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A journal on video games, value and meaning

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Assassin's Creed III: The Complete Unofficial Guide, a Teacher's Limited Edition

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100% Synchronization

A game in the sandbox genre is typically identified by its open atmosphere, variety of challenges, and its collections of hidden objects designed to force a player to explore the world to obtain "100% Synchronization" or to beat the game in its entirety. *Assassin's Creed III (ACIII)* is no different. Set in the age of the American Revolution, the game is built upon a sprawling landscape of colonial society, with everything a gamer could want from an open-world, action adventure game: naval combat, horseback chases, gunfights, a freedom to choose your own pace, a robust, narrative-based main mission line, and hundreds of bonus achievements, challenges and collectables.

ACIII does all of this, and it goes further to embrace a massive connection to factual representations of historically researched people, places and events throughout its plotline and extras. In his review of the ACIII, entitled "An alternate history, with footnotes", Martens (2012) describes in detail how the historical details included in the game outshine the actual game play. He suggests that because of the abundance of references and experiences tied to factual events, places, and people, the game "could be more fun to experience as a historical fact-checker than a player". It is exactly two of those types of players who present this well played reading of ACIII. Licensed as social studies educators, we sought out this game for the very purpose of diving deeply into its accuracies and inaccuracies with the goal of critically examining the game. We did so to gain a satisfaction at what content from the American Revolution it portrays accurately, and also to explore material where we could instruct youth to use the game to be critical of how history is told.

To be more precise of the position we took when we began playing this game, it must be understood that the difference between the historian and the history teacher is a difference in purpose. Both concern themselves with history and have a true passion and excitement for it. Historians, however, typically research and critique historic sources with an intent of building out a familiarity in regards to their area of expertise. Whether through writing, lectures, discussions and debates, their interactions are then shared and disseminated with peers who have both a similar interest in content as well as in the skills required to research successfully. On the other hand, history teachers, especially those in the elementary and secondary level in at-risk communities, must work with youth who might find their passion irrelevant and the skills required for uncovering historic truths unnecessary. The challenge for educators is to both study source material effectively and to resolve to replicate the research process with these youth in an innovative way. However, this is increasingly difficult for youth in an era of technology, video games, instant gratification and dissemination of information.

One solution is to approach the teaching of history in the same manner in which a large population of students is most engaged: through gaming. It is for this reason we were first drawn to *ACIII*. However, for this game to work with youth in a learning environment, it must first satisfy several criteria. McCall (2011) is an educator who has written about the effective use of historical simulation video games in the classroom, and he maintains historical simulation video games must have historical accuracies embedded deep in their core systems, and these core systems must provide "defensible models of historical systems" (McCall, 2011, p. 28).

While writing prior to the release of ACIII, McCall (2011) argued the

Assassin's Creed series largely misses on these to points. However, through our attempts to reach 100% Synchronization as both players and historical critics, we have decided *ACIII* does in fact deeply integrate historical accuracies into the core gameplay further than the previous titles in the series ever even attempted. Furthermore, we argue by design, the plot points and characters depicted by the game with greatest historical inaccuracies do so in moments of history where little primary evidence can be provided to their exactitude. In several interviews since the release of *ACIII*, chief scriptwriter, Corey May has acknowledged the use of unknowns and mystery in the game's design, and further continued to state he hoped players would have "the ability to explore some of the more nuanced elements of the founding of the United States (Clark, 2012).

In these moments of nuance and where historical truth is unclear, Gerwin (2009) argues youth can be critical of these moments, and consider pieces of evidence available with intent to make their own judgments about what might have actually happened. It is this application of critical judgment of the game and the history itself which makes *ACIII* a viable source to investigate. It is within this framework, which we would like to provide a close reading of the game from the experience of someone who is explicitly playing the game with a critical lens towards using it for the purpose of their own personal learning. And in an effort towards our own 100% Synchronization inside of the game and out, we will include both the tools we used to play, and our thoughts on using it as a tool for teaching youth.

ACIII: History Employed for Evil?

In *Assassin's Creed III*, the player takes on the role of Desmond Miles and engages in his battle against the Templar Knights. In order to succeed in this fight, the player (through Desmond) uses a machine called the Animus to recreate memories of Desmond's ancestors. In this story, there are two ancestors of important value to Desmond, and thus worth experiencing—first as Haytham Kenway and secondly, as his son, Connor. Haytham is an English-born nobleman, a leader of the Colonial Templars, and a fictional character. Connor is introduced later in the game, and is also fictional; however, his role makes up a larger percentage of the game play, and represents the primary set of eyes through which the events of the American Revolution are presented. The use of Connor, who is part English and part Kanien'keha:ka (or Mohawk), offers the player an opportunity to view a perspective not often experienced or studied during the time of the American Revolution. This allows the player to be critical of events in the game and out, and also for the designers to introduce key plot elements which play on the player's position on the outside (1).

Prior to the introduction of Connor Kenway, the early stages of the game introduce mostly fictional game play, though there are several bursts of historical content to observe. However, it is after the player first arrives in the colonies, where the open exploration of history is introduced. Immediately after debarking the ship, which carried the Haytham across the Atlantic, the player is greeted by a somewhat wily and old Benjamin Franklin who encourages the player to run around Colonial Boston looking for lost pages to his almanac. The pages are scattered throughout the different stages, and can be collected at any time.

This is the first of many challenges where the player is asked to explore the world at their leisure, and in doing so, to find hidden objects of varying value. The most hardcore players will seek out and hope to find all of these items in order to further progress towards 100% Synchronization. Items hidden throughout the game include the almanac pages, synchronizations points, trinkets, treasure chests, feathers, and caves. While the task of locating these items offers little historical value to the critical player, the task of surveying their surroundings encourages the player to be constantly investigating everything they encounter in the vast environments of Boston and New York, as well as the frontier and naval stages. The designers *ACIII* greatly reward those players who do take time to explore their surroundings in this way. The environment itself is per-

haps one of the greatest assets the game possesses. Being able to show the expansive and incredibly detailed account of Colonial Boston, New York, and the wilderness beyond their borders is an opportunity not to be taken lightly. While an impressive environment was present in previous games, it is truly highlighted in ACIII. The attention to detail on the buildings, wildness throughout the wilderness, and navigation of ships across the Atlantic Ocean is incredible. The synchronization points hidden at the top of steeples and towers scattered throughout provide an opportunity to look out on panoramas and see, a near match to what the people living during that time experienced (Clark, 2012). Exceptional views the player cannot miss include the mass of ships docked in the port, smoke stacks rising above low level buildings, churches, businesses, and the sea of "Red Coats" and "Loyalists" below. For the historian, there is no greater thrill than being able to place yourself amidst the history you study. For players, these breathtaking viewpoints encourage further reason to explore and engage in the environment.

The environment presents a visually appealing and historically accurate setting for the game to take place. However, in order for the game to sincerely appease the historical critical player there must be a strong emphasis on historical content built within the missions. While the game's major characters and storyline are fictional it is closely intertwined with historical events, characters, and details.

ACIII: The Official, Official Guide

In order to complete the missions of the main storyline, and for our own quest for 100% Synchronization, we sought out the help of the accompanying guidebook, *Assassin's Creed: The Complete Official Guide, Collector's Edition*. Designed and published by Piggyback interactive Limited, the collector's edition guidebook fully complimented our game play. The animations used in its pages to guide a player through a particularly challenging mission are well designed and innovative (see Figure 1).



When you are ready to brigin, travel to Paul Revere's house at the waypoint in Boston. Play resumes in the Frontier area, with the two sharing a horse. You can tap **th** (12) to ask Revere for directions during the journey... or follow our annotated map for precise guidance. Each number corresponds to an important step covered in the walkthrough entries that follow: you start, naturally, at position 1.



 Figure 1: The use of arrows and recreated maps to guide a player to navigate

follow a faint trail that can be hard to see at first; look for it in the position shown.

Boston both in game and in history.

O/O. When the cutscene ends, continue along the path. You can cut through

As an added bonus, the guide provides ample supplementary material surrounding both the design of *ACIII*, and its relevant historical plot points. There is an entire section entitled history vs story dedicated to uncovering the mysteries of the different plot points. Vetted by May, the lead scriptwriter, this section provides beautiful detail to the historical critic of this game. It is through material provided by May in this section that we were able to break down some of the most intense plot points and critical historical junctures of the game.

