interior apartment spaces are run-down, vandalized, and emptied of personal possessions. The player, of course, does not have access to all of the rooms inside of these buildings because they are private locked spaces. The action often takes place in the hallways that pose the threat of confined space. Contrasted with the subway, where the Darkness refuses to let Jackie engage its powers or weapons for fear of making itself known to the public, building interiors become corridors for shootouts with pursuing gangsters. Other threatening interiors include the orphanage, church, warehouses, a meatpacking factory, and the abandoned tunnels of the subway.

Two of these interiors in particular should represent safety and security, but are transformed into places of violence. The interior of the orphanage, which the player visits after learning part of it was destroyed in an explosion, triggers flashbacks in Jackie, who remembers his youth with a mix of fondness and regret. These flashbacks reveal the roots of his relationship with Jenny, who was also under foster care, and reveal his weakness: deep under the rough exterior of a man cursed lives a soul that wants only to love and be loved. It also shows how easily the few things he feels have a sense of place can be taken away. At the conclusion of the scenario, having weaved through the rooms and memories of the orphanage, the player is left helplessly standing on the other side of a glass window as Uncle Paulie murders Jenny in front of Jackie's eyes.

The church, which is typically assumed a safe-haven, is actually the setting of an intense shootout in which Jackie is set up for capture and subsequently tortured by the police captain. The scene is based around the interplay of light and dark. Jackie, who needs darkened spaces to engage his powers, is caught under the floodlamps set up around the balcony of the congregation hall. The player must destroy the lights while fending off a rain of bullets from attackers on all sides. Returning the church to its darkened state has symbolic implications: it addresses the mythical Hell visited in the previous chapter of the game, allies the goals of the gameplay with religious practice, and equates darkness (and therefore the Darkness curse) with spirituality. Controlling the Darkness, and therefore Jackie's destiny, must be an internal and personal journey that cannot be helped by the two institutions of justice and sanctuary. The police and the church are uncovered as corrupt and dangerous, which raises questions about the player's beliefs in the traditional order represented by familiar places.

Establishing Familiar Pieces

Place is not just familiar locations but the set pieces that construct the narrative environment.¹⁶⁸ They establish a sense of permanence and belonging while connecting players to their own world.

Familiar Faces

We recognize our belonging in a place is through other's interactions with us. At the opening of the game, the subway is depicted as a secure place because the player encounters the first non-threatening character Jackie knows. Enzo Scardina hails the player passing through the turnstiles, commenting on the news that Uncle Paulie has put a hit out on Jackie. He also makes a joke about Jenny, offering to take her off of Jackie's hands. This interchange is important because it establishes the connected network of characters that existed before the player picked up the controller.

The subway is also filled with characters that do not know Jackie, but stand in for strangers we expect to pass in places of transit. The player can even do good deeds for some of these characters, like scaring off the bully who refuses to let the harmonica man play his music. Contrary to the real experience of the New York subway, most commuters in the stations are cordial and acknowledge the player when they approach them, making the subways an even friendlier place.

When the player engages in conversation with a character, the camera changes from a first-person to third-person perspective based on the over-the-shoulder cinematic framing. The character's name is displayed on the screen, which may seem like a strange approach given the player/avatar dynamic, but it lets the player know that it is somebody that they (as Jackie) already know.

Third Places

Typically, an individual's primary places are their home and place of work. "Third places," a term from Ray Oldenburg's book *The Great Good Place*, are another location where people invest their time—a place that is neither home, nor work.¹⁶⁹ One of the most common third places in the United States is the tavern or bar.¹⁷⁰ The bar is not just a place of leisure activity, but also a place for socialization and connecting to one's neighbors. There are two typical third places used in *The Darkness*, each to a different end. The Green Olive Grove restaurant is the site of an after-hours meet-up between the player and a friendly character known as Butcher Joyce. While meeting with the Butcher, police storm the restaurant in an attempt to kill Jackie and its interior is destroyed in the ensuing shoot-out. Later, the player goes through the Whitefish Pool Hall on their way to meet up with another character. The dingy pool hall is depicted as a dive bar. A pair of characters plays pool while another pair discusses a humorous proposition involving a moose. Nobody in the pool hall recognizes Jackie, but they are not hostile toward him. Unless the player commits a violent act, this third place can go entirely undisturbed.

Real World Assets

As stated previously, the player can sit down as Jackie with his girlfriend on the couch and watch the entirety of *To Kill a Mockingbird*. Other televisions in the game world show movies like *The Man With The Golden Arm* and *His Girl Friday*, television shows like *Flash Gordon* and *The Three Stooges*, and a handful of Popeye cartoons and music videos.¹⁷¹ Most of the media used by Starbreeze for the game are public domain, meaning they did not have to pay royalties for their use. Unfortunately, this means they are not as relatable to the audience as contemporary media might be. Regardless, these real world media assets were not a selling point but rather an interesting technique to forge a bond with the real world. As someone who has seen *To Kill a Mockingbird* numerous times, watching the movie on the couch as Jackie in the game bridged the game world and my living room. Even if players are unfamiliar with some of the media in the game, it is apparent that it is something from their everyday space—the same space Jackie is intended to occupy.

Phone System

The Darkness uses a phone system for two forms of communication: the exchange of information between characters and the creation of a world that exists outside of the player's immediate needs. On the one hand, the player makes directed calls to other characters in the game at specific moments. At the beginning of the game when Jackie first enters the subway station, the player gets a message on their pager that prompts them to use the pay phone to call Jenny. Dialing Jenny is as simple as choosing that menu option from the context-sensitive on-screen prompt.

This establishes a gameplay mechanic that is used to connect the player to events and information outside their immediate area. Like other games that employ this same technique, *The Darkness* most commonly uses phone calls to trigger missions and tasks. During the first call with Jenny, she tells Jackie how to get to her new apartment, giving street names and landmarks. Phone calls with other characters direct the player to come see them in person or go elsewhere to do something.

Yet, unlike most games where players use the phone, Starbreeze Studios built in a phone system that connects with people the player will never meet. Scattered throughout the game are little slips of paper with phone numbers on them. Dialing these numbers connects Jackie to other personalities that color the world. Because it is nighttime, most of the calls do not connect to people and the player is left listening to humorous answering machine messages. These recordings serve two immediate functions: to lend levity to an otherwise serious game and satisfy the common trope of collecting objects (extra-textual gameplay). Yet it does something more important that is less apparent. A phone call between two people is an immediate action that can only take place in the present moment. This serves its purpose in games as a way to transfer information or direction. A single answering machine might be used to relay the same kind of information, but the large quantity of random numbers the player can dial in *The Darkness* establishes a real phone network with a sense of permanence. It is not merely in place to serve the player's needs, but rather exists to establish Jackie's New York as a persistent place—a world that existed before the player entered it and one that will continue after the credits roll.

Hell

At the end of the first chapter of the game, Jackie, after witnessing the murder of Jenny, takes his own life and finds himself in what can only be described as Hell. It is a mythical space that can be immediately identified as a World War I battlefield. Before being able to regain control of Jackie, the player witnesses a German soldier speaking in a demonic voice to three American soldiers tied-up while pleading for their lives. Looking around, it is clear the player is in a trench and the sky is filled with the light of exploding shells.

Hell represents a strong sense of place because of its vivid depiction, yet, is understandably threatening in a way the subway is not. It serves as a transitional space that plays with the conventions of place-making previously experienced in the game. In Hell, the player does not have the kind of direction provided by other characters in New York City. The singular goal—escape—is clear, but the means are not as obvious. Unlike Manhattan, the space of Hell is explored in a forward trajectory. The designers are forced to find alternate means establishing a sense of place because the player spends only short periods of time in one location. Instead, the game must draw on vivid imagery while reimagining the techniques used to make place in Manhattan.

Familiar Spaces With New Twists

In Hell, the interior/exterior dynamic of Manhattan persists. The corridors of the trenches act like the hallways of buildings and narrow alleyways of the streets. Other interiors include bunkers, bombed out ruins of other structures, and a central village that acts as Hell's version of the subway stop. The battlefield, on the other hand, inverts the street-level experience of New York. Both confine the player to a restricted space, but Hell has two manifestations of boundaries.

The initial battlefield encountered is surrounded by a deep abyss (though the player cannot fall off the edge). However, in the second battlefield location, known as The Hills, the plain extends infinitely in all directions except toward the goal. If the player ventures outside of an invisible boundary, they will be teleported automatically back to their starting point and have to retrace their steps along a prescribed path.

A central village, which is visited in both Hell chapters, acts like the subway station. A handful of non-threatening characters with which Jackie can converse populate the small town. The most familiar of these characters is Anthony Estacado, his great-great grandfather. Anthony explains it was he who brought the curse into the Estacado family and tells Jackie how to destroy the Darkness. Jackie sees this as his opportunity to be rid of the curse, leave Hell, and regain control of his life. This establishes two parallel goals in the game: kill the Darkness and kill Uncle Paulie.

Stable Objects

Hell uses the interplay of stable and unstable objects to define a number of its spaces. Stable objects, according to Yi-Fu Tuan, are whatever catches our eye in a scene; the subsequent image creates place.¹⁷² Manhattan's stable objects are Jackie's friends in the subway, the landmark pieces of architecture, and the visual design of building facades that form the boundaries of the space. In Hell, before entering the first battlefield, the player approaches a periscope in the trench, which is pointed at a bird-like statue off in the distance. As the only landmark in the battlefield, this bizarre image draws the player toward the goal located on its opposite side. Yet the statue that defines this place attacks the player if they stand too close. Stable objects in Hell represent a double-edged sword: they are necessary for way-finding but are ultimately threatening.

Mythical Space

Walking in the battlefield, the Darkness power speaks with voice-over narration and on-screen text. "Hell has no form," it says, "it bends to my whim. This is my dream of you." Hell, as the Darkness describes, is a conceptual place influenced by Jackie's psyche. It represents his inner mania—loss, revenge, and violence shape its contours. Mythical space ignores the logics of exclusion and contradiction, though it

relies on internal consistency.¹⁷³ However, as Tuan writes, “myth is not a belief that can be readily verified or proven false by the evidence of the sense.”¹⁷⁴

While it would seem obvious that this world is the manifestation of Jackie’s personal Hell, it is later revealed that it is actually a Hell shaped equally as much by the history of the curse. The Darkness, in its current incarnation, possessed Jackie’s great-great-grandfather during World War I. Jackie overpowered the Darkness’ will when he took his own life, so it sent him to Hell so he would be forced to make The Darkness grow stronger (obtaining new weapons and powering up by eating the hearts of the dead). The validity of the actions taken while in Hell are put into question as the player is forced to negotiate the awesome powers of the Darkness and their role as Jackie. Hell is experienced in multiple acts in the course of the game. Jackie escapes Hell the first time by going after a weapon that can destroy the curse. When Jackie obtains this weapon the Darkness sends him back to the world of the living. Jackie will have to go back to Hell to finish the job, but he must also seek revenge on Uncle Paulie for killing Jenny.

Back from Hell

After witnessing Hell, place takes on new meaning. When Jackie comes to consciousness after coming back from Hell, he is riding on a subway train and is dumped onto the Canal Street platform. The first place the player is instructed to go is Jackie’s Aunt Sarah’s house in the Lower East Side, where the game introduces a face that is new to the player but old to Jackie. By virtue of family relation, Aunt Sarah’s house becomes a safe place.

Motivated by the plot, new areas of the game become available. The subway stations, first used to access the neighborhoods above, open into new spaces accessed by underground tunnels. The player travels to other nearby locations in Lower Manhattan like Gun Hill, the Turkish Baths, the City Hall subway station, a few new buildings, and a ship docked in the harbor. The challenges posed by Hell bear new light on Jackie’s quest and it becomes clear that killing Uncle Paulie and ridding himself of the curse will be no small task. The subway station is confirmed as the only fully secure place in the game. Jackie converses with a woman in the subway whose husband he met on the battlefield, delivering sentiments of love from the grave.

Three climactic sequences in the game illustrate the evolved sense of place caused by the visit to Hell. When Jackie returns to Hell the second time, he and Anthony Estacado storm the Castle of the Darkness. The player is made to give up the

Darkness powers to the evil force that originally possessed the family bloodline and do battle with the evil in a scenario that involves more puzzle solving than combat. After defeating the evil, Jackie regains control over the Darkness power and reestablishes the weapons he will need to kill Uncle Paulie. However, the Darkness tells Jackie that for every person he uses the powers to kill, the curse will grow closer to regaining control of his mind and body.

This dynamic is played out in a shootout at Aunt Sarah's house. Here, Jackie's allies gather to protect the house from a police siege—the same corrupt officials who have been pursuing Jackie. Even Aunt Sarah takes up a shotgun to fire at the intruders. Jackie does not use the Darkness powers during this fight, so the player is left to fend for themselves with only guns. Following this, Jackie is driven by boat to Uncle Paulie's lighthouse mansion. For the first time in the game the sun comes out, leaving the player vulnerable. However, as they ascend the steps along the side of the island toward the mansion, the moon slowly eclipses the sun, strengthening the Darkness powers again. Fighting their way through the mansion using the Darkness powers, the player intrudes on Uncle Paulie's space just as he had destroyed Jackie's. During the final showdown, Jackie is presented with a dilemma: in order to finish off Uncle Paulie, he must kill him using the Darkness, but doing so will mean the curse will once again subsume him. In one final violent act, the player takes the life of Uncle Paulie and succumbs to the Darkness. The screen goes black.

When the next scene fades in, Jenny delivers a voiceover saying, "there's always light in the darkness." Jackie awakes, laying on a park bench with his head on Jenny's lap, the city skyline in the background. The world is bright yellow, as if a lighter version of the blood red sky of Hell. Jenny tells Jackie that this is their moment to be together—a singular moment in the ultimate place of sanctuary before Jackie must wake up and resume his life in a changed world. There are two possible interpretations of the placeness of this scene. On the one hand, the ending establishes the space that prompts the greatest sense of happiness, security, and familiarity in Jackie: place can be found anywhere so long as he is with his love. However, this romantic ending seems to be at odds with the rest of the game. After all, Jackie's places had previously been public, dark, and urban. Is this dream world Jackie's manifestation? Or Jenny's? It provides a comforting contrast to the violence of the rest of the game, yet it poses the threat of returning to that world once the dream is over. Perhaps, then, it the last thing that the player sees before the credits roll that best represents the sense of place developed during the game: a screen of total darkness.

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“

*ilovebees is not
a video game.*

”

LEE SHELDON

ILOVEBEES: PLAYING AND DESIGNING IN REAL-TIME

Down the Rabbit-Hole

“After a fall such as this, I shall think nothing of tumbling downstairs!”



The Game

We begin with the previews for the films Spiderman 2, I, Robot and King Arthur released in the summer of 2004. They are preceded by a trailer for the video game Halo 2. At the end of the trailer is a final screen displaying the console the game was developed for: the Xbox. But there is something odd about the www.xbox.com URL at the bottom of that last screen. For a brief second or two it wavers and another URL can be seen: www.ilovebees.com. Then the Xbox URL reappears.

*We found out that it has to be a dance.
We make a move, and they make a move.*

- Elan Lee

The Design

ilovebees is not a video game. It was never on sale. And if you didn't play it from July 13 to November 4, 2004, you've missed your chance. Nevertheless, this alternate reality game (ARG), taking place in the real world in real time, was played by thousands of people all across the US.

The game was designed at 42 Entertainment, the people behind an earlier ARG called The Beast. Both games were viral advertising campaigns. The first was created to promote Steven Spielberg's film A.I. and the second was created for the video game Halo 2.

A core design principle of ARGs is called TINAG (This Is Not a Game). Fact and fiction blur. In-game actions can cause real-world events; and the games can react to those who play them. It's often not possible to differentiate what is part of an ARG, and what isn't.

ARGs don't announce themselves with colorful posters in retail stores. There are no ads on gaming websites. They arrive in the dead of night like Mr. Dark's traveling carnival, unexpected and possibly unsettling. They depend upon word of mouth, and the astuteness of strangers.

The "rabbit hole" (a reference to the beginning of Lewis Carroll's Alice's Adventures in Wonderland), aka the "trailhead," is the point of entry into an ARG. It is subtle, mysterious: a doorway to the unknown, uncovered apparently by accident.

Through the Looking Glass

“Would you tell me, please, which way I ought to go from here?”

“That depends a good deal on where you want to get to,” said the Cat.

The Game

The rabbit hole in the *Halo 2* trailer is only one of two.

In the wake of *The Beast* a community of fans and avid game players has grown up around ARGs. The terms used in this chapter are being coined and debated. They design their own ARGs for each other to play, much the way the video game industry was born. Websites are created to track their efforts.

These are a first generation of experienced bloodhounds with their eyes open and their noses to the ground. They are a critical element for the success of another large-scale ARG.

Their beginning of gameplay consists of physical objects in the real world: jars of honey sent to various members of the ARG community, who will hopefully be able to sniff out the trail of a white rabbit. Particularly since inside the jars are letters that can be arranged to spell out things. Not typical components of most honey jars. What do they spell? I LOVE BEES.

Two groups are therefore targeted: gamers interested in the upcoming sequel to the original *Halo*; and savvy ARG players who, in the wake of *The Beast*, are building their own games, and keeping their radar sweeping for more.

The Haloites and the ARGers leap.



The Design

There are three major dangers with rabbit-holes. The first is that they can be mistaken for actual reality. While most players recognize they are willingly suspending their disbelief, civilians, stumbling into the web of an ARG, may fail to realize it's a game, and respond as if it is all too real.

The second is that the rabbit hole may be too subtle, and be missed entirely.

And third: People might enter the rabbit hole as expected, but fail to recognize their role in the ARG as active players.

Fly in the Honey

“Curiouser and curiouser!”



The Game

Curious parties falling through the rabbit holes find themselves at an innocuous website called Margaret's Honey. But as can be seen by the screenshot, it is immediately apparent all is not right.

The legitimate website is immediately corrupted by a mysterious intruder. And unless you're on a date, the line above the timer counting down is particularly ominous.

Players go to the blog of the website's owner, Dana Awbrey, where she asks her readers to find the source of the hacks inflicting her site. The non-ARG Halo players believe the hack consists of messages from *Halo* characters and Bungie is responsible for the site. ARG players start identifying the first hints of the story behind the intrusion.

It has to follow the rules of life.

- Elan Lee

The Design

There are two factors to be considered in writing story for games: 1) the story itself; and 2) the delivery of that story.

ARGs by their very nature are crossmedia storytelling dynamos, allowing players to uncover bits and pieces protected by puzzles, or hiding in plain sight. Storytelling can be delivered by snail mail, magazines, email, websites, tweets, video, photographs, props, phone calls, faxes, billboards, light shows, rock concerts, flash drives, chalk markings, paintings, t-shirts, live actors, spotlights, sky writing, hieroglyphics carved in stone, even a chapter in a book like this one. Any communication medium is fair game.

The world is the canvas of the ARG, and its colors are infinite.

Artificial Life

“I almost wish I hadn’t gone down that rabbit-hole--and yet--and yet--it’s rather curious, you know, this sort of life!”



list: Melissa, AI marooned in the present day when her spaceship crashes, was sundered by the accident into The Operator (The Sleeping Princess calls her the Queen); the Sleeping Princess (a remnant of the child who was forced to give up her life so that her consciousness would become the AI); SPDR (Spider, an emergency repair program); and the Seeker (called The Pious Flea, a hitch-hiking program that destroys SPDR when SPDR tries to eliminate it).

The Game

The ARGers begin to shift the Haloites from idle speculation to puzzle-solving. Before long they will join together in one hive mind.

And this focusing of resources is matched by the expansion of the ilovebees cast

The “puzzles” that introduce these cyber-characters are straightforward: text messages from these entities delivered as fragments in images and the HTML code itself. But on August 10 the countdown reaches 0, and the next phase of the game begins.

The Design

The hivemind aka collective consciousness aka cooperative intelligence aka swarm intelligence is a phenomenon that designers have struggled with since the game *Senet* in 3100 BC. There will always be more players of any game than its developers. And the sheer number of players guarantees they will be smarter than the developers, so the developers must work that much harder to stay ahead of them.

We released the first puzzle, which was meant to take a day, and they solved that. And then they solved the puzzle for the next day... After the first day had elapsed, they had solved all three months' worth of content. We looked around the room in a panic...what do we do tomorrow?

- Elan Lee on "The Beast"

In ARGs, for the first time, we see games that take on the hive mind on its own terms. Sometimes the magic works. Sometimes it doesn't.

Puzzles are the traditional choke points in ARGs. Making early puzzle solutions simple to solve empowers players. It draws them in. Designing puzzles that take a team composed of neuroscientists and strippers should slow the pace down a bit, particularly if they're all in the same room. Harder puzzles give designers breathing room till players catch up. *ilovebees* would eventually require knowledge of Sanskrit.

Once a video game is boxed, designers can hopefully relax awhile and study

Once a video game is boxed, designers can hopefully relax awhile and study European sports car ads. Developers of MMOs of course, have no such luxury; they're already committed to new content the sooner the better. That real-world real-time stuff is no joke. ARG designers have to be ready to turn on a dime. It's far too easy to underestimate the intelligence of the hive mind. And real life always has tricks to play.

Axons to Grind

“So many out-of-the-way things had happened lately, that Alice had begun to think that very few things indeed were really impossible.”

The Game

Axons begin to go live. Axons, as those neuroscientists will be happy to tell you, once they’ve said their farewells to the strippers, are nerve fibers projecting from a neuron that conduct electrical impulses away from it. Something like... messages...on wires?

Columns of paired numbers appear, looking suspiciously like latitudes and longitudes. And the coordinates seem to mark locations of payphones. Remember those?

We found this awesome website with hundreds of thousands of payphone locations, [but] maybe 5% of the payphones were actually working. So we hired teams and teams of college students, bought them plane tickets and said, “Go to these cities and find payphones.”

And then there are the times when you might want to be standing by one. Sure enough, each week, once new riddles are solved, certain clues are properly interpreted and necessary code words established, payphones begin to ring across the land for those lucky enough to locate them. And a whole new set of characters emerge in these phone calls. Their story, set in the 26th century, begins to reveal the threat of an alien Covenant invasion. Can players from our time prevent it?

- Elan Lee



The Design

Audio recordings play a significant role in the storytelling set in the Halo universe of the future. Indeed 42 Entertainment refers to the game as a “radio drama delivered to consumers over an unlikely broadcast medium: ringing payphones.”

It is here the game began to fall into something of a grind: solve puzzles, find payphones, listen to pre-recorded audio files that were also unlocked online, so everyone could hear them. These files are broadcast by Melissa to try and explain her accident. Balancing challenge with frustration is of course a common element in video game design. Boxed games need to get it all right up front. ARGs can react to players, encouraging and incrementally rewarding them as necessary.

We started seeing blog posts and petitions titled “Oh, Please God No More Payphones.”

- Elan Lee

On October 12th, players were ordered by Melissa to take pictures of themselves at payphones to help orient her in time and space. They met one another face-to-face.

On one call Melissa asked for musical talent. People took bands out there and camped out on curbs with guitars and played music for us. We were really touched by that.

- Elan Lee

Some lucky players picked up the phone to discover a live actor playing Melissa, who would carry on a conversation with them.

I dusted off my psychology training and dug up the concept of “random schedule reinforcement - any time a rat does something good, if you randomly decide to give it a treat, then it will do that thing all the time, never knowing if it will get a treat.

- Elan Lee

This personalizing of the game is a unique and essential element of ARGs, even more effective than staged events where developers play avatars or mobs in MMOs, because it occurs in the real-world.

So things were proceeding well. 20 hour days of puppetmastering were paying off. But what of someone who might come late to the party?

Previously on ilovebees

“Have you guessed the riddle yet?’ the Hatter said, turning to Alice again.

“No, I give it up,’ Alice replied: ‘what’s the answer?’

‘I haven’t the slightest idea,’ the Hatter said.”

ABOUT ME



DANA AWBREY
SAN FRANCISCO,
CALIFORNIA, UNITED
STATES

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PROFILE](#)

Is a phone ringing near you? Current live axons.

ALLIES

[beekeepers forum](#)
[beekeepers blog](#)
[beekeepers chat](#)
[fireflies guide](#)

TOOLS

[timeline and transcripts](#)
[payphone locator](#)

The Game

The story revealed by the axons features six major characters in four, then five, discrete storylines. Their connection to Melissa, the Sleeping Princess, to each other and to the events in the present, seems only to be the fact that Melissa is releasing their stories. But soon they begin to intersect. And the connective tissue begins to be revealed as Melissa, (named Durga by one of the characters).