Charles Lee

Outside of Assassin's Creed, Charles Lee was a British soldier and general in the Continental Army, and these same details of his life are present in the game. *ACIII* then takes particular unknown aspects of his life and exaggerates them to fit the story. During gameplay as Connor Haytham, the player is constantly battling Lee over a variety of issues, including control of the land where Haytham's people reside. It is also revealed that Lee is actually a Templar Knight (one of a number of characters who represent this more fictitious plotline in the game). As a Templar, Lee is implicated, along with another character Thomas Hickey, in an assassination attempt of George Washington and other plots to undermine the efforts of the American Revolution. While this plotline might not reflect historical accuracy, May acknowledged how this fits inline with some unknowns about Lee and his inability to precede Washington as commander-in-chief (Beatty & Pargney, 2012, p. 333) (see Figure 2). By using Lee as an enemy to Washington, the game exploits an unknown about Lee-that he was a poor politician and political entity, and a more aggressive military leader than Washington-to further the plot of the game. This gives historical critics an exemplary opportunity to first examine the accuracy of the game, and then to be cautious of widely held notions about Lee and Washington.



Figure 2: The Truth about Charles Lee as described by scriptwriter Corey May.

The Boston Massacre

Historical events, too, are exaggerated when necessary to intertwine with the story. The events leading up to and causing the Boston Massacre provide another unique opportunity to critique both the game and the traditional telling of the history of the event itself. Historians have widely debated who instigated the blood bath, but it is known that several civilians were killed and wounded at the hands of British regulars stationed in Boston on March 5, 1770. In *ACIII*, the massacre is triggered by Templars in order to frame Connor Haytham, though the reason for this framing is unclear to the player at the time of the incident (see Figure 3). This reflects the many unknowns surrounding the actual cause for the firing outburst, and by design, May stated in the collector's guide, the use of a fictional character like the Templar to instigate the carnage "puts an end to the discussion about 'who started it' (Beatty & Pargney, 2012, p. 322).



Figure 3: The start of Boston Massacre remains controversial in ACIII.

Assassin's Creed: Revelations

Assassin's Creed III, and our quest as educators to reach 100% synchronization uncovered many truths and mysteries surrounding the American Revolution. There are far more missions and characters than we can describe here which incorporate connections between fiction and non-fiction. It is the challenge for the player, and also the learning opportunity, for to focus on the analysis of these characters and events much like they would any other historical source to determine the bias and agenda behind the design of what is being studied. Players might focus on different controversial elements, and having to differentiate between historically accurate and fictional events in this way is higher order thinking that requires research and an analysis of primary and secondary documents with a focus on uncovering these biases and agendas. Analysis on the scale provided by *ACIII* when a player attempts to reach 100% Synchronization simply does not take place amongst novice historians and researchers, especially when information is provided to the students through many other source documents and readings. Even if given the exhaustive list of primary and secondary sources used by the research team when designing this game, it would only be possible for the extreme experts of the era to uncover the details provided so plainly inside the game world to the player.

Endnotes

(1) The research efforts put into developing Connor's character are wide ly discussed online, and are discussed heavily in the interview with Clark (2012). Efforts to maintain cultural relevancy and accuracy included the full-time employment of a historian knowledgeable in Kanien'keha:ka culture as well as traditional Mohawk speak ers for the voice over rolls.

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Fiasco and Failure: Uncovering Hidden Rules in a Story Game

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Note: An earlier version of this paper appeared in the proceedings of the 2013 Games+Learning+Society 9.0 conference.

"*Fiasco* is a game that is fun; it helps you to imagine. I hope you have fun while everything goes wrong."

— Wil Wheaton (in Morningstar & Segedy, 2011)

Why tabletop games?

In recent years, the field of games and learning has made significant inroads into understanding the connections between play activities and learning practices. As a games and learning researcher, I have personally focused on the forms of digitally-mediated learning that have, to date, been largely the focus of contemporary games and learning research (c.f., work such as Simkins', 2011, analysis of ethical reasoning in live action role-playing games). *Well-Played* has followed a similar trajectory — of the previous 19 papers published in *Well-Played* since its transition from a book series to a journal, one might argue that Stein's (2012) discussion of his personal engagement with baseball represents the journal's first attempt to wrestle with "well play" in contexts that were not primarily mediated by a screen.

Both the game studies and games and learning fields have inordinately focused on *digital* games — of the papers presented at the Games+Learning+Society conferences (the conference for which this paper was originally drafted), the vast majority have involved computer, console, and

mobile games, with only a fraction of the body of research being devoted to understanding the ways that games and play occur in other forms. Though the rhetoric of contemporary digital game studies is one in which research on digital game play is often put into context with many other forms of play (e.g., Salen & Zimmerman, 2004), it's time for these communities to spend effort investigating more than the structures and mechanics of these games, but also the experiences that they afford which may not be easily captured in digital formats.

In this paper, I attempt to broaden the focus of gaming experiences analyzed in *Well-Played* as well as start us on the path of developing understandings of the meaning of narrative, collaborative games. Toward this end, I have focused on a story-based, tabletop role-playing game: Fiasco, created by game designer Jason Morningstar (Morningstar, 2009). Fiasco provides us with a number of interesting and unique features that make it worth investigating in this context, and illustrates a number of potential mechanics that provide provocative instigations to the gamebased learning community. In particular, I focus on the game as system in which a collaborative narrative is created by its players, as well as one in which *failure* is featured — not just as an acceptable outcome, but as the ideal one. As Wil Wheaton's quote from The Fiasco Companion (Morningstar & Segedy, 2011) indicates, the fun of "everything going wrong" is a central component of this game. I argue that *Fiasco* provides a distinct contrast to the forms of play that often dominate mastery-based forms of game-based learning, and implicit conceptions of failure that have been argued as being central to understanding games (Juul, 2013).

At the same time, *Fiasco*'s rule structures (and, occasionally, lack thereof) provide challenges for us to make sense of from the perspective of game studies. As we think more deeply about the forms of play that are imbedded within such games, and the ways that an understanding of *Fiasco*'s game mechanics may only be part of the story. Is *Fiasco* best understood as a game or as some other kind of play experience? What hidden rules

and forms of interaction are needed to make a *Fiasco* session to go from just "played" to "well played"?

Please note: Throughout this paper, I will reference examples from a satirical *Fiasco* Playset created specifically for the University of Wisconsin-Madison's Games+Learning+Society 9.0 conference ("Games+Learning+Impropriety") which was illustrated by members of the audience during the session.¹

Story Games

Tabletop role-playing games have been extensively studied for decades, since shortly after their genesis out of Dave Arneson and Gary Gygax's wargaming group in the early 1970s (see Peterson's, 2012, exhaustive history of the early days of role-playng games). Now-classic studies of performance and role-play within early games such as *Dungeons & Dragons* (*D&D*; see Fine's, 1983, classic sociological study of these games) have continued through to the present day, with investigations of many of the popular successors to the early reign of *D&D*, such as White Wolf's "World of Darkness" games, including *Vampire: The Masquerade* and *Mage: The Ascension* (Bowman, 2010). While the popularity of tabletop role-playing games (RPGs) and their cultural cachet have changed over the past four decades, recently the forms of games played by role-playing communities have exploded beyond traditional tabletop systems into a wide variety of performance-based and story-creation games.

Within the past decade, the appellation of "story game" has become increasingly used for a particular kind of role-playing game experience. The term "story game" has been applied to any number of games that foster a story-building or narrative creation focus, such as the card game *Once Upon a Time*, or to a form of play with commercial role-playing tabletop games in which gamemasters and players focus on the creation of interesting, fun stories rather than the adherence to large sets of system rules. Perhaps as a reaction to the past decade's emphasis of miniature gaming

as a key element of many fantasy role-playing experiences — *Dungeons & Dragons* versions 3.5 and 4.0, as well as Paizo Publishing's now-dominant *Pathfinder* franchise — or perhaps due to the widening understanding of Nordic live-action role play experimentation (e.g., Jeepform described at Jeepen.org, 2013; see Stark's, 2012, overview of larp), a panoply of new, narrative-based games have arisen within the past decade. Players of and proponents of these games often connect with one another through traditional face-to-face spaces for role-playing games (e.g., gaming conventions such as GenCon and Origins), but also in online affinity spaces (Gee, 2005; Hayes & Duncan, 2012; for example, the community at http://story-games.com and an active Google+ story games community).