But these bits and pieces of story are jumbled, open to interpretation and newcomers need to know what’s going on, and how they can join in. Dana’s blog helpfully provides the background they need, and keeps a running tab on “what we know so far:”

The Design

Word is spreading. On October 18th, as more and more interest is centered on the game, *Wired* runs a story on it with a link to the *ilovebees* website. Newcomers hit the site. Some come to check it out, then buzz by; others stay to play

Wandering, players moving through a gamescape with little or no idea of what they are meant to do, is a common design concern. Solo games provide journals in media appropriate to their setting; mentors and sidekicks to nudge and remind. For MMOs developers can publish updates as needed, hyping expansion packs or free new content.

ARG players are not avatars within a scripted drama. They play themselves. The game provides no journals. And as smart as the hive mind may be, they may still need to be nudged and reminded. Happily, the solution for ARGs can be a synergy of both solo games and MMOs.

The updating should come organically from within the game’s fiction. Dana, the poor human character in our present day, who was dragged into this increasingly convoluted story just as the players were, is the perfect conduit for both developer storytelling and player interaction with that story. She obligingly synthesizes all known facts for players both seasoned and fresh on her blog (journal).

And it’s important for the players not only to keep up. They must be emotionally invested as well.

Death of a Sleeping Princess

“They’re dreadfully fond of beheading people here; the great wonder is, that there’s any one left alive!”

Okay, so you know what the Operator has asked me to do.

You also know what she has threatened me with.

Please help me stop the Operator from hurting Aunt Margaret. She is real. Your “friend” the Sleeping Princess is not.

You might want to stop me. But I am not going to be stopped.

I can, however, be helped.

I need a way to neutralize the rogue process.

POSTED BY DANA AT 10/22/2004 07:39:00 PM 301 COMMENTS 

The Game

Melissa (The Operator) becomes convinced that the Sleeping Princess, in league with the Pious Flea (a possible Covenant virus), is a danger to her and must be destroyed. Melissa can’t do it alone, and the players have grown fond of her. Melissa threatens Dana’s Aunt Margaret, the woman Dana created her website to honor. Dana is determined to protect her aunt. She asks for help in destroying the Sleeping Princess.

The players debate what they should do. In the end the Sleeping Princess, supposedly a “rogue process,” is destroyed. But she does not go gently into that good night. Remnants of her memory are left behind embedded in the site’s corrupted images. Between them and the latest audio files the stories of a little girl named Yasmine and the Sleeping Princess become one. Yasmine’s voice becomes the Sleeping Princess’ voice.

The Design

The fact that the players had at this point spent weeks painstakingly assembling a story set both in the present and in the future makes its success as a story all the more remarkable.

The beauty of *ilovebees* is that it appears to be an intricate web of complexity. Yet in the end it is revealed to be quite simple. It is the delivery that was far more complex than the narrative. This is as it should be. We deal in games here after all.

The story of the film *The Usual Suspects* seems on the surface to be highly complex, yet it is quite simple. But the film is little more than a clever puzzle once the solution is revealed.

ilovebees is rife with puzzles. Yet it also takes the time to be something more.

Creating story and characters who come alive when rescued from scattered fragments is a delicate archaeological task. The constant dialogue between the developers behind the curtain and the collaborative will of the players requires constant tweaking and massaging to maintain Coleridge’s willing suspension of disbelief.

From the reactions I saw from the players, they really liked the stories and really got into them.

- Elan Lee

In the end the solution of puzzles is not enough. Emotion, human emotion, must be invoked. The death of a “rogue process” became the death of the memories of a child who had already given her life once to become the AI of a spaceship of the future.

We Get to Play Halo 2 Five Days Early?

“Everything’s got a moral, if only you can find it.”

The Game

The last audio files give us the ending in the future. All of the main characters band together to try and shut-down a Covenant device from Melissa’s ship. Unfortunately it sends a message to the Covenant revealing the Earth’s location. Each of what should be concluding scenes of the story is interrupted by the Covenant’s arrival. And from here on in, it’s Master Chief’s fight.

With the help of the Pious Flea, Melissa is able to reconstruct herself. And we learn that the Sleeping Princess was not destroyed, but re-integrated into Melissa once again in the future. Then a final message from Melissa informs us that the Flea was indeed the Covenant virus. And the original SPDR program gets its revenge by destroying the Flea.

So there is a happy ending of sorts in the present. The future is still up for grabs.

ilovebees players are invited to take part in training exercises on November 4th to prepare them to battle the Covenant. DVDs containing material from the game and other promotional materials are handed out.

Halo 2 is released on November 9th, 2004.

The Design

It would be well to remember here that *ilovebees* was financed and created as a viral advertising campaign for a first person shooter. The fact that thousands of players invested months of their lives, not to mention hundreds of gallons of real gasoline, is a testament both to the strength of its developers and its genre: that still bleeding edge that is the alternate reality game.

In the end however, it became time to tie the fiction of *ilovebees* back into its original purpose. There was some grumbling in the end that while the end of the story results in the beginning of the massive Covenant invasion of Earth, the end of the game resulted in some players getting a chance to play Halo 2 a few days before it was released.

Also irritating was that the event was opened up to non-*ilovebees* players, who felt that after all their hard work, the training exercises should have been their reward alone. To add insult to injury some organizers had never heard of *ilovebees*.

So at last creativity and commerce collided as they sometimes do, and we are left to analyze the pieces.



Playing and Designing in Real Time

“,” the King said gravely, “.”



Taken by itself, *ilovebees* is an incredible accomplishment.

Working often in the dark, with little knowledge of more than the broadest outlines of the story they must link to, the developers of *ilovebees* created a game that was in the end every bit as satisfying to its fans as *Halo 2* was to its fans.

The challenges of designing in real time, and trying to keep one step ahead of the hive mind, are a fascinating extension of

what video game and MMO designers accomplish in the digital world. What sets ARGs apart is that the game is played out between designer and consumer on a level playing field. And everybody is out there together.

All of our design work, all of our careful planning and flawless execution, can't prepare us for the slings and arrows of outrageous reality: players who are as tenacious as we are devious; the vagaries of geography and weather; the mutability of tools that break; and yes our own mistakes. There are bugs in ARGs as surely as there are bugs in every garden except probably Eden.

Those who design these games of alternate reality must be as light on their feet as tap dancers; as flexible as sideshow contortionists; and as tireless as marathon runners. The clock keeps ticking. The players keep playing. And it isn't until the game is finally done, that they can finally stop.

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Heading quotes are from Lewis Carroll's Alice's Adventures in Wonderland.

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“

I had just experienced one of the most immersive, suspenseful and physical videogame moments of my life and I had been doing absolutely nothing for a full minute.

”

STONE LIBRANDE

RESIDENT EVIL 4: THE MERCENARIES MINI-GAME

Trapped in a Castle

I'm cornered on the upper floor of an ancient castle and I can hear the enemy troops searching for me below. I don't move. I try not to breathe. My heart is pounding so loudly that I'm afraid it will betray my location. I remain perfectly still while I wait for the rescue helicopter to touch down on the roof and save me from this nightmare. A long minute passes. Finally, I hear the helicopter's rhythmic blades overhead. I'm exhausted, but euphoric. I feel like I've crossed the finish line after sprinting a mile, but I have not even moved a muscle. Now, confident that my mission has been successfully completed, I relax, let out a deep sigh...and drop my Gamecube controller to the ground.

Abruptly, I'm back in my living room standing 3 feet away from the television screen. I had been so deeply immersed in my game of *Resident Evil 4* that my body was convinced it had been trapped in that castle. I can still hear my heart racing and feel the adrenaline flowing through my veins.

Then it occurs to me. I had just experienced one of the most immersive, suspenseful and physical videogame moments of my life and I had been doing absolutely nothing for a full minute. I didn't pull a trigger, move a joystick or push a single button. I had been standing perfectly still staring at an empty stairwell on a television screen and watching a clock countdown from 1:00 to 0:00. How could doing nothing be so exciting?

To answer that question, I decided to examine *Resident Evil 4* more thoroughly. I had been playing The Mercenaries portion of the game, which is only a small subset of the full game, so I thought it would be easy to break down the game mechanics. I began by mapping out the reward moments and the gameplay arcs, but I soon realized that the answer could not be found by studying only that one game. To get the full picture I needed to factor in all the games of The Mercenaries that I had played that night (about 30 of them), as well as the previous two weeks of gaming sessions (probably more than 300 games in total).

The Mercenaries Mini-Game

Resident Evil 4 was originally released for Nintendo's Gamecube console by Capcom in January 2005. It quickly became one of the most popular games for the console and won numerous awards, including Game Informer's "2005 Game of the Year". Subsequently, it has been released for the PC, PS2 and Wii consoles.

I had spent several long nights playing through *RE4*'s campaign story and I also rank it high on the list of my best game experiences. But as good as the campaign is, it is not at the top of my list. That honor belongs to The Mercenaries, a mini-game that is hidden on the *RE4* disc. You cannot simply play Mercenaries from the main menu; you first must prove yourself worthy by beating the story mode.

The rules to Mercenaries are simple. You are placed on a small map and have two goals: survive and score points. If you die you lose all your points and the game is over. If you survive you are awarded "stars" based on your score. Score 60,000 or more points and you get 5 stars, which is the highest rank.

All this seems like standard videogame fare: kill mutants, get points, don't die. So what is it about Mercenaries that puts it at the top of my list? Rather than gush about my emotional responses to the game (which were both numerous and powerful) I want to take a more logical approach and deconstruct the game into a series of timed reward moments. By mapping out these rewards, and the intervals between them, we will see that Mercenaries is constantly rewarding the player. And as long as there is a meaningful reward right around the corner then the player is in a situation where he or she feels compelled to continue playing. Mercenaries not only achieves this on a second-to-second and minute-to-minute schedule (many games get that right), but it also succeeds on daily, weekly and monthly schedules.

100 Stars

A fundamental way of understanding any game's structure is to break it down into a series of rewards that pull the player through the experience. If the rewards are too far apart then the player may lose interest before completing the game. Conversely, rewards that are too frequent often stop feeling like rewards; the constant repetition causes them to lose meaning. A central goal of any game designer is to find the balance between these two extremes. To see how the *RE4* designers achieved this goal we will start by looking at the most infrequent rewards and then working our way down to the most frequent rewards.

At the highest level, The Mercenaries mini-game is itself a reward. It is a bonus game that can only be unlocked when you beat the main *RE4* campaign game. So right from the start you already feel special; your skills at *RE4* have earned you the privilege and honor to play Mercenaries. Of course you feel compelled to try it at least once.

But after the first few attempts what compels you to keep playing? The carrot that is dangled in front of you is the ultimate unlock: the Hand Cannon! This magnum pistol is by far the most powerful weapon in the game. (For comparison, a fully upgraded semi-automatic rifle is rated at 15.0 firepower, while the Hand Cannon is rated at 99.9 firepower). Replaying *RE4*'s campaign with this destructive weapon in your arsenal will essentially turn you into a god, as even the toughest bosses die in two or three shots.

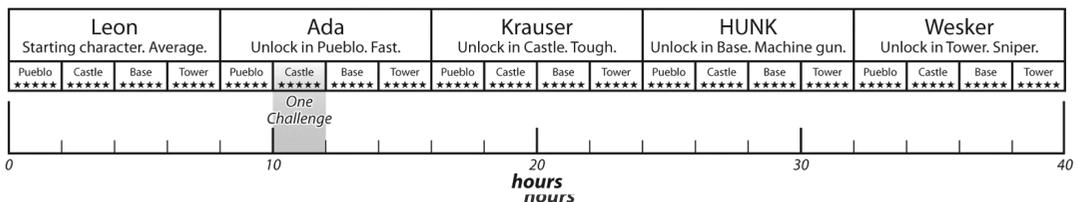


Of course, a legendary weapon like the Hand Cannon is not going to be easy to obtain. To prove your worthiness you need to earn 100 “stars”. Stars are simply a measurement of your score and, more abstractly, your skill level.

There are 5 characters in Mercenaries and each character can earn up to 5 stars in each of the 4 different levels. You start the game with Leon, the hero featured in the main story. Leon is a jack-of-all-trades character who is good at everything but not particularly strong in any one category. Since you have to beat the campaign game before you can play Mercenaries then it is guaranteed that you will already be familiar with him and know what to expect.