At the time of this paper's writing, story-games.com's subtitle is a wry "Writing Sad Things on Index Cards" (story-games.com, 2013), which reflects both a change in tone and material for the contemporary story game. Moving past traditional "heroic adventure" tropes, many story games address a wide range of narrative inspirations, from simulating a Shakespearean drama (e.g., Mark Diaz Truman's, The Play's the Thing) to simulating community-building and struggle in a post-apocalyptic community (e.g., Joe McDaldno's The Quiet Year) to embodying a specific historical moment (e.g., Frederik Jensen's Montsegur 1244). Additionally, utilizing a limited set of game materials compared to other, more complex role-playing games which now often require maps, miniatures, and several forms of polyhedral dice, many story games will rely entirely upon common six-sided dice, and involve players and gamemasters in creating new character information and maps on sheets of paper or index cards on the fly. Compared to the standard bearers of the tabletop role-playing game genre, story games experiment with both game pieces (poker chips or pennies, as in Paul Tevis's A Penny For My Thoughts), dice (often six-sided, but with occasional inclusion of other polyhedral dice, such as in Sage LaTorra and Adam Koebel's Dungeon World; LaTorra & Koebel), or unusual replacements for decision-making mechanics (such as Impossible Dream's appropriation of Leslie Scott's board game Jenga[®] in their

horror game Dread).

For the most part, story games seem to eschew complex dice calculations and miniature play for games that emphasize role-play and collaborative story development. Though still considered role-playing games by many, the "story game" has innovated through connection to traditions in improvisational theater, as well as international developments in live-action role-play. While it has been only four years since its publication, *Fiasco* is, by many measures, one of the most popular of these "story games," and is currently the #2 ranked role-playing game on RPGGeek (RPGGeek, 2013). But, most importantly, *Fiasco* represents an interesting attempt to create both a simulation of a particular kind of story, as well as a game experience that can constrain and facilitate that simulation.

How to Create a Fiasco

After many years of development, *Fiasco* was published by Bully Pulpit Games in 2009, an independent role-playing game company run by Morningstar and his frequent editor, Steve Segedy. Morningstar has developed other narrative-based role-playing games, before and after *Fiasco*, including *The Grey Ranks, The Shab Al-Hiri Roach*, and the recent *Durance*, accruing acclaim for his innovative approaches to the role-playing game form. With a playful approach that takes improvisation quite seriously, and often involves settings drawn from historical moments (the aforementioned *The Grey Ranks* and *The Shab Al-Hiri Roach*, but also his *The Last Train Out of Warsaw*), Morningstar has developed games that seem to tread the lines between serious and whimsical, historical and innovative.

The theme of *Fiasco* is provocatively unusual for most tabletop role-playing games, which have historically been dominated by the fantasy, science fiction, and adventure genres (c.f. the aforementioned traditions in Nordic larp, which can range quite widely in theme). *Fiasco* is part of a thematic tradition in story games in which familiar television or film tropes (e.g., Diaz Truman's *Our Last Best Hope*, which models heroic disaster movies) are modeled to some extent. In *Fiasco*, players collaboratively create new characters to enact a particular kind of story befitting many film noir films, or the chaotic (and often darkly humorous) situations found in many of the films of Joel and Ethan Coen.

In *Fiasco*, every game session begins with a character- and setting-creation exercise, initially based on the guidance of a minimalistic "Playset" consisting of 144 options, each of which represents a nugget that can be used to ground a part of the collaborative narrative. A "Playset" consists of a set of potentialities for a game session — while certain objects, and even character names may persist between sessions, each group of players and random rolls of dice at the beginning of a particular play session will likely yield very different stories. As a role-playing game, the emphasis is decidedly upon creating, playing, and developing characters on the fly through the course of play of a group-built narrative, and not on the play of a pre-set story and setting.

Fiasco's materials are quite minimalistic: The game does not require multiple types of polyhedral dice, miniatures, or graph paper. There are no "player classes," no statistics to keep track of, nor additional "levels" for players to attempt to achieve. All that is required to play is a set of standard six-sided dice — four dice per player, two light and two dark — as well as blank index cards and pens. After creating characters (during "The Setup" stage), players act out a series of scenes, creating the story of the game with one another, dealing with complications to the story added halfway through (at "The Tilt"). Unlike later stages which focus on the color of the dice, The Setup involves using their rolled values: players first roll all of the dice, then use the numbers rolled to choose elements from a Playset that will serve as the initial basis for their game.

Playsets are thematic and provide seeds for the settings, relationships, objects, and character needs that will drive the rest of the game. Those

created by Morningstar, Segedy, and other officially-released Playsets vary quite widely in theme, from "Tales of Suburbia," set in a 20th century suburban housing development to "London 1593," set in Elizabethan England. And, as the game is simple to adapt to multiple contexts, player-created Playsets abound, ranging from "All the Damn Time," in which all players play the same character at different times in his life to an adaptation of the complex, city-building, roguelike computer game *Dwarf Fortress*. Perhaps in an attempt to make the salacious themes of many of the game's original Playsets more palatable to a wider (and younger) audience, *The Fiasco Companion* includes additional Playsets such as the teen-centric "*Fiasco* High," which aim for a lighter tone.

Each Playset is broken into several sections, reflecting key constraints that will guide players in the creation of their own unique game experiences. Rather than adopt pre-set characters during The Setup, players use the dice to pick specific Playset components, typically "Relationships," "Needs," "Locations," and "Objects." These provide seeds for the creation of characters and the story tensions that guide the game session. For example, since each Playset component refers to the connection between two players in the game, a player may choose a "Relationship" of "Family > Longtime industry rivals" to place between herself and the player on her right, while the next player may choose to flesh out that relationship with a "Need" of "Revenge... for the downfall of Jaymie Ludlow." With just those two snippets — and the subsequent Relationships, Needs, Objects, and Locations chosen with other players at the table - players develop the barest outlines of characters, name them, and pick the settings and objects that will play a role in the evolving story. While there are no pre-set characters or storylines in Fiasco, note that Playsets often do include seeds of specific characters (e.g., "Jaymie Ludlow" in the present example) for players to interpret in whichever way fits the particular story that evolves through play.

It is important to note that with all Playsets, the goal of the game is to

develop a disastrous situation or set of situations that unravels through the course of play. After all, *Fiasco* is overtly a "game about powerful ambition and poor impulse control," as *Fiasco*'s promotional tagline teases. Once The Setup choices have been pinned down, players strive to maximize their character's goals (say, "wants revenge on his sister for her role in the accidental death of grad school crush Jaymie Ludlow"), while also acknowledging that a *failure* to achieve that goal may provide fodder for an even more enjoyable narrative experience for the group. This is a thematic element of *Fiasco* that evolves through play, and through the game's mechanics which can constrain character choices.

As stated earlier, the game has been described as a "Coen Brothers RPG," or as a story game that attempts to mimic the uniquely shambolic noirstyle narrative structure of many films by director/writers Ethan and Joel Coen, which include *Fargo, Blood Simple, Burn After Reading*, and *Barton Fink* and other similar exemplars in this film genre (such as A Simple Plan). While featuring much more freedom to shape the story than many traditional role-playing games, *Fiasco* enforces this structure through several simple yet elegant game mechanics. First and foremost, there is no "game master" or "dungeon master"; characters collectively, collaboratively, and sometimes competitively develop the unique storyline that evolves from the choices made during The Setup.

After The Setup, dice are returned to the center of the play space for use in the rest of the game. As scenes play out in the first half of the game, players proceed clockwise around the table, choosing to either "Establish," or describe a scene involving his or her character, naming other character(s) they wish to interact with, or to "Resolve," letting the other players describe the scene he or she must play out. For scenes in which the player chose Establish, others who are not involved in the scene use the color of the remaining dice (light or dark) to indicate how *they* would like the scene to end. For example, if the grad student character Jerry Kapowski confronted Professor Mary Jacobs about her knowledge of Jaymie Ludlow's murder with the hopes that she would acknowledge Jerry's suspicions that she was involved, all of the players other than Jerry's and Mary's would determine the outcome for Jerry *during the scene*, choosing to give Jerry a light die if they believe he should succeed in finding out more about what Mary knows, or a dark die if they believe he should not. In scenes in which the player chooses to "resolve," he or she determines the scene's outcome and picks the appropriately colored die. In both cases, the scene progresses until its logical end, incorporating the die choice into the story on the fly.