Leon can play on four different levels and each one emphasizes different strategies. The Pueblo is an open farming village with one and two story buildings and barns. The enemy can come from any direction and you have to continually watch your back. The Castle is a medieval maze-like complex with multiple staircases and balconies. This level has several key choke points but you have to be careful or you will be cornered with nowhere to run. The Military Base is a combination of trenches and twisting caves in a mountainous desert environment. You tend to go toe-to-toe with enemies in the passageways as you move from one zone to the next. The fourth level, Towers (or Water World), features several multi-story open structures surrounded by water and connected to each other by a series of ladders and walkways. Long range attacks are favored if you can hold the high ground.

Earn 20 Stars per Character (5 in each level)



After achieving a 4-star rating on any of the four levels you unlock a new character. Each character has a set of unique talents and weaknesses which forces you to change your play style. Ada is unlocked on the Pueblo level. She is the fastest character and has ninja-like close range attacks. While playing her you are encouraged to keep moving. Krauser is unlocked on the Castle level. He is the toughest character and has a unique demonic arm that deals a devastating short range attack. HUNK is unlocked on the Military Base. This gas-masked soldier starts with a machine gun and is good at mowing down crowds of enemies from a distance. The final character, Wesker is unlocked by getting a 4-star rating on the Towers level. He is the best of all the characters at long range with his upgraded sniper rifle. At close range he pushes enemies away using a powerful psionic blast.

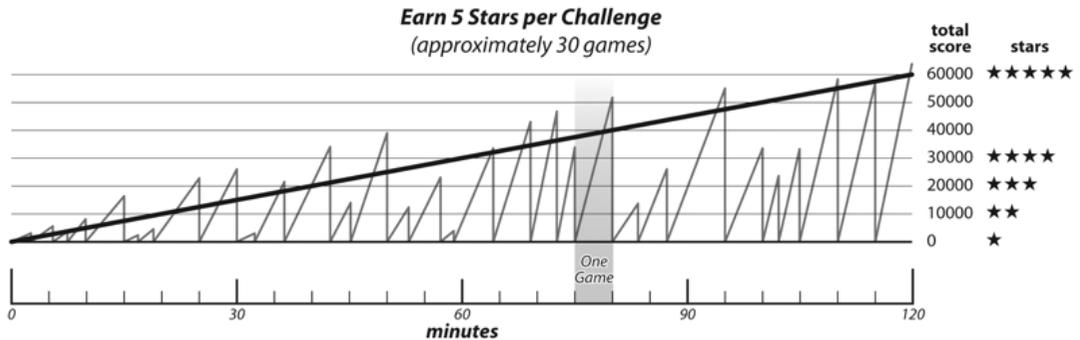
The combination of the 4 levels times the 5 characters creates 20 distinct challenges to master. Because the characters have their own special traits and weapons you will find that beating the Castle level with Leon is a different experience from beating it with Ada. The variety in the level design also means that the same character needs to use different strategies depending on his or her location. Playing Wesker in the Military Base requires different skills than playing him in the Towers.

So although the rules of the game remain the same across the challenges (stay alive and score as many points as possible before time runs out) each challenge has a unique feel, as if you were playing 20 different games. This keeps the gameplay fresh, which is important since you might be playing for a long time. It can take over 40 hours to master all the character/level combinations and accumulate the 100 stars.

Session Improvement

You can earn up to 5 stars per challenge, but it is unlikely you will be able to do this on your first attempt. In fact, on your first try you will probably die a gruesome death as you make a wrong turn and stumble into a crowd of axe-wielding mutants. In general, it will take an hour or two of practice before you memorize the level layout, the enemy positions and attacks, and how best to use your character’s unique skills to your strategic advantage.

One of the great features of Mercenaries is that you can literally measure the improvement in your skills as you gradually, and consistently, get better with each replay. What feels like an insurmountable obstacle in your first play through will become a simple (and routine) task as you refine your strategy. Although your score may vary up and down from one game to the next the overall average score will tend to rise over time (the straight black line on the graph below).



Another important factor that adds to the game's replay value is that each game is relatively short. An average game takes only takes about 5 minutes to complete. This encourages a "one more try" attitude. No matter how long you have been playing it seems like you can always spare 5 more minutes to try again. When you beat your previous best score you will want "one more try" to see if you can continue the trend. When you die early due to a stupid mistake you want "one more try" to make amends. When it is past midnight and you need to get up early for work the next day then it is easy to rationalize "one more try" because you will only be losing 5 minutes of sleep.

The star system acts as a set of milestone markers to gauge your overall progress. Getting one star is trivial (as long as you stay alive) and you will achieve that milestone quickly. 2-star, 3-star and 4-star scores will happen within the first hour as you begin to find and exploit effective patterns. At this point the game fools you into believing that your 5-star score is right around the corner. After all, you are on a reward schedule that is handing out 1 star every 15 minutes of play. But in reality this is about the time that the game gets serious. You will likely need an hour or more to get that last star.

Notice that the difference between a 4 and 5-star game is 30,000 points. Essentially this means that a 5-star player needs to be twice as skilled as a 4-star player. Even with a linear progression in scoring it will take you twice as long to achieve your 5th star as it did to achieve your 4th.

It is not uncommon for a player to get frustrated around this point. After all, the first 4 stars were doled out at a fairly fast and consistent pace. Suddenly, the player feels like he has hit a wall and the rewards stop coming. In many games this would be the catalyst that makes a player quit for good. The designers seem to have anticipated this, because right when you reach a 4-star ranking a new character is unlocked for you to try. Instead of quitting in frustration you have a new option: try out your new toy and, at least temporarily, forget that you are stuck.

SCORE	STARS
60,000+	★★★★★
30,000+	★★★★
20,000+	★★★
10,000+	★★
0+	★
DEATH	

As you continue the game you begin to notice that you are improving. Over time your score has been growing. Slowly, but noticeably, you are inching up on the 60,000 mark. This feeling of constant progress, however slight, instills a sense of hope and increases the need to try again. As your skill continues to rise you will inevitably get a score in the high 50 thousands. These games prove to you that a 5-star game is possible. After each game you start to identify the one key event that kept you from getting that final star. Maybe you forgot to reload during a quiet period and ran out of ammo in the middle of a crowd. Perhaps you threw a grenade too early and took out only one mutant instead of the five you hoped to kill. In any case, it will be hard to avoid the urge to immediately hit the “Replay” button as you attempt to get it right the next time.

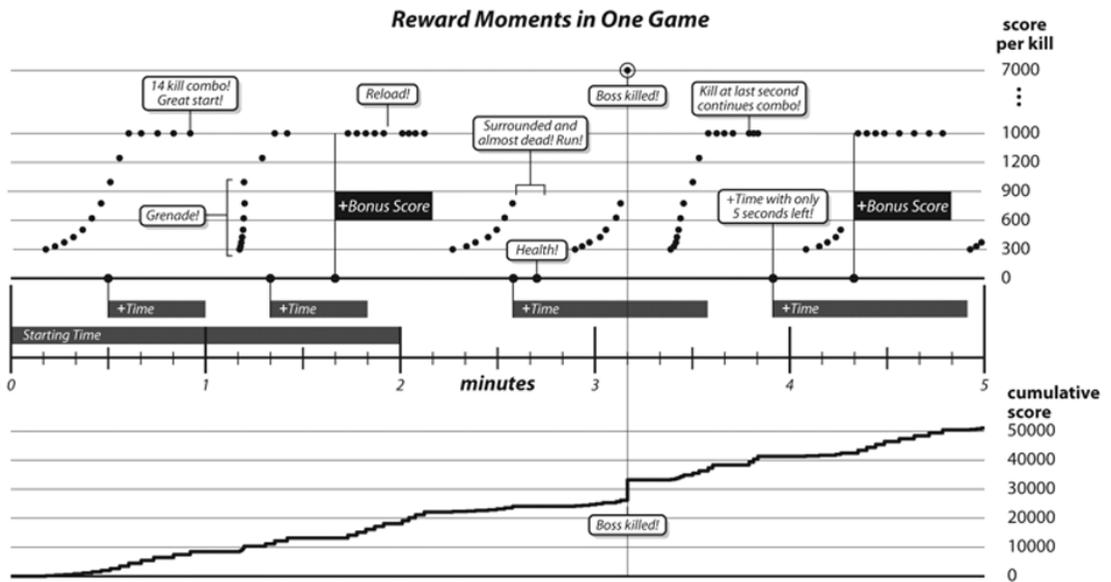
Perhaps the worst mistake you can make is to reach the 60,000 mark and then die before the helicopter rescues you. No matter how high your score, you do not get any stars if you are dead. That period of time between certain victory and utter defeat is without question the tensest moment in the game. You no longer need to score points; you only need to stay alive. Unfortunately, this is trickier than it seems since enemies are lurking around every corner. If you make one bad move all your effort will be lost.

If that unfortunate event occurs (and there is a high likelihood that it will at least once in your 20 challenges) then you will have to suppress your powerful negative emotions. (Like the urge to throw your controller through the television monitor.) Instead, take a deep breath and look at the bright side. You have just proved to yourself that you have the skills you need to break through the 60,000 point barrier! This brush with a 5-star game, though painfully frustrating, will not make you quit. Instead, it has the opposite effect. You immediately hit the replay button, certain that victory is inevitable.

Over the next 10-20 games everything comes together. You have memorized every nook and cranny of the level, learned the strengths and weaknesses of both the enemies and your hero, and perfected an optimal route that takes you to all the weapons, ammunition and health vials. You have discovered the choke points where you can take out a room full of mutants at once, and you avoid being cornered in the death traps where there is no way to run. A 5-star success is now only a game or two away.

Second-to-Second Moments

The meta-game of collecting all 100 stars, and the session game of beating a 5-star character/level challenge, are both excellent examples of how to enhance replayability and get a player hooked over long periods of time. But it would all be pointless if the core game were lacking in its own rewarding moments. An individual game of Mercenaries is a tense and exciting experience from beginning to end. The reward moments range from second-to-second decisions (attack or flee, shoot or reload, explore or hide) up to the final game goal (stay alive until time runs out).



(To beat Mercenaries you need to play about six-hundred 2-5 minute games like this!)

Timer

The strongest pressure on the player is the game clock, which initially starts at 2 minutes. The clock is prominently displayed in the upper left corner of the screen. It shows the remaining minutes, seconds and hundredths of second. The bright white numbers make it hard to ignore. (And when there are only 30 seconds left it

turns blood red and flashes, guaranteeing that it will not go unnoticed.) In fact, the timer appears larger than your score total, which sits humbly below it. The timer is a constant reminder that every second is precious and, like a bass drum rock beat, it sets a fast, powerful tempo for the game.

Unlike a typical race game that requires the player to complete a certain task before a timer runs out, *Mercenaries* uses the countdown to determine victory, not defeat. You win the game when time reaches 0:00. Your goal is to avoid dying before that happens.

Unfortunately, you cannot achieve a 5-star rating with the initial 2 minutes of time, so you are forced to find the glowing orange time extension bonuses that are scattered throughout the level. Each one you touch adds either 30, 60, or 90 seconds to your clock. Whether or not to increase the timer is a risk/reward decision. By extending your time you are potentially maximizing your score but you are also giving yourself more opportunities to die (and losing all your points) before the timer runs out.

Combos

Riding on top of the persistent clock beat is the combo system. The basic combo rule is simple: you score progressively more points for each successive kill, as long as each kill is made within 5 seconds of the last. Like the clock, the combo counter is not subtle. It appears in large white letters in the upper right corner of the screen and cannot be ignored. It blinks aggressively when the combo is about to expire, taunting the player to kill something...soon! If the timer is the bass drum then a combo is the guitar riff. Each combo is a freeform period of energy that gets more exciting the longer it continues.

The gameplay effect is that the player feels forced to fight. This is not a game about hiding, waiting and biding your time. You need to constantly keep in motion and actively seek out things to kill. The more mutants you find in a group the better your chances are at keeping the combo going. Once again a strong risk/reward pressure is revealed. More enemies equal more points, but heading into a mob of mutants significantly increases the chance that you will die and lose everything.

Bonuses

Another way to increase your score is to pick up the bonus point power-ups that appear in each level. Once activated you have 30 seconds to score bonus points with each kill. This provides yet another risk/reward decision since the best strategy for using these is to make sure a lot of enemies are nearby before activating the bonus. Trigger a bonus power-up too soon and it will be wasted. Trigger it too late and you will die.

Bosses

When the level begins you will see only standard enemies. But as time goes on you run the risk of bumping into boss enemies. Each level has its own unique boss (chainsaw-wielding peasants, a man-beast with giant claws strapped to his hands, a mutant soldier with a rapid-fire machine gun, and a dual-chainsaw wielding monstrosity called Dr. Salvador Sr.) which requires a different strategy to defeat. Of course, these baddies are tough to kill but can usually kill you with one attack. No matter how healthy you are it is hard to survive a chainsaw to the head. It is possible to avoid the bosses by running away when they are near, but then you will miss out on a huge point bonus (almost 25x as much as a common enemy). Killing a boss (or two) is the best way to get a high score. Unfortunately, fighting a boss is also the most common way to die.

Another interesting risk/reward tradeoff is that the chance for a boss to spawn increases the longer you are on the level. So if you add extra time on the clock (which you will, if you want a high score) then bosses will start to spawn quicker. If you manage to collect all the time extension bonuses then it is likely that you will be attacked by two bosses at once by the time the game is nearing its conclusion.

Weapons, Ammo and Health

Interspersed at approximately 15 second intervals are the standard set of decisions that appear in most videogames with weapons:

- Which weapon should I use now? As the game progresses the enemy groupings change and you need to quickly switch to the best weapon for the job at hand. When the enemies are far away and unaware of your presence then it is a good time to equip the accurate, but slow-loading sniper rifle. If the enemies are grouped together in a tight room then lob a messy, devastating grenade. If you are running low on ammo then you might want to consider putting away your gun and slashing with your trusty knife.
- Is it safe to reload? Should I use all my ammo now or save some for later? Should I pick up that ammo on the ground now or wait until all the enemies are dead?
- Do I have enough health left to survive this battle or do I need to run away and eat some colored herbs (*RE4*'s healing potions)?

Finally, it is worth noting that in addition to points, each kill has the potential to drop a box of bonus ammo or an extra vial of healing herbs. The message is clear: You need to kill if you want keep on killing. You need to kill if you want to stay alive. You need to kill if you want a high score.

Back in the Castle

It should now be easier to understand my frame of mind on the night that I was trapped in the castle. It was past midnight on a weekday and I had been playing for over two hours straight. Because I play video games standing up just a few feet back from my television screen (a habit I picked up by spending my teenage years in video arcades) my legs were sore and my eyes were dry and stinging. I had to get up early and work the next day but I continued to tell myself, “This one is the last one—no matter what—and then I’m done for the night”. I must have repeated this mantra, to no avail, after each of the last 20 games.

When I finally broke the 60,000 barrier I had over one minute left on the clock before the helicopter arrived to rescue me. Previous experience had taught me that running around was a sure way to die. So this time I decided to back into a corner on the top floor and wait for the enemy to come to me. They never did. Anticlimactically, nothing happened. I ended up standing there, my gun pointed at an empty stairwell, waiting. Yet, I was completely engaged, to the point where there was no TV, no controller and no living room. All that existed for me for that minute was a stairwell, a gun and a clock.

I was completely hooked. At that instant I knew that I would have to collect all 100 stars and unlock the Hand Cannon. Over the next week I continued to stay up late and play *Mercenaries*. As my experience with the characters and my knowledge of the enemies grew I noticed that I was completing the levels faster. What used to take over two hours was now taking less than one. The end was in sight, which only increased my desire to play more.

Strangely, when I finally beat the last level with the last character I did not feel excited. In fact, I felt a bit sad. It was the same feeling that you get when you finish the last page of great book. You do not want it to be over. “Well, at least I unlocked the Hand Cannon”, I thought.

The next night I loaded up the campaign game, ready to start all over again with my Hand Cannon. I equipped my powerful weapon, shot a couple of mutants, and quickly noticed that my motivation was gone. I had reached the end of the reward chain and had no reason to continue playing. I exited the game. After more than a month immersed in the world of *Resident Evil 4* I knew it was time to move on to another game and face new challenges. My Hand Cannon had gone from being the ultimate weapon to being little more than a trophy, another dusty memento on the virtual shelf that holds my collection of video game memories.



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FRANCISCO SOUKI

SUPER MARIO 64: AN EXERCISE ON FREEDOM AND STYLE

It was Christmas Day 1998 and as I woke up and looked at my pile of presents there was only one shape I was looking for: one boxy shape that I had trained my eyes to recognize. The ceremonious unwrapping of the presents that has become a tradition in my family of (then) five culminated with the unveiling of my very own Nintendo 64. I had never owned and never played with a Playstation and I did not own a computer capable of running the latest games on the market: I had just unwrapped my entry ticket into true 3D.

I moved the Super Nintendo to a different shelf and placed the N64 in the spot of honor: right below the TV, sitting atop the VCR. Before even turning it on I gripped the controller: I already knew how to handle this pointy piece of plastic - I had read the reviews and understood the logic behind it, I had imagined I held it while looking at the magazines and had already come to peace with its magical asymmetry. Heck, I had even explained to my friends how to wield it without even having looked at the real thing myself. I was ready.

Super Mario 64 (referred to in this piece sometimes as just Mario 64), in true Nintendo fashion, came with the system. But it didn't just come with the system, it was the system. Concept and execution, means and end married in one cartridge full of magic. I placed the game in the cartridge slot, pushed it down and slid the power button. I gripped my asymmetrical controller and it gripped back just slightly, as if shaking my hand. Welcome, sir, it said, reassuring me that everything was OK, that we were together in this journey. And so it all began.

"It's-a-me! Maaario!"

Mario's face was there, taking the whole screen and looking at me, welcoming me to this new adventure. I was free to play with him, stretch his features, spin him around. And stretch and pull I did. Right from the start I understood that Mario was my partner - he does not mind you messing with him a bit, he understands you're in control; but whatever you do to him, however you interact with him, he will never stop being Mario. That became clear way before I even knew what this game was about.

And what the game was about I learned immediately afterward - not that it would have been too hard to imagine. True to traditional Mario fashion, Bowser had kidnapped Princess Peach and trapped her in the Castle; so it was Mario's turn to progress through the different worlds where Bowser had hidden the Power Stars in order to reach the top of the castle and defeat him. The worlds in which the Stars were hidden could be accessed via enchanted paintings, which were strewn around the castle, and most of them were reminiscent of already existing worlds from previous Mario games: there's a water world, a Bob-omb world, a lava world, a cave and so on.

Thus you learn from the very start that the game is, at its backbone, a traditional Mario game. However, and this you don't know from the start but you certainly wish for it, it improves in all the right places so much that it redefines the whole Mario franchise, revamping it for the 3D era. The game stays very close to a lot of the elements that we all had come to associate with Mario games up to that point, some of which we have already touched on - such as a straightforward princess-kidnapping story and a clear, themed distinction between worlds (again, the water world, the desert world, the cave world, etc.). However, the new elements that it adds, most of which are founded on the old elements and readapted to the 3D world, are truly what make this game transcendent.

Back to 1998, then.

We had not yet fully entered the age of the tutorial, and so I still hadn't shed the habit of reading instruction manuals before playing games. This meant that as soon as I was let loose on the grounds of the castle, I made sure I made Mario try out every single move listed on that booklet - this would prove invaluable later, since Mario's repertoire of moves is truly extensive and versatile. Strangely, I found that all these moves, especially the long-jump and the backflip, came very naturally to me. Of course, we are talking about a set of moves which are all achieved with the combination of only three buttons (A, B, Z) plus a joystick, but still, from minute zero I knew the extent of Mario's abilities and felt, no pun intended, in control.

As the game progressed, these moves always stayed with me and were very rarely conditioned by any external elements. I felt like I could have beaten anyone in the whole world in a duel of long-jumps, like every surface was inviting a wall-jump and that I could acrobatically hop from pole to pole for hours. Almost the whole set of ways in which I could interact with the game was defined for me very early on, and it did an amazing job at keeping the boundaries clear. I could measure a gap and deem it long-jumpable or not, and that measure would stay true for the duration of the game. The language through which I communicated with the game stayed true throughout the whole experience, and that made my connection with the world strong from the very beginning - and it only got progressively stronger.

The result was that almost ten years later when I picked up Super Mario Galaxy, having skipped every other Mario game since 64, the first thing I did when given control of Mario was a long-jump. Then a backflip. Then I smiled the smile of nostalgia. Those controls stayed, and will stay, with me forever. Even now, as I replay Super Mario 64 while writing this piece, I feel how the N64 controller easily slips into my hands and begs me to long- and triple-jump this life away.

And part of what makes the controls of Mario 64 so special is that they support a theme of style that has been with the Mario franchise since the very beginning. Mario games, always so right when it comes to the jumping, the running and the stomping, have always encouraged players to have fun with Mario's moves. And the controls are only half of it, since the games invariably provide for an environment where having fun is not only allowed, but encouraged.

Back in the original Super Mario Bros. we saw how bouncing off several enemies in a row granted Mario a bonus and how grabbing a Star power-up prompted the player to run through a level like an invincible bullet. The following Mario games kept reinforcing this concept to the point where it became part of the Mario culture. I may be wrong for thinking everyone will relate to this, but I remember fondly how when I defeated any of the Koopa children in Super Mario Bros. 3 I would take a precise position so I could grab the falling scepter before it hit the floor. It made absolutely no difference in terms of gameplay, but I wanted to play with style and the game was giving me the opportunity to do so.

With Mario 64 it's a way bigger deal. The game provides more than 15 different levels for the player to have fun in - not levels, but playgrounds if you may - each with a different environment that foments freedom of movement in a particular way. Access to so many different jumping styles means that every player will reach for a ledge in their own way (I will always favor the backflip) and, with time, they will even start navigating the worlds with their own style. The only thing that saddens me a little bit about Mario 64's controls, and that didn't register with me back in the day, is that Mario does not automatically grab on to a ledge when he falls while walking and he also seems to be missing some milliseconds of gratuitous air time once in a while when jumping off ledges; these are conventions that came to the genre with time and that become evident when revisiting an older classic.

Super Mario 64, then, took the concept of style to an entirely new level. And a big part of how it did so was by introducing the concept of freedom. Not only is level design in the game non-linear but it is also open-ended. Players are dropped into a level with only a four- or five-word hint of how to get a given Star and then are left to explore the level at their leisure, free to look for the hinted Star - or any other, for that matter. As I said before, levels in the game are more playgrounds than anything

else, encouraging the player to be curious and playful, to explore the level's nook and crannies and to interact with it in any way they can think of. The non-linearity of the level design combined with the infinite possibilities of style for controlling Mario give way to a truly memorable experience that feels pretty much like, well, just playing.

The concepts of freedom and style are the driving force behind the game and, in my humble opinion, the two pillars on which it was built. It really feels like mostly every other element in the game supports these pillars in some way, thus generating a strong experience that feels constantly joyful and fresh. Earlier in the piece I mentioned how Mario 64 concentrated on improving the already existing elements of Super Mario games, and I think this is the case with freedom and style as well. I believe that they feel natural within the progression of Super Mario games.

By reshaping the traditional elements that make up any Mario game and putting them to the service of freedom and style, Nintendo managed to craft a well-rounded and consistent game, and if we take a look at some of these elements we will quickly realize how they have evolved from previous Mario games and how they support the new themes. Let's take, for example, the music and sound of the game. A lot of the music consists of a re-imagining of the music from the older games, which clearly hints at a desire to keep the same atmosphere. However, where the sound really strikes us as exceptional is through the sound effects, particularly Mario's voice. While Mario's jumps were traditionally accompanied by simple boings, Mario 64 introduces Mario's own voice to go with every jump and move. And while you could expect each physical action to be accompanied by grunts or other visceral noises, Mario actually screams with joy and excitement when he jumps around, even letting out an inspired yippee when you pull off a triple-jump. This is a clear indicator of how the player is always encouraged to have fun: Mario is obviously having fun, so nothing should stop the player from doing the same. Not only that, but when Mario gets hurt, burnt or falls from a considerable height he lets out a comical scream, and when he runs out of power during a level, he gets thrown out of it and lands on the floor with a reflective Mamma mia! You only need to listen to Mario for mere seconds to realize that what you should be doing is jumping around, bouncing off walls, trying crazy moves, playing with style... in other words, having fun.

Another element that is a staple of Mario games is progression through levels, which tend to be smaller parts of bigger worlds. Mario 64 keeps the levels-and-worlds concept intact while at the same time completely turning it on its head. Worlds in Mario 64 are represented by paintings, and levels by the different Stars that Mario may find in a given painting. However, where the levels used to be traditionally discreet and very well defined, Mario 64 makes them all coexist within the one world thus giving the player the power to choose which level to complete, or which Star to

find, within the world. And just as players have always had the chance to skip some worlds and levels in previous Mario games, the players are not required to visit all worlds and levels in Mario 64 - only enough to collect a minimum of Stars required to face Bowser. Thus we can see how the one element that fosters freedom and style the most within the game is actually pretty much in line with the design of the previous Mario games.