As the game evolves, so does the story, with consequential narrative choices made during each scene, tied to the allocation of dice. Each turn ends with the player receiving the die and giving it away in the first half of the game, and keeping it in the second half of the game. Accumulated dice are rolled again twice — first, halfway through the game, at which point the difference between light and dark totals drive the selection of complications ("The Tilt") that affect the second half of the game, such as "Tragedy: Death, out of the blue" or "Guilt: Someone panics." At the end of the game, accumulated dice are rolled once more and differences calculated again, for each player to describe what happens to their characters at the end of the story ("The Aftermath"). At this point, the game is over — there are no point totals, the characters do not proceed into another game scenario (c.f., Bully Pulpit's recent "American Disasters" Playsets), and the story has wrapped itself up.

The Mechanics, Dynamics, and Aesthetics of a Fiasco

One approach to developing an account of the "well-played" nature of *Fiasco* first involves isolating its components, then addressing the ways that the game's components lead to particular experiences by its players. I loosely adapt Hunicke, LeBlanc, and Zubek's (2004) "mechanics, dynamics, and aesthetics" or MDA approach toward this end, as a means of illustrating how the game's simple mechanics give rise to its complex and interesting collaborative narrative play. By focusing on elements of

the game's explicit and implicit rule systems (mechanics), one can see how the game develops second-order strategies and approaches (dynamics) that build a sense of "fun" (aesthetics) for its players. Of course, this is but one very rough approach to developing a "well played" account for a game — as I have previously argued (Duncan, 2013), multiple perspectives and multiple forms of interpretation are preferable for developing a nuanced account of a game's "well play." But, for starters, describing how the game's rules interact to model a particular narrative form may give us some insight into how *Fiasco* shapes and limits its players' experiences.

Mechanics

First off, it is surprising that such a compelling game experience can arise out of so *few* stated game mechanics. In comparison to most traditional tabletop role-playing games, the *Fiasco* rulebook is downright skimpy: It is only 130 pages long, and not split into "Gamemaster" versus "Player" sections or books. Like many story games, rules are seen somewhat as an encumbrance in *Fiasco*, and, as we'll see, the relatively few number of them are intended to shape, but not overly constrain the players' evolving narrative.

The most relevant of these mechanics for this paper are the game structures that embody *constraints* imposed upon players. For sake of developing a description of the interactions of these mechanics, I have labeled each below (using my own terminology, not Morningstar's), and have briefly described the role each mechanic takes through various stages of the game:

- *Dice Choices* Used in The Setup, the random dice roll at the beginning of the game provides players the opportunity to choose elements of their characters' stories (within constraints); players throughout the game choose light or dark dice to pass along to the player whose scene it is
- Establishing/Resolving Players choose whether or not they

will create the setting for a scene, and whether they or other players will determine its outcome (a light or a dark die)

- *Dice Transfers* During a scene, players give a participant in a scene a light or dark die to shape the direction the story should go; at the end of scenes in the first half of the game, the receiving player passes the die along to another player
- *Dice Calculations* At both The Tilt and The Aftermath, each player rolls accumulated dice, and calculates a difference between light and dark that affects the course of the rest of the game (in The Tilt) or the particular fate of their character (in The Aftermath).
- *Turns* All play proceeds clockwise, with each player taking two turns establishing or resolving before The Tilt, and then two turns afterwards, before The Aftermath.

These minimal mechanics drive the majority of *Fiasco*'s play, and appear designed to cleverly drive elements of the game that drive *narrative* choices of the players: choices made during The Setup, the choice of who chooses the outcome of scenes, which player accumulates which color dice, and how rolls of these accumulated dice impact the story. With only a few mechanics at play to constrain player activity, other elements of the game's narrative are left to the players' imaginations. In the context of the Games+Learning+Impropriety Playset, this may be finding out who is actually responsible for Jaymie Ludlow's murder, whether or not Jerry will be successful in stealing the \$69,105 of conference registration money, or perhaps finding out if Dr. Mary will finally bed the alluring game designer she had her eye on. The game's basic mechanics thus serve to drive a given story's development, but are not deterministic of any specific narrative, allowing players to insert their creative and performative interests into the evolving story.

Dynamics

One might wonder, then, how these few mechanics structure the activity

of the players so that a particular form of narrative is developed. How does a "*Fiasco*" evolve from these game mechanics? In what specific ways do these game mechanics interact to support and shape the particular form of collectively disastrous narrative that the game is intended to model? I argue that through the *interaction* of multiple base mechanics, we can see the development of a form of second-order dynamics that can illustrate the shaping of these narrative arcs.

One of the most critical interactions is between the mechanics of *Turns* and Dice Transfers. The most elegant enforcement of the narrative arc is through the simple reality of the limited supply of dice in the game there are four per player, two light and two dark, yielding 12 total dice in a 3-player game, 16 in a 4-player game, and so on. Fiasco's common pool of dice for all players is a limited resource for the entire group, used up through the course of deciding small-scale narrative choices (Dice Trans*fers*). It should be no surprise that as the number of dice in the central pool depletes, so does the flexibility of players to change the outcome of a subsequent scene: If characters tend to get what they want early in the game (players receiving light-colored dice), then the pool of remaining dice will be skewed dark for the latter half of the game, and vice versa. This often yields either a storyline in which "everything goes wrong" at the end, or "everything goes wrong" early on, with characters successfully dealing with the repercussions for the rest of the game. In practice, the game often banks on players getting their way near the beginning of a particular story, leaving a greater number of dark-colored dice for the end. Combined with incorporating story elements provided via the Tilt - or additional complications introduced halfway through the game the end of the game often features plans falling apart in entertaining and disastrous fashion (for the characters).

Compounding this, a disproportionate allocation of dice (*Die Transfers* interacting with *Establishing/Resolving*) leads to the chance that not all players end up with an equal number of dice, and thus a greater sub-

sequent chance that consequential *Die Calculations* will be under their influence. This is most clearly seen at The Tilt. The "give a die away" rule in the first half of the game thus becomes a randomizer that is critical for creating balance and variety in Tilt options. If all players ended up with two dice (two light, two dark, or one of each), then the probabilities of who will get to pick the Tilt items would be relatively flat; there are only so many combinations of dice rolls with such a limited palette of dice distributions. But the *Die Transfer* that takes place in the first half of the game throws a random element in for The Tilt. Some players may end up with just one die, some with three or even four or even six dice. The *Die Transfer* is not strategically consequential as much as it boosts the variety of potential outcomes at The Tilt.

Regardless, as the dice pool slowly depletes, a dynamic emerges that (in at least the best-played *Fiasco* sessions), conveys a sense of entertaining, collective doom to the players. There is no such thing as a "winner" in *Fiasco*, and the movement of dice in the game reinforces this for all players to see. Thus, the *collaborative* structure of the game begins to emerge through the crafting of an ideally coherent and fun narrative in which players' choices are simultaneously fodder for the development of the story and also signifiers of an inevitable, often hilarious catastrophe for the characters.

Aesthetics

Finally, we turn to the amorphous and vexed term "fun." The aesthetic of "fun through failure" pervades *Fiasco*, supported by these game mechanics and the collaborative narrative dynamics laid out above. The GM-less nature of *Fiasco* feeds an interesting mixture of individual and collective goals — how does one fairly play a character one has invested in, while also maximizing the sense of "fun" for all? The goal of the game is, in essence, to "create an entertaining story" in which everything goes to hell. And, as such, success in the game is to create a narrative in which "failure" of a sort is not a negative experience. But, why is failure "fun"? Aren't we, as gamers, supposed to view "failure" as a state to be overcome in our progressions toward increased skill and mastery within a game-based context (see Juul, 2013 or, in the context of games and learning, Ramirez, 2012)? While the predominant view of failure in digital game studies is as a challenge to overcome, master a new skills and strategies, and then re-attempt until success, this doesn't quite fit the bill for games such as *Fiasco*. Analyses of games often skew toward the mechanical, privileging the ludic elements of a game over the performative and narrative, an, it seems, that while an eye toward the mechanics of *Fiasco* can give us a sense of how the game's rules shape a particular kind of collaborative story-building, there is another key element of the game's "fun" that has not yet been discussed in detail.