Something else that stays true to the Mario traditions, while still supporting the pillars of Super Mario 64, are the different suits that Mario dons during the game. While Mario suits started as mere power-ups like the power flower or the star, they evolved elegantly until they became an integral part of the Mario experience. Already in Super Mario Bros. 3 we saw how the leaf power-up enabled Mario to discover several secrets by allowing him to fly, in the same way that the frog suit let the player control Mario underwater with greater precision in order to not only make water levels easier to complete, but also allow him to find secrets underwater. This current of power-ups for exploration was continued during Super Mario World and brought to a climax in Mario 64, where the three available suits plus other smaller power-ups let Mario explore the marvels of the 3D world.

The main power-ups in Mario 64 are the Wing Cap, which lets Mario fly freely, the Metal Cap, which lets Mario walk on the bottom of the water and bypasses the need to breathe in that condition, and the Vanish Cap, which lets Mario traverse some obstacles. Additionally, Mario may ride on Koopa shells to avoid getting burnt or frozen by lava or icy water as well as ride whirlwinds, grab a ride on birds or grab onto jumping blocks. And what do all of these have in common? Well, they enable exploration and provide Mario with means to access new sections of the environments. Power-ups in the game are not about making Mario stronger, but rather about providing the player with tools to enhance the exploration of the different worlds. Moreover, the only way to access these power-ups is by deeply exploring the castle, in order to activate some of them, one must find the special switches hidden within the castle walls. By supporting exploration, a byproduct of freedom and style, the Mario suits support the same pillars we have mentioned before.

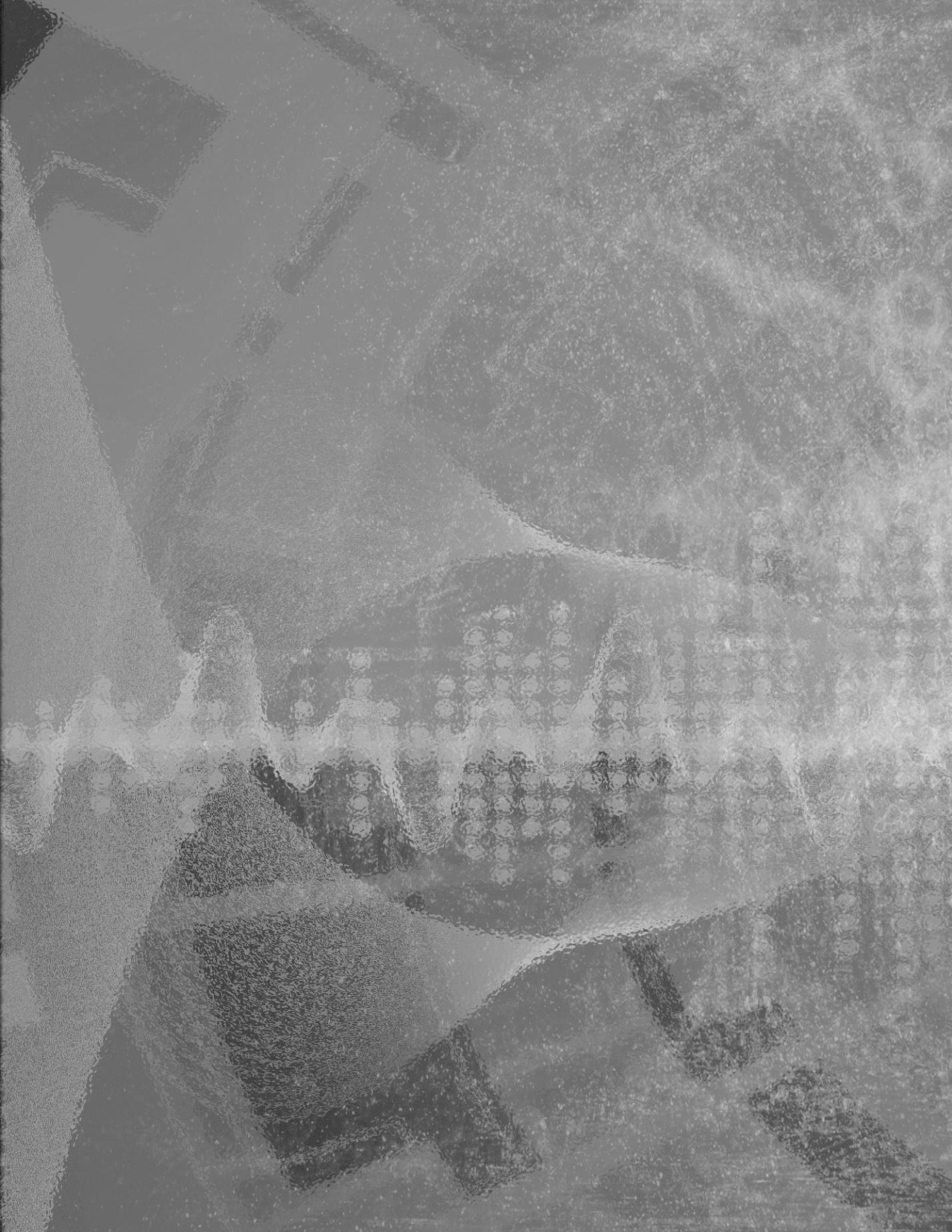
It is truly impressive to see how most of the core elements of Mario 64 can be traced back to an older Super Mario game. However, there is no recycling going on here - this is no doubt a complete evolution of the elements which had made Mario what it was until that point. The ubiquitous coins are there in Mario 64, with two Stars in every level being connected to them. The seemingly irrelevant but immensely fun secrets hidden in the levels of older Mario games (crouching for five seconds on top of the white block, anyone?) are also there, with some special spots sprouting hidden 1-Up mushrooms or some inconspicuous places serving as teleportation spots. The enemies are all there, cleverly redesigned to fit the 3D world. And the

impressive feedback is there, with Mario celebrating his successes along with the player. However, all of these elements are so intelligently redesigned that at first glance you might miss all the similarities altogether.

This is Mario 64 as seen through my eyes. It is not something I realized back in 1998, when all I could do was stare, baffled, at the screen. Back then I saw a huge mass of fun and gave into it without even thinking about what I was doing. But as the years passed, and especially after sucking every last ounce of fun out of Super Mario Galaxy, I revisited the N64 classic. First I did it unconsciously, in my head, listing it always along with Goldeneye and Ocarina of Time as one of the three N64 games that changed my life forever. But then I forced myself into analysis: I took the N64 controller, re-hooked the box, borrowed the game from my cousin (“where did my copy go!? Ja, can I borrow your copy? I swear swear swear nothing bad will happen to it”) and forced myself to find what I liked about it so much. What happened was that connections were remade in my brain - not only with Mario 64 memories, but with the whole Mario franchise. I saw the green numbers, as Neo would say, and I understood that the N64 masterpiece was just the sum of all of its predecessors. And then some. Then I attempted to narrow the genius of the game down to its core elements in order to write this piece, at which point it all took shape in my head. What I found at the very core I could only translate as freedom and style.

The combination of those strong pillars plus the reinvention of the elements that had made the franchise successful to that point made this one of those rare games where it all just fits. A rock solid game. This is not a game that leaves you thinking about that one moment, nor a game that has that one thing that sets it apart. This is one of those other rare games, the ones you enjoy from start to finish and when you're done you smile and feel like you have made a new friend. Hey there, game, we should totally hang out later.

And, as with friends, there comes a time when you must move on. To other games, to other platforms, to other genres. To other lives, to other cities. But when you meet again, in your living room, in your cousin's house or walking on the street, you immediately hug each other and remember all those fond times you spent together. You sit down and start sharing stories over drinks as if you had last seen each other only yesterday, and you feel a tinge of nostalgia as you reach into the past for your memories together and relive them for old times' sake.



“

Galcon is a stirring reminder of how videogames have the capacity to transcend pleasant distraction and entertainment and achieve something altogether more complex and wonderful.

”

FRANK LANTZ

GALCON

I hesitate to refer to Galcon as my favorite iPhone game. While it is my favorite iPhone game, and is perfectly suited to the iPhone, and many of its greatest qualities are directly related to the constraints and affordances of this platform, calling it an “iPhone game” implies a diminished scope entirely out of scale with my devotion to the game, to the amount of time and thought I have invested in it and the amount of time and thought it has given me in return. There are only a handful of games I have applied myself to with this amount of dedication – games like Poker and Go. Galcon is a game like these, it just happens to be on the iPhone.

And while I enthusiastically tell everyone who’ll listen that I love it and think it’s brilliant I’m slightly uncomfortable recommending it to people. The qualities that make Galcon lovable and brilliant are not easily seen. As with any deep competitive game, whether it’s Chess or Counterstrike or Tennis, these qualities reveal themselves over time and under certain conditions that require a lot of effort and dedication. If you are looking for pleasant distraction and entertainment (which, by the way, is an entirely reasonable thing to look for in a game) Galcon is probably not for you. But if you are looking for a new hobby, one that will reward hard work, deep thought, and patience, then Galcon is a stirring reminder of how videogames have the capacity to transcend pleasant distraction and entertainment and achieve something altogether more complex and wonderful.

So, having sufficiently raised and lowered your expectations, let me attempt to describe the game itself. Galcon is a strategy game in which players compete for control over a small map using fleets of units that move from location to location in real time. The game is lightly themed as galactic conquest, the locations are “planets” and the units are “ships”, but it is in fact almost entirely abstract. Planets are circles whose color indicates the current owner and ships are tiny colored triangles. When a match begins, each player has one starting planet containing 100 ships and the rest of the map is a handful of grey planets, each containing a random number of neutral ships.

You can select a planet you control and send ships from it to another planet. When one player’s ships arrive at another player’s planet, or a neutral planet, the attacking ships cancel out the ships on the planet one for one, so if the fleet you send is larger

than the number of ships already on the planet you will reduce the defending force to zero and then capture the planet with your remaining ships. Planets perpetually generate ships for their current owner, the larger the planet the faster it generates ships, so at its core the game is a race to capture planets and hold them in order to outproduce and ultimately overwhelm your opponents.

As you can see, Galcon is a highly simplified and miniaturized version of a familiar gameplay paradigm whose roots are in the classic genre of 4X computer games. In these games players explore a vast territory, expand their empire, exploit the resources they control to create combat units which they use to exterminate their opponents. And what I want to suggest is that it is precisely this process of simplification and miniaturization that is Galcon's greatest contribution. For in minimizing the size of the map, the complexity of the ruleset, and most importantly the length of a match, Galcon achieves something spectacular that lifts it up into the realm of greatness.

I have a lot to say about Galcon, but that's my main point - its greatness is almost entirely due to its small size. In an age of bloated videogame expressionism, in which each generation seeks to become ever more grandiose and baroque, Galcon demonstrates the enduring power of simplicity.

Watching a game of Galcon unfold is a striking visual experience. It is not a pretty game by any means – Euforia, a similar game that emerged on the indie scene around the same time as Galcon is far more visually sophisticated. Galcon's graphics are pragmatic – they are there to illustrate the state of the game to the players and little else. As it turns out, that's more than enough. Flocks of colored triangles erupt onto the screen, swarming between numbered circles which swallow them up and spit them out again. Attacking fleets explode in tiny flares against the surface of an opponent's planet, sometimes they engulf it, painting it from red to yellow or green to purple as the planet changes hands from one owner to another and back again. It's a gaudy inferno, a disco Armageddon. This is the way videogames should look – dense, inscrutable, alien, like teenage art from the future.

But the most beautiful thing about the visuals of a game of Galcon in action is the purity of its abstraction. The paper-thin theme of planets and ships disappears almost instantly and the game reveals itself for what it is – a real-time abstract strategy game. There are no brawny fighters throwing punches or stoic space marines lasering aliens, Galcon is pure pattern, a diagram of itself, an unfolding illustration of the particles and waves of the decisions-becoming-actions of its players. Its colored circles and overlapping flows resemble a Turing machine coming to life and devouring itself in a suicidal frenzy.