Perhaps this is obvious to anyone invested in story games, but central to the "fun" of *Fiasco* is *role-play*, studied extensively in games from its earliest days (e.g., Fine, 1983) through recent digital forms (e.g., Simkins & Steinkuehler, 2008). Through the process of playing a character within a game of *Fiasco*, each player is faced with the critical tension between individual and collective narrative development. On each turn, players act within a scene with one or perhaps two other players at a time, and, at these moments, are responsible for following through with their characters' goals while also acknowledging the constraints determined by the dice. The social, contextual, and ultimately collaborative nature of role-playing a "well played" game of *Fiasco* is a joint creative enterprise, one in which not only are characters created anew each time the players roll the dice on a new Setup, but an entire world is crafted through their joint activity. And to satisfy the entire group, sacrifices must be made.

And so, perhaps, the "fun" of *Fiasco* evolves from the joy one can have in the push-and-pull of both collaborative narrative construction and individual character destruction, from balancing the individual goals of shaping a character with a story that can't end well for someone. A good game of *Fiasco* works as a temporary and fluid narrative space, one created for a just few hours to play around in and then part with willingly. There are ultimately no long-term consequences for the players, and the joys of causing fictional strife within the game space seem akin to what Gee discusses as a game-based "psychosocial moratorium" (Gee, 2003). I argue that a "well-played" game of *Fiasco* is, in some ways, like an improvisational, collaborative (and obviously much more transgressive) version of *The Sims* — one in which the simulation of a world and its people is recognized as a space in which one can tinker, improvise, imprint their knowledge of media (e.g., the tropes of Coen Brothers-style films) — then tear it all down for the sake of creating an entertaining group experience.

Fiasco's Hidden Rules

However, an MDA approach focuses perhaps inordinately on game rules and mechanics as determinants of a game experience. While often very useful as a prescriptive tool for the design of games — a task that the MDA approach has been repeatedly and effectively applied toward there is, as with all games, a set of social, cultural, and individual factors that influence the game experience. Are there elements of effective *Fiasco* play that aren't easily capturable with the MDA approach? How do *good* games of *Fiasco* develop? Can we begin to make sense of how the game might require certain experiences and dispositions of its players?

Morningstar developed an effective means to capture a particular kind of story through *Fiasco*'s character creation system and scene resolution systems. This does not speak to the quality of Playsets or their implementation in specific game sessions, however — *Fiasco* is as much a game *system* capable of supporting many different settings and characters as it is a game. Morningstar has stated that there is much variation in the quality of Playsets, much of which can be attributed to personal taste, as Playset quality is "quite subjective; what might be really fun for you might not be fun for me" (Figtree & Morningstar, 2013). But, beyond that, the implementation of a Playset often involves the previous experiences and the dispositions of the players to help craft a "well played" *Fiasco* session; players' previous gaming experiences and attitudes toward participation in the collaborative construction of a common narrative play roles in successful games.

The GM-less nature of *Fiasco* can be liberating for many, but uncomfortable for some, who expect to be players working through someone else's story. Or, the weight of narrative creation can be uncomfortable for some, especially players for whom "role-playing game" has been synonymous with the tracking elements (hit points, experience points, levels) that Morningstar eschewed for *Fiasco*'s heavy relationship-oriented design. For some, the "story game" genre allows for deep, performative forms of play that allow players to inhabit characters and take them into new and unexpected narrative territory. However, for others more deeply invested with games as mechanical systems, the design of *Fiasco*'s mechanics — which are as vehicles to develop the narrative — may cause friction between players. From personal experience, players who enter into a *Fiasco* game attempting to "beat" other players often end up interfering with the play of the group, and can thwart the overall success of the collaborative narrative play that the game affords.

This then raises the issue of what a good *group* of *Fiasco* players is like, and how preparation before play of the game is a factor in a given game's success. To understand the "well played" *Fiasco* game, we have to think a bit about Morningstar's intent to distribute the traditional story-building role in tabletop role-playing games to all of the players, and turn our attention to the assumptions built into the game regarding player attitudes and dispositions. In an extensive interview with blogger Peter Dyring-Olsen for his site *Hete Molevitten*, Morningstar elaborated briefly on these issues:

Dyring-Olsen: I notice that your three "Biggest" games – *The [Shab Al-Hiri] Roach, Grey Ranks* and *Fiasco* – all demand a certain social

responsibility or maturity in order to run smoothly ... *Fiasco* because the system doesn't really hold your hand in this matter. Do you agree with my assessment? What are your thoughts on it – and is it on purpose?

Morningstar: I think that is accurate, and it is on purpose only to the extent that I design what I like to play. So I never consciously considered these points, but they emerge, I think, because I want to play that way, and am surrounded by smart people who are capable of it. I am drawn to games that dispense authority more equally (in aggregate) because I love the GM [gamemaster] role and want to share that with my friends, allow them to be broadly inventive, and to let them all surprise me. (Dyring-Olsen & Morningstar, 2010).

And yet, as Dyring-Olsen implies, the "social responsibility" of players in *Fiasco* and other GM-less story games is heightened compared to, say, a game of 4th edition *Dungeons & Dragons*. Morningstar wished to leverage the "inventiveness" of all players, to "let them surprise" him and, presumably, the other players at the table. As with many story games, *Fiasco* players are empowered to take on the role of co-constructors of the game story, and are not simply consumers of a story created by only one of the players who has been given that role. Morningstar also acknowledges that he's "surrounded by smart people who are capable of it," and we should note that this implies a set of hidden social rules that may guide good *Fiasco* games.

As with all games in which players implement the rules of the game, *Fi-asco* works best when they are implemented by players who are along for the ride. With expectations that players contribute to the development of the story, as well as concomitant expectations that players strike a similar tone as the other players, the negotiation of *how* a group will play *Fiasco* is thus a hidden element of the game. This is often encouraged to take place before a particular game session, but is not encapsulated within the
formal mechanics of the game — and thus not given much space in the *Fiasco* rule boo. Players are left to either experiment and find out what kind of play works best for each group, or alternately to read suggestions from Morningstar and Segedy (some of which is included in *The Fiasco Companion*; Morningstar & Segedy, 2011). *Fiasco* is a simple and accessible game for newcomers, but for players who have been weaned on games in which the GM is responsible for uncovering a story as the game progresses, previous RPG experiences and expectations can get in the way.

This is to say, then, that perhaps story games such as *Fiasco* help to problematize and reveal what game studies scholarship even means by the term "role-playing game." For a *Well-Played* audience which has focused quite a bit on digital games, *Fiasco* sheds many of the mechanics and genre elements that make "RPGs" (both tabletop and digital) recognizable as such, while arguably forwarding a much more powerful and egalitarian perspective on "role-play" in games. Therefore, a full conception of the "well play" of *Fiasco* necessitates some thought about these genre expectations, how they influence the participation of its players, the collaborative experience of GM-less performative games, and how a mechanics, dynamics, and aesthetics perspective may only get us so far.

Moving forward with story games

This paper is, ultimately, not a complete conception of the "well play" of *Fiasco*, but represents a first dip into the world of story games and the narrative-based role-playing experiences that evolve from them. As a relative novice to these games, I am aware that I have represented only a fraction of the kinds of games within this design space, as well as introduced *Fiasco* without a particularly thorough description of all of the potential antecedents which gave rise to it (from Nordic larp traditions to Morningstar's admitted love of Jensen's *Montsegur 1244* to the recent rise in "structured freeform" games, e.g., Walton, 2006). Story games demand a deeper and more thorough history and analysis, but for the purposes of this paper, *Fiasco* reveals that there are elements of these games that

provide interesting examples of games serving as creative constraints.

And yet, even this cursory look at *Fiasco* provides us with a number of intriguing possibilities for understanding the "well play" of new, story-based, tabletop role-playing experiences. First, the MDA approach allows us to see that such games, minimal as they are, belie a complexity that arises from the interaction of multiple, small game mechanics. The "shape" of the narrative prescribed by *Fiasco* evolves as an interaction between the multiple uses of dice, the turn-based nature of the game, and the choices to establish or resolve scenes. These drive the game toward a conclusion that mimics a particular form of story is one of the successes of *Fiasco*. That the game also requires hidden expectations and attitudes of its players is not exactly a fault of the game, but is reflective of the ways that *Fiasco* (and many other story games) presents sets of game experiences crafted for members of an existing community; investigating the stated rules of a story game are not enough to understand it.

Finally, in terms of games and learning more broadly construed (the original impetus for this paper), *Fiasco* also presents a fascinating example of the ways that a minimal set of game mechanics can foster rich, collaborative dynamics, while providing productive a liberating sense of "fun" through failure. In most educational contexts, failure is clearly still seen as stigma. Progressive perspectives in the learning sciences (e.g., Kapur, 2008) have recently considered the potential of re-imagining failure as productive, mirrored by recent arguments regarding the nature of games (e.g., Juul, 2013). However, the hidden rules of *Fiasco* illustrate that there is much to be explored regarding failure not as an intermediary step on the path to learning with games, but as a narrative impetus for the game itself.

Failure is often still seen as a scaffold to foster some form of skill mastery, knowledge construction, or to serve as an impetus for future learning. I forward that *Fiasco* provides us a more subversive and provocative exam-

ple of "productive failure," where it serves not just as an impetus, but as a *liberating experience* — one that, simulated in the context of games, can give players a space to imagine characters and build worlds, all the while joyfully taking them apart. To focus on the "well play" of a game like *Fiasco* is thus to focus on role-play, story creation, and performance — not as add-ons to supplement a mechanical and rules-driven experience, but as the core experience itself. While we often focus on game's formal elements as determinants of a gameplay experience, *Fiasco* reminds us that games are much more than networks of rules.

Endnotes

(1) The full "Games+Learning+Impropriety" Playset is available for download as a PDF at http://playfulculturelab.org/games/GLS-*Fi asco*-Playset.pdf. This Playset is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.

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Ninja Gaiden Black and the Tutorial-Less Tutorial

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The Teaching Challenge

Ninja Gaiden Black's main character is a quick, agile ninja, not an ox-like warrior. In order to survive, the player must spend a large amount of time dodging and weaving, finding just the right time to strike. All of this requires a deep understanding of controls - not only of single buttons and what they do, but button combinations and when to use them. Modern games – both educational and commercial – use long tutorials that slowly walk players through movement and combat, using practice dummies or contrived scenarios, which tell the player how to move, but often lack a sense of experimentation from those early levels.

Instead of painstakingly instructing the player on how to navigate and conquer the virtual battlefield, Team Ninja, the game's developers, opted for a different teaching style – To make the beginning of the game an open sandbox, and make experimentation the basis of navigating levels and conquering enemies.

The Mini-Sandbox

The very first level of the game, the player stands in a riverbed. There are no enemies attacking the player, but also no instructions for where to go, or how to get there. So, the player simply has to press buttons and figure out how to move, how to jump, and how to get out of the riverbed. For a game that will later be very intense and require quick reflexes to survive, this beginning scene is surprisingly calm.



Figure 1: The Riverbed the player must escape from. No enemies! No chance of failure! ...But no instructions, either.

Ninja Gaiden Black is played on the Xbox or Xbox 360, so any input in the game is done via a gamepad. The gamepad has 11 buttons, a directional pad, and two analogue sticks, and pressing all of them in order to discover what happens on screen takes a small amount of time. Since the player knows all the buttons that could possibly affect the game space, she will most likely press them until she figures out how to proceed. In doing so, she will likely discover actions such as quick slashes, heavier attacks, and eventually, how to move around the space. Thus, these essential actions are 'figured out,' rather than taught through traditional instruction. This is more engaging for the player as well, as there is a sense of discovery to these actions.

The space is then structured to require combinations of button presses to navigate – The player must get out of a riverbed, but in some areas, she must hop over a gap, while in others she must run along walls to cross larger gaps. These more complex movements often come with a text description of what the player must do, but still lack the 'press A to jump' button-style explanation of tutorials. In other words, the game will tell the player that she can run along walls, but won't tell her what buttons to press.

Tutorials as Hints (and Sometimes as Backup)

While tutorials are minimal, they do appear when the game wishes to teach the player how to interact with certain types of geometry. For instance, the player character Ryu can run on water with the right button presses, and the player would not know to try that feat, so when the player first encounters the flowing river, a tutorial message explains how the ninja can run on water.

It's important to note, however, that when a prompt pops up, the player is often told what she can do, but not how to do it – The prompt merely serves as a way to guide the player's mind on how to proceed and beat an obstacle, without giving the player the solution.



Figure 2: Complex, terrain-specific instructions are explained as hints to the player – Note that the prompt does not explain how to run along the wall, only that it can be done.

It is worth noting that a few prompts do explicitly state buttons that should be pressed, particularly when it serves a combat function. For instance, the rolling dodge is a move that requires the player to understand not only how to block (pressing the left trigger) but also that when blocking, using the left analogue stick to move does not make the player character run, but rather roll, avoiding sword strikes. Right before one of the early combat scenarios, the player is told of this complex move via a text prompt. This move is complex, and it would be difficult to explain this without explicitly stating the buttons required, so the game makes sure to explain the buttons within the prompt. Since the player character's life may depend on understanding the move, more tutorial-styled explanations are given.

Elegant Controls Facilitate Experimentation

It is worth noting that experimentation would be much harder if this game was on a keyboard or touch interface – With more than 50 buttons to press or a more ambiguous blank space, the player wouldn't really know how to go about pressing buttons. With only 14 or so options, however, the player can mentally map successful feedback to specific buttons and remember them much more easily.

(It is important to note that, while not every educational game can be on a gamepad, what is important here is not the gamepad itself, but the fact that the player mentally sees only a few options for interaction. A touch screen broken up into a series of buttons or visually squared off areas could very well have the same effect.)

Much of the game's success can also be attributed to the smart controls. The game starts with industry-standard controls (movement via the left joystick, attacking and jumping via the face buttons), so the player doesn't have to un-learn the controls that they're used to. The game-specific controls, however, are designed so that the player doing one action can stumble upon another. For instance, when I first played *Ninja Gaiden Black*, I figured out how to roll accidentally when pressing button combinations, and realizing that using the left trigger when moving would result in a speedy roll. However, since no enemies were attacking me in the beginning riverbed level, I did not realize that holding the left trigger actually did anything more than enable rolling. However, when encountering my first set of enemies, I rolled, and the enemy slashed at where I was going to land. Yet, instead of getting hurt, my player character blocked – I had held down the trigger, intending to roll a second time, and that trigger caused a block. Because the designers thought to make 'defensive' movements (blocking and dodging) using the same modifier (the left trigger button), I could accidentally discover how to block, without being told.

Improvisation in Combat

Halfway through getting out of the riverbed, a few ninjas attack. The player can try out the attacks she has learned, and see that they have a solid effect. Thus, the traditional pattern of a beat-em-up is established, without actually instructing the player. But a curious thing happens – The enemy ninjas are aggressive. So aggressive, that they attack where they know the player is going to land when she rolls or jumps. The player now has to use jumping and rolling as an evasion tactic, or aggressively attack using moves discovered only minutes before. (If the player did not accidentally hit an 'attack' button during experimentation, they will likely flail about on the gamepad looking to discover the button at this point. Since the attacks are tied to the front buttons on the gamepad, they will likely be easy to discover, and the player will learn that way, instead.) This rapid processing of skills is a direct result of pressure by the game system, providing a negative feedback when the player is not at a high enough skill level. While there is a certain amount of skill necessary to get to this stage, once the player is at this stage, she can learn rapidly using this pressure-based experimentation.