But the experience of playing Galcon is not about watching, it's about seeing, about processing this dense visual information into decisions and actions. Swept up in this process, the player becomes both hyper-aware and oblivious. In the heat of battle you are operating at the limits of conscious awareness, suspended between actions, drinking in more data than you can swallow, assessing, modeling, predicting. Both your fight-or-flight lizard brain and your higher executive functions have their cognitive throttles open so wide there is no room for anything else, no room for you in your own head.

It is a process of calculation, of calculus, of plotting numbers across distances and time. But it doesn't feel like math. It feels like physics - like juggling, or fencing, or fighting. The types of calculations you make when playing Galcon are so dense and happen so rapidly that they blur into a stream of consciousness that feels haptic, tactile, physical, rather than analytical.

I have never participated in a Sumo wrestling match, but that's what Galcon feels like to me. Massive force pivots around a cascade of split-second actions, grappling, seeking a foothold. Weight shifting, over-stepping, and slam! A momentary advantage explodes with exponential force to send your opponent out of the ring.

This alchemical transposition, of number into weight and force, of discrete quantities into physical flows, is a striking feature of Galcon, but it is not unique to Galcon. It is a key feature of many games, possibly most games. Throwing a baseball is action, pure and simple. But under the hood of that throw is a ribbon of micro-decisions, some we are aware of, some operating just below the surface of conscious thought, and some buried deep in the machine code of our nervous system. Decision or action? Games are built out of these ingredients, and mostly treat them as distinct, opposing categories, just as common sense does. But games can also, through compression, acceleration, and magnification, show us the point at which these opposing categories meet and blur together – thought and action, discrete and continuous, particle and wave, not in the world beyond our eyes, but in the one behind them.

The experiential quality I have described above, the empty fullness of a brain engulfed in Galcon, is different from the experience of a brain learning to play Galcon. And, like any serious competitive game, if you want to attempt to play at an expert level you must always be learning. Learning involves losing, over and over again, first to the AI, then to other players online. And here again Galcon's small size pays tremendous dividends. Many matches are over in a minute or less, and because there is no hidden information in Galcon, every second of that minute is packed with information you can use to improve your play.

The learning player begins with conscious calculation, devising plans that feel like plans and techniques that feel like techniques. The plans and techniques that work become heuristics, rules-of-thumb, applied deliberately at first, and then, slowly, assembled together into bundles that become second nature. Now the mind pulls back to consider larger issues as the techniques that used to occupy it become effortless. At this stage larger patterns become visible: the difference between playing fast (reckless, aggressive) and playing slow (cautious, defensive) and the appropriate time for each, the direction of play, the importance of geography, and other high-level strategic concepts.

This is the process of learning Galcon or any great game - ideas are first developed consciously and applied deliberately and then bundled together into cognitive chunks which then become the building blocks of new ideas at a higher level and so on, and so on. And the experience of moving up this ladder from calculation to intuition is a special kind of magic that only games can provide. It is thinking as an artform, an opportunity to contemplate and admire the operation of our own minds, the stuff out of which contemplation and admiration are constructed. It is thought made visible to itself.

But how have I gotten this far without talking about the curious case of 3-player Galcon? Basically, everything I've mentioned up to now is prelude, or footnote, to this.

Galcon's slogan is Strategy, Diplomacy, Destruction. We've covered the strategy and destruction, but how can a game this small, silent, and abstract contain enough room for diplomacy?

To understand the highly-charged social interactions of multiplayer Galcon we must begin by considering the kingmaker problem. Kingmaker is a situation that can arise in any multiplayer strategy game in which one player can determine, through his actions, which of his opponents will win.

There are 2 modes of free-for-all multiplayer Galcon: 4-player and 3-player, and 3-player Galcon is pure kingmaker. With few exceptions, if player A attacks player B then player C will end up winning. Everybody knows it. Moreover, everybody knows that everybody knows it, and this social fact colors every aspect of the game. As a result, most 3-player Galcon matches turn into stubborn stand-offs, interminable endurance contests in which every player refuses to attack first. In fact, it is probably correct to say that 3-player Galcon is hopelessly broken.

So why not avoid 3-player matches entirely and only play 4-player? Good idea, but even 4-player matches are fought under the specter of kingmaker, because at some point during the chaos of battle every 4-player match eventually becomes a 3-player match as one of the combatants is eliminated.

As a result, every game of free-for-all multiplayer Galcon is highly charged with social emotions. While the underlying mechanics are numerical and geometrical, the actual play experience is filled with threats and feints, shows of bravado, suicidal aggression, angry reprisals, fake surrenders, diplomatic gambits and counter-gambits, spiteful vengeance, offers of alliance, temporary cooperation, and cold-hearted betrayal. The strong prey mercilessly on the weak, and the weak gang up together against the strong.

Many games of Galcon end in anger and recriminations, cries of unfair! and how could he do that to me! But, to be honest, the messy, frustrating unpredictability of the social metagame is the secret ingredient that makes Galcon so compulsively addictive.

Not only does the emotional heat catalyze the game's cool calculation, but the chaos introduced by other players' behavior provides a compelling layer of randomness to the mix – every loss can be blamed on another player's foolish mistake, and every new match holds the promise that you might benefit from another player's blunder. The same effect can be seen in Poker which has a similar mix of analytical precision and social messiness. Moreover, like Poker, Galcon's metagame gives the expert player yet another layer of gameplay to master. Learning to predict and manipulate your opponents' social and emotional behavior is a challenging and rewarding exercise in Machiavellian dynamics.

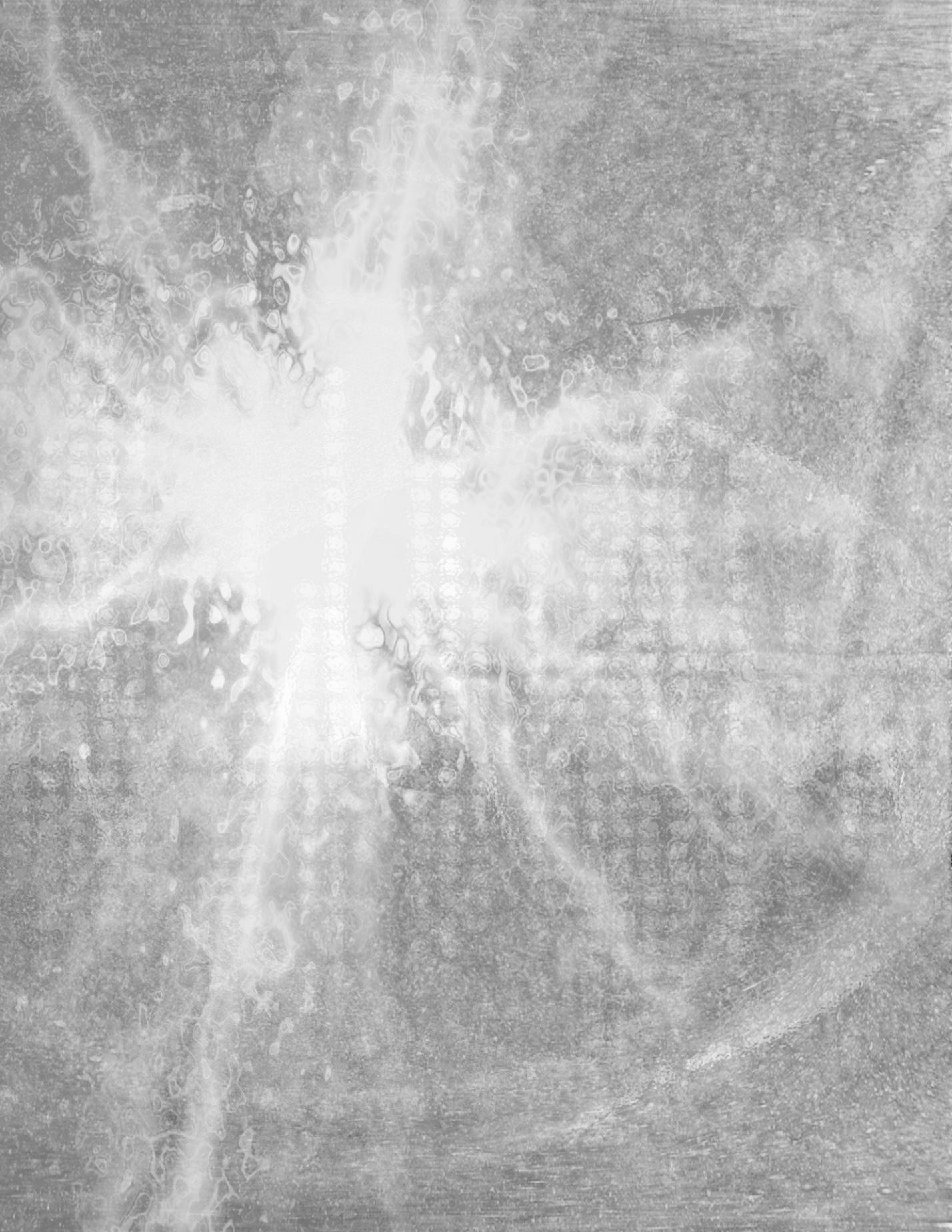
And the miraculous thing is that all of this tumultuous socio-political discourse is expressed through nothing but the flight of tiny triangles moving from circle to circle. There are no avatars, no expressions, no chat. The utterly minimalist palette of Galcon's game actions must carry all the force of the players' diplomatic communications.

Like everything else about Galcon, it is the game's small size and limited features that make it work. Chat would ruin the tension by making collusion explicit and allowing simmering resentment to boil over into abusive language. Most importantly, the tiny playfield and short match length help overcome the "flaw" of the kingmaker dynamic. No player would tolerate a half-hour strategy game that ended in arbitrary personal whim. But losing after just 30 seconds of hard work is no big deal. Moreover, a series of short Galcon matches becomes a game of iterated kingmaking. Choices I make this game reverberate through the next, punishment for betrayal can be doled out across multiple games, grudges carry forward, tendencies become pronounced, and what started out as totally unpredictable psycho-social dynamics begins to reveal subtle patterns. And patterns can be analyzed and calculated...

If strategy games can teach us about war, then Galcon is a masterclass that covers the full spectrum, from the primal addictions of aggression and danger through the cold-war dilemmas of mutually-assured destruction to the hallucinatory, computer-assisted hyper-awareness of the drone pilot's cognitive loops, and finally to the endless feedback of vengeance and reprisal whose waves never stop drowning us in oceans of madness and horror.

As video games seek to expand their scope, increase the breadth of their expressive power, and address important issues of morality, ethics, and the nature of the human soul, they would do well to study this small thing, Galcon. It is a permanent war I cannot escape, a war I can put in my pocket but cannot put out of my mind. But it is also the mind of war made visible to itself. It is a wonderful demonstration of the true power of games.





BIOGRAPHIES

Jorge Albor

Jorge Albor is a freelance writer and editor. Along with a co-creator Scott Juster, he maintains a blog and podcast available at www.experiencepoints.blogspot.com <<http://www.experiencepoints.blogspot.com>> . He is also a graduate student studying International Relations in the Bay Area. Along with numerous developers around the world, he aspires to cram his two passions together by contributing the growing “serious games” Industry.

Kirk Battle (L.B. Jeffries)

Kirk Battle

Kirk Battle is a law student from South Carolina who uses the pseudonym L.B. Jeffries on the internet. After majoring in English, he wandered around the resort scene in California, taught a little creative writing in Vermont, and ended up dead broke on the lower east side of Manhattan. A year of working for the government convinced him that there are some things worse than death so he took the LSAT. He continues to maintain his sanity and artistic sensibilities by posting a weekly on the PopMatters blog, ‘Moving Pixels’, providing game reviews, and whatever else captures his fancy.

Jay Bushman

Jay Bushman (www.jaybushman.com) is a platform-agnostic storyteller and transmedia producer. Under the banner of the Loose-Fish Project, he adapts classic stories to the net, included twitter reenactments of Star Wars and the Empire Strikes Back, a collaborative improvisational H.P. Lovecraft story and a group blog modernization of Spoon River Anthology. Jay co-manages the Transmedia Los Angeles meetup (<http://groups.google.com/group/transmedia-la>) and is a founding member of the Transmedia Artists Guild. (<http://www.transmediaguild.com/>)

Drew Davidson

Drew Davidson is a professor, producer and player of interactive media. His background spans academic, industry and professional worlds and he is interested in stories across texts, comics, games and other media. He is the Director of the Entertainment Technology Center – Pittsburgh at Carnegie Mellon University and the Editor of ETC Press. <http://waxebb.com/>

Stephen Jacobs

Stephen Jacobs is an Associate Professor in the Department of Interactive Games and Media and the Director of the Lab for Technological Literacy at the Rochester Institute of Technology where he teaches courses in game history, analysis, design and writing. He also currently serves as the Visiting Scholar at The International Center for the History of Electronic Games at the Strong National Museum of Play where he assists in exhibit design and collections interpretation.