Figure 3: Combat with Ninjas that mimic the player make the player very aware of her own strengths and weaknesses, lessons that can then be used to fight all sorts of enemies. Image source: http://videogames.techfresh.net/ ninja-gaiden-dragon-sword-trailer/

Finally, the enemy ninjas themselves use the exact same moves that the player performs. They can jump, dodge, and slash using the same moves that the player does, albeit a bit more basic Thus, if the player does not already know how to, say, jump off of a wall in order to dodge a blow, she will see the enemy do it, and realize that they could do that as well. (Similarly, she will know when dodging isn't a good idea, because she will catch a ninja leaving itself open to attack, and use it to kill her enemy. That's a lesson that's hard to forget!)

This leads to a sort of discovery by observation and mimicry, a way that the designers can secretly tell the player the best moves for getting out of any of the game's most dangerous scenarios. Once this first level is done, the player will be well equipped with a basic language of how to move, jump, dodge and strike, and will have built a solid game plan how to face the enemy in what could have been a frustratingly difficult game world. Later on, the enemies become monsters with more devastating fighting styles and attacks – yet the foundation that the player has gotten from surviving the first level with little instruction prepares them to face their enemies head on.

Takeaways for Educational Games

Ninja Gaiden Black does not seem like a great example of an educational game, but it is an excellent lesson in giving the player the ability to learn on her own terms. Many times, there is an attention barrier for more practiced players playing a game (educational or otherwise) - A game's first few levels often lack engagement due to rote item-by-item tutorials, which interrupt the flow of the game. Ninja Gaiden gives the player an open level and enough feedback for the player to learn to navigate it.

The solution, however, isn't simply refusing to tell the player how to play the game, as that would simply invite frustration! *Ninja Gaiden Black's* success is because of a design that limits the possibility of input, minimizes failure, and has a relatively high standard for success. In other words, the player needs to have an intuitive control scheme to experiment with, and feel free to experiment without the frustration of dying or being hindered because of not doing a specific combination. Yet, the experiments should mean something – once they've had that time to experiment, they should be tested on their discoveries, so that they understand what the reason is for learning this newfound skill, and cement it in their memories as ways to beat challenges.

As was mentioned previously, it is worth noting that button-press experimentation works best when there are a small set of buttons to press. If the game was on a touch screen, for instance, experimenting with movement would be much harder, as the player wouldn't be sure if they should tap screen space, or swipe with one or two or three fingers, or hold a finger on a point – The possibilities seem endless in comparison to 13 or so buttons and a few joysticks. However, that doesn't mean that a tablet game can't allow for experimentation. Buttons on the screen, or spaces that the player can visually sense are for pressing or swiping – those kinds of indicators give the player a sense of 'known possibility space,' letting the player not guess at how to create input, and get to the task of figuring out what inputs to actually make.

During this period of experimentation, it is important to provide strong feedback and rewards, and minimize negative punishments. The time for tests will come later – experiment spaces need to feel as free as possible. Once the player feels she is ready to continue, she will, but until then, she should be rewarded visually and mechanically with feedback that tells her how her inputs translate into actions.

According to the 'Just In Time' and 'Transfer' principles put forth by James Paul Gee in *What Video Games Have to Teach Us About Learning and Literacy* (2003), tests should come soon after one has learned a particular action or mechanic. It isn't necessary for tests to be difficult early on, but they should require a challenging level of engagement soon after the period of experimentation, so that the experiments feel like they were learned at a time when they were useful. If the player learns something by experimenting, yet doesn't have to use it for a while in a scenario that matters, she will likely forget it and move on to the other challenges that are present in the game. If the discovery is immediately transferrable, however, the player will transfer that knowledge to attacking new problems, and the period of experimentation will have yielded a lesson.

Conclusion

Ninja Gaiden Black is not hampered by its lack of tutorial, but strengthened by it. For such a 'hardcore,' punishing game, players learn to adapt to and conquer their surroundings and opponents fairly quickly through rapid digestion of information, largely because they are provided the means to act in order to discover their moves. *Ninja Gaiden Black* is not unique to this type of teaching-by-experimentation, nor is it the only style by which a designer can teach by experimentation. However, it is a stellar example of such a philosophy, and its lessons could be well applied to future games, educational or otherwise.

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Interaction Images Promote Character Identification in *Heavy Rain*

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Abstract

Our phenomenological study of *Heavy Rain* reveals the pleasure found in the discovery of the game's interaction schema and the immersion into each character that this somewhat paradoxically enables. This schema is presented through diegetic quick time events presented in a way that is faithful to the conditions the game characters find themselves in. The match between player action and character action contributes to the process of identification and serves to make the choices feel more real to the player. A new type of "interaction-image" is theorized as a hybrid of game action and controller options that invites the contemplation of the virtual, further reinforcing the process of identification with the game's characters. The interaction-image evolves from Deleuze's categorization of cinema images and their relationship to space and time.

Introduction

"How far are you prepared to go to save someone you love?" That is the question posed to Ethan Mars by his son's kidnapper in the game *Heavy Rain* (Quantic Dream 2010). It turns out that this question is more heavily loaded than its surface interpretation entails, due to its deeper implications for the player controlling him. *Heavy Rain*, produced by Quantic Dream and released for the PlayStation 3 in 2010, immerses players in a film noir-styled interactive narrative videogame with a plot that centers on investigating the "Origami Killer", and the difficult trials that the kidnapper forces upon Ethan to save his son. Players control the actions of four protagonists through the use of context sensitive commands during "quick time events" (QTE) with intricate controller combinations that

represent a rich motion vocabulary. Besides Ethan, these characters are Scott Shelby, a private investigator making his own inquiries, Norman Jayden, an FBI profiler who arrives to assist the local police, and Madison Paige, an investigative journalist. The game is broken into scenes in which the player directs a pre-designated character. Player choices have lasting repercussions in this intricately branching plot, including meaningful character death (Wei and Calvert 2010). The richness of the interaction scheme and its tight coupling with the characters' actions leads this to become the site of interactive pleasure for players. In fact, the controller maneuvers required of players replicates the on-screen action in a kind of physical mimesis that contributes to players experiencing identificatory fusion (Waggoner 2009, 37) with the characters. We found that *Heavy Rain* uses cinematic, narrative, and interactive interface techniques to support this process of identification.

Styled as the next generation of "interactive movie" (Chester 2009), Heavy Rain's cinematic qualities lend themselves to analysis by cinematic theory that explains how audiences respond to certain phenomena. Our analysis of *Heavy Rain* is grounded in Merleau-Ponty's existential phenomenology (Merleau-Ponty 2002) and the research methodology derived from his work. It proceeds through three phases: phenomenological description, where we find a reflective distance to focus our attention on our conscious experience of a phenomena; phenomenological reduction, where we come to an understanding of the qualified essence of the phenomena; and phenomenological interpretation, where we attempt to understand how the phenomena is connected with our consciousness (Sobchack 1992). After progressing through these phases, we found the core themes that characterized interaction within *Heavy Rain* to be: "interaction-images" elegantly depicting character choices, a continual revelation of character and narrative potential as we mastered the interaction scheme, and the playful but often challenging identification process with the characters thereby facilitated. As we played, a tight feedback loop with the characters emerged that oscillated between potential interactions and the results of our choices. This process of enacting character actions led us back to the original question posed to Ethan, "how far am I prepared to go?" The narrative theme of moral choices that underscores *Heavy Rain* further facilitated this by presenting legitimately difficult situations.

Throughout the game, interactive possibilities are displayed in diegetic space using a third-person perspective camera that frames characters and their choices, inviting players to closely identify with the process. *Heavy* Rain tends to constrain the camera, although players can typically access a long shot for ease of navigation during movement. The game camera also changes angles periodically to break up the scene in the same way as the cinematic technique of editing. Certain scenes however, such as character interaction, fully constrain the shot for better framing. At those times, potential actions in the environment are represented by white glyphs resembling the controller action required to initiate them. Dialogue possibilities and their requisite button press orbit the character. When R2 is held, internal thought processes that reveal inclinations and misgivings replace these dialogue choices. *Figure 1* is taken from an early scene (Chapter 9: Hassan's Shop) where Shelby is questioning the father of a previous victim when a robber bursts in. In this screenshot, the L1 and R1 shoulder buttons are held, keeping Shelby's hands in the air. Meanwhile, four mutually exclusive dialogue options dance around the screen, inviting the player to make a choice.