Andy Jih

Andy Jih is a producer and game designer living and working in Pittsburgh, PA. He most recently was the VP of Production at Evil Genius Designs, a Pittsburgh start-up company focused on bridging the gap between game design and location-based entertainment through the use of mobile devices. Prior to Evil Genius Designs, Andy was a producer at Schell Games where he worked on projects ranging from Nintendo Wii titles and an original IP Nintendo DSi game to an interactive theme park attraction at Epcot.

Jesper Juul

Jesper Juul has been working with the development of video game theory since the late 1990's. An occasional game developer (including collaborations with Rasmus Keldorff), he is a visiting arts professor at the NYU Game Center, and has previously worked at the Singapore-MIT GAMBIT Lab at MIT and at the IT University of Copenhagen. His book *Half-Real* on video game theory was published by MIT press in 2005. His recent book *A Casual Revolution* examines how puzzle games, music games, and the Nintendo Wii are bringing video games to a new audience. He maintains the blog *The Ludologist* on "game research and other important things".

Rasmus Keldorff

Rasmus Keldorff is a game designer, artist, and developer. He has worked on several dozen online and download games while at planet.dk, LEGO, GameTrust, RealGames, and as single-man outfit RazorMouse; most notably "Shroomz" (Billboard Downloadable Game of the Year 2004). With Jesper Juul, he has collaborated on a handful of game projects to date, including *High Seas: The Family Fortune* (GameTrust 2007). He is currently consulting with MiniClip.com on upcoming multiplayer experiences, whilst working on new original concepts for social & touch games.

Frank Lantz

Frank Lantz is Creative Director and co-Founder of Area/Code, a New York based developer that creates cross-media, location-based, and large-scale social games. Before starting area/code, Frank was the director of game design at Gamelab, and worked as a game designer for POP&Co. For over 15 years, Frank has taught game design at NYU's Interactive Telecommunications Program, the School of Visual Arts, and the New School. He is currently the director of the NYU Game Center. His writings on games, technology and culture have appeared in a variety of publications.

Stone Librande

Currently working as Creative Director at EA/Maxis, Stone Librande, (M.S. MIT Media Laboratory, B.F.A. California Institute of Arts Film/Video School), has worked in a wide variety of technical and creative fields. He has been employed as an art director, video producer, software engineer and freelance illustrator. On weekends he is either teaching a game design course at Cogswell College in Sunnyvale, CA. or creating his own custom card and board games.

Ben Miller

Benjamin Nourse Miller is currently a game designer at Insomniac Games working on AAA console titles. Before starting his career in the videogame industry, he studied English and Computer Science at the University of Virginia. After graduation, he worked as an Educational Project Manager for a company that developed software to help treat congenital heart disease and was a freelance animator and web developer in his spare time. Deciding to pursue his lifelong dream of designing videogames, he attended Carnegie Mellon's Entertainment Technology Center where he helped create an interactive theatre production and iiiii design, www.iiiiiidesign.com, a small design collective that is currently exploring new areas of meaningful play on mobile devices. While not at Insomniac, he creates new, innovative videogames with talented friends, critiques most media he encounters, and always finds time for play. His favorite game is Ms. Pacman.

Follow him on twitter, [@noursemiller](https://twitter.com/noursemiller), or email him, benmiller45@gmail.com, about anything related to design or videogames. The extra curious are welcome to explore his portfolio website: www.rhetoricsend.net.

Oscar García Pañella

Oscar García Pañella holds a B.Sc. degree in Telecommunications, besides a M.Sc. and Ph. D degrees in Electronic Engineering, respectively, in 1995, 1998 and 2004, from La Salle School of Engineering in Ramon Llull University, Barcelona, Spain. His main Ph. D topic was an automatic simulation of deformable objects applied to Telemedicine, partially granted by the EPSON Ibérica's "Rosina Ribalta prize" for the best pre-doctoral project (1999). He's enjoyed several stages abroad, like at the IMSC (Integrated Media Systems Center) of the University of Southern California (USC, Los Angeles, California, USA) in 1997-1998, at the VIS Lab within The Henry Samueli School of Engineering (University of California at Irvine - UCI) in 2005, and at the Entertainment Technology Center located at Carnegie Mellon University (ETC @ CMU, Pittsburgh, PA, USA) during 2008-2009-2010.

He leads the Multimedia Section within the Media Technologies Research Group (GTM) at La Salle-URL since 2002, while directing the studies related to Multimedia (an undergraduate program in Multimedia Engineering plus a master program in Multimedia Design, Creation and Engineering).

Celia Pearce

Celia Pearce is a veteran interactive media designer, researcher and writer. She is currently is Assistant Professor of Digital Media in the School of Literature, Communication and Culture at Georgia Tech, where she also directs the Experimental Game Lab and the Emergent Game Group. She is the author of *Communities of Play: Emergent Cultures in Multiplayer Games and Virtual Worlds* (MIT 2009) as well as numerous papers and book chapters on multiplayer games, game art and games and gender. She has also curated new media exhibitions and is currently Festival Chair for IndieCade, an international independent games festival and showcase series. She is also a co-founder of Codename, an independent video game label, as well as Ludica, a women's game collective.

Sam Roberts

Sam Roberts is the Festival Director for IndieCade and a founding partner of Codename Games. Sam has unique hands-on expertise in building and operating independent game festivals and communities. He earned a B.S degree from Northwestern University, where he studied theater and cognitive science. He has worked in the entertainment industry as a writer, producer, director and designer in several media. He has also served on the managing board of several production companies, including the Sight Unseen Theater Group, of which he is currently a member. Sam is known among his friends as a stellar D&D GM, but watch out when playing against him: he's a vicious adversary.

Matthew Sakey

Matthew Sakey is a freelance games journalist, consultant, and industry analyst, and is a sought-after guest speaker at university games curricula and gaming conferences. For the past seven years he has been a featured monthly writer for International Game Developers Association, where he writes about the influence of gaming on culture in his column Culture Clash (www.igda.org/culture-clash). Matt also owns and maintains the popular gaming and entertainment website Tap-Repeatedly (<http://tap-repeatedly.com>), and works as an e-Learning developer, helping corporations bring games-based training to life. He lives in Michigan. Reach him at steerpike@tap-repeatedly.com.

Bobby Schweizer

Bobby Schweizer is a doctoral student in the Digital Media program at the Georgia Institute of Technology. He coordinates the Games and Spaces Research Group and studies videogames, theme parks, boardwalks, cities, and architecture. Bobby co-authored *_Newsgames: Journalism at Play_* with Ian Bogost and Simon Ferrari.

John Sharp

John Sharp is an interaction designer, game designer, art historian and educator. He has been involved in the creation and study of art and design for twenty years. John's design work is focused on social network games, artgames and non-digital games. His current research is focused on game design curriculum for after-school programs, the artgames movement, the history of play, and the early history of computer and video games.

John is a professor in the Interactive Design & Game Development department and the Art History department at the Savannah College of Art and Design-Atlanta. He is also a member of the game design collective Local No. 12, a group of academics including Mike Edwards (Research Faculty, Design & Technology, Parsons the New School for Design), Colleen Macklin (Associate Professor, Design & Technology, Parsons the New School for Design) and Eric Zimmerman (NYU Game Center) which focus on Twitter as a game and research platform. John is also a member of the Leisure Society, a group dedicated to the intersection of games, narrative and art. John is also a partner in Supercosm, where he focuses on interaction and game design for arts and education clients.

Lee Sheldon

Lee Sheldon has written and designed over 20 commercial video games and MMOs. His book *Character Development and Storytelling for Games* is required reading at many game developers and in game design programs at some of the world's most distinguished universities. Lee is a contributor to several books on video games including *Writing for Video Game Genres* from the IGDA, *Game Design: An Interactive Experience* and *Second Person*. He is cited in many publications; and is a regular lecturer and consultant on game design and writing in the US and abroad. Before his career in video games Lee wrote and produced over 200 popular television shows, including *Star Trek: The Next Generation*, *Charlie's Angels*, and *Cagney and Lacey*. Recently he consulted on *Danger Game*, a TV series in development for the SyFy Channel. As head writer of the daytime serial *Edge of Night* he received a nomination for best writing from the Writers Guild of America. Lee has been twice nominated for Edgar awards by the Mystery Writers of America. His first mystery novel, *Impossible Bliss*, was re-issued in 2004. Lee began his academic career in 2006 as a professor at Indiana University where he taught game design and screenwriting. At IU Lee instituted the practice of designing classes as multiplayer games; worked on the serious games *Quest Atlantis* and *Virtual Congress*; and wrote and designed the alternate reality games *The Skeleton Chase* and *Skeleton Chase 2: The Psychic* funded by the Robert Wood Johnson Foundation; and *Skeleton Chase 3: Warp Speed* funded by Coca-Cola. He continues as creative director of the narrative-driven MMO *Londontown*. In 2010 he joined Rensselaer Polytechnic Institute as Co-Director of the Games and Simulation Arts program. He is working on his third book, *The Multiplayer Classroom: Designing Coursework as a Game*, with another book to follow: *Practical Game Design: A Toolkit for Educators, Researchers and Corporations*. His first mystery novel, *Impossible Bliss*, was re-issued in 2004. He is also design consultant and lead writer on two commercial games currently in development based on the *Star Trek* universe. One is a casual browser-based MMO. The other is a Facebook game.

Brett Shelton

Brett uses a variety of mixed-method research approaches to study vision, perception, cognition, and the design and assessment of innovative technologies for learning. Other interests include immersive and interactive learning environments, data visualizations, open education, instructional simulations and educational gaming. He directs the IDIAS Institute which has projects based on the development of hand-held applications for learning, as well as virtual world training applications that use unique design attributes to facilitate after-action review and assessments.

Seth Sivak

Seth Sivak is currently a gameplay engineer and lecturer on games in Cambridge, MA. He received his undergraduate degree from Northeastern University in mechanical engineering and then traveled to Pittsburgh to attend the Carnegie Mellon University Entertainment Technology Center and study game programming. While there he worked on a new genre of game called an Active-Adventure (www.activeadventuregame.com <<http://www.activeadventuregame.com>>) and also spent a summer working at Walt Disney Imagineering. He hopes to become a professor someday and look deeper into the journey the player takes through a game. After graduation he has focused on social games and has helped develop many titles for the web and facebook platform. More information can be found at his website: www.sethsivak.com <<http://www.sethsivak.com>> .

Francisco Souki

Francisco was born in Caracas, Venezuela and currently works as a Game Designer in Pittsburgh, PA. He enjoys games of all kinds, European soccer and media-based, unconventional storytelling. If you wish to know more about him, Google might be a good starting point. <http://www.franciscosouki.com>

Matthew Weise

Matthew studied film production at the University of Wisconsin Milwaukee before coming to MIT to study videogames in the Comparative Media Studies program. After a brief stint in the games industry he returned to MIT as Lead Game Designer for the Singapore-MIT GAMBIT Game Lab, where he currently works with students and interns to create research-based games. His writing has appeared in various online and book publications, and tends to explore practices of film-to-game adaptation, in cases such as horror cinema, James Bond, and the Alien franchise. Matt's weekly writings can be found at his blog outsideyourheaven.blogspot.com and games he has collaborated on are available at gambit.mit.edu.

Jose P. Zagal

Dr. José P. Zagal is a game designer, scholar, and researcher. He is Assistant Professor at the College of Computing and Digital Media at DePaul University where he teaches game design, online communities, and ethics. His research work explores the development of frameworks for describing, analyzing, and understanding games from a critical perspective to help inform the design of better games. He is also interested in supporting games literacy through the use of collaborative learning environments. His book on this topic, "Ludoliteracy: Defining,

Understanding, and Supporting Games Education”, was recently published by ETC Press. Dr. Zagal is on the editorial board of the International Journal of Gaming and Computer-Mediated Simulations and the Journal of the Canadian Gaming Studies Organization. He is also a member of the executive board of the Digital Games Research Association (DiGRA). José received his PhD in computer science from Georgia Institute of Technology in 2008, his M.Sc. in engineering sciences and a B.S. in industrial engineering from Pontificia Universidad Católica de Chile in 1999 and 1997.