Figure 1: Shelby confronts a robber (*Source: Heavy Rain; Copyright: Sony Computer Entertainment 2010*)

We extend the framework of the cinema theorist Deleuze and call these composite images that characterize play in *Heavy Rain* "interaction-images". Their overall function is to establish a connection between character and player, based on how they reveal possibilities. The interactive choices available to players are blended into the game environment, fundamentally complicating their relationship. This effect captures a character's mental and physical state on screen and replicates the effect in a player's vision using fundamental cues such as motion. For example, in urgent situations, such as the one displayed in *Figure 1*, the options orbit the character faster and shake, nominally becoming less legible. The diegetic nature of these interaction-images produces a strong connection between character and player action.

Deleuze, Cinema, and Games

Deleuze's theories provide insight into the process of audiences relating to on-screen events as it occurs in cinema. In *Cinema 1*, Deleuze discusses

how classical narrative cinema is dominated by the "normal" functioning of the sensory-motor schema, which results in the primacy of what he calls the movement-image (Deleuze 1987). The "movement-image" is consistent with the classic Hollywood aesthetic that dominated theatrical cinema until its hegemony began to erode after World War II. This aesthetic privileged seamless narrative above all other cinematic variables. Film craft was dedicated to an absolute commitment to suspension of disbelief and transparent experience of plot and story. The constructive vehicle was the traditional continuity editing system, which provides rules for editing shots including when to cut and from which angles to film actors. The purpose of this system was to create a "realistic" and naturalist time and space, within which the development of plot-events could be observed with minimal ambiguity. Deleuze states that this mode of cinema is filled with direct representations of human activity that are captured and displayed rationally. Audiences understand them accordingly, expecting naturalistic causal relationships to apply.

After the Second World War, an alternative cinematic aesthetic was developed - particularly in the international cinemas such as those in France and Italy. Bordwell refers to this alternative aesthetic as "art cinema", a form that privileges the internal psychology of character and an associated ambiguity of plot over the determined and deterministic narrative of the classical Hollywood cinema. The art cinema "... defines itself explicitly against the classical narrative mode, and especially against the cause-effect linkage of events." (Bordwell, 2002, pg. 95) In this context, this is consistent with Deleuze's conception of the "time-image". The time-image describes scenes involving an interval that "provokes undecidable alternatives" (2003, 84) and opens the viewer up to the "virtual" - the realm of possibility. In them, the normal flow of time, chronos, is "destroyed" (p. 81), or at the least, "sick" (p. 120). This is contrasted with the movement-image, where "time is presented in its empiric form; successive moments." The intervals found within time-images are a "time of becoming, which does not so much follow empiric reality as have a

profound connection with thought. The time-image forces one to think the unthinkable, the impossible, the illogical and the irrational" (2003, 120).

Time-images are not sequentially determined like the traditional "movement-image", but dynamically situated at what Deleuze terms the "plane of immanence", where many divergent possibilities arise. Rodowick describes the plane of immanence as a place where "a stone is not a solid object but a mass that vibrates with molecular motion, absorbing or reflecting light, expanding with heat and contracting with cold" (1997, 31). Pisters identifies the power of the "molecular" to reveal important character attributes, especially those that may contrast with what she calls the molar or normative reading (2003, 58). The fluid quality of the "time-image" and its placement at the plane of immanence decouple the portrayal of character from the determinism of the classic narrative plot. This cinematic form places character at successive moments of choice, allowing for unexpected plot progression and outcomes. Closure is often refused, leaving the viewer to imagine the future choices the protagonist will face, and the open set of outcomes they may experience. This cinematic technique disconnects the player from the constant drive to move forward and achieve ludic supremacy and reconnects the player to the character's internal, narrative goals.

Heavy Rain similarly complicates temporal progression, particularly at the point of character interaction. Then, the on-screen action waits, briefly, as if the game is holding its breath in anticipation. This is what we see as the "interaction-image", a logical extension of Deleuze's cinematic constructs into an explicitly interactive environment. At these times, the characters' sensory-motor functions are distorted and they hold still as they await guidance. This works since gamers are already used to the gaps caused by waiting for interaction since many games apply different kinds of temporal logic. To explain these different logics, Waggoner supplements chronos – linear time – with kairos, a humanly constructed sense of time

based on subjective importance; in this system, "staged kairotic moments can be far apart in chronos" (2009, 60). Therefore, players' wanderings and delays need not affect major plot events, which are triggered when players confront them. The result is narrative freedom to pursue individual goals without disrupting the nasty fate that no doubt waits in natural chronological time.

This "kairotic" temporal logic frequently governs scenes in *Heavy Rain*. For example, in the first scene (Chapter 1: The Mall), shown in Figure 2, Ethan loses track of one of his sons, and runs through the mall, searching for Jason and his red balloon. The screen becomes blurry, and the sounds of footsteps and a quick heartbeat predominate as adrenaline surges through Ethan. We are given the option to call out for him, and we repeatedly press the button, uncertain whether it will make a difference, but feeling like it's the right thing to do. This goes on for an indefinite period of time as Ethan bumps into strangers and other children that he mistakes for Jason. The plot only progresses when we force Ethan to leave the mall, but this process stretches the moments of loss and frantic search in a compelling way.



Figure 2: Ethan searches for his son (*Source: Heavy Rain; Copyright: Sony Computer Entertainment 2010*)

Heavy Rain, Gameplay, and Story

Bogost calls this sense of prolonging one of the main strengths of Heavy *Rain*, even as it distances it from linear cinematic narrative editing (2010). Instead, it captures the "central sensations" of the experience - in this case, of losing a child in the mall. Later, in Chapter 3: Father and Son, it's Ethan's turn to take care of Shaun after the divorce that followed the loss of Jason. In the periods between helping Shaun with homework or preparing him food, Ethan sits and stares until the player uses the controller to make him stand up. Bogost claims, "the silent time between sitting and standing offers one of the only emotionally powerful moments in the entire game." For him, these moments invite the player to consider what Ethan might be thinking about, "to linger on the mundane instead of cutting to the consequential." For Bogost, then, this gap is filled through empathy for and contemplation of characters. This emotional weight was likewise present for us while watching Ethan brood. In this way, *Heavy Rain* resists linking narrative advancement entirely to movement, which Manovich states is frequently the case in contemporary video games, resulting in the transformation of the player into a kind of flaneur exploring the digital wilds (2001, 268). Instead, Heavy Rain complicates the position of the player by mingling it with the cinematic tradition of the spectator as voyeur, resulting in a complex hybrid.

This alternative temporal logic disrupts, but does not endlessly delay, which is critical to maintaining tension. In the scene displayed in *Figure 1*, Shelby may get shot if we wait too long to command him! According to Massumi, these moments are governed by affect (unqualified intensity) rather than specific emotion. This is the sensation that accompanies the beginning of a selection: "the incipience of mutually exclusive pathways of action and expression, all but one of which will be inhibited" (2002, 28). These buzzing options represent the "pressing crowd" of incipiencies and tendencies, the realm of potential. Massumi identifies this as Spinoza's "passional suspension" (2002, 31) or Deleuze's "emergence" (2002, 32). These affective moments are akin to a "critical point" or bifurcation point in quantum physics that "paradoxically embodies multiple and mutually exclusive potentials, only one of which is selected" (2002, 32). With this presentation of options, *Heavy Rain* makes literal what is usually left implicit in cinema.

Naturally, learning Heavy Rain's system of interaction is necessary. At times, especially near the beginning of the game, it's easy to fail sequences or take undesired actions due to the combination of controller unfamiliarity and time pressure. Over time, however, completing the complex command sequences became enjoyable, such as when Ethan squirms between arcing electrical transformers as part of a trial in Chapter 22: The Butterfly. Mactavish identifies the "close relationship between the progression of visual and auditory effect and increasingly difficult obstacles" as a strong structural agent (2002, 39): the reward for emerging from one obstacle is another one, often accompanied by "dazzling spectacle." Mactavish borrows Aarseths's dialectic of aphoria (formal, localizable roadblocks) and epiphany (sudden solutions) to account for this pleasure, while stressing the role that audio-visual spectacle plays in reinforcing this cycle. In *Heavy Rain*, this pattern is also demonstrated in Chapter 17: The Bear, a trial in which Ethan must drive the wrong way down the highway. As Ethan sits on the on-ramp, a cloud of anxious thoughts circles him and prepares players for high-stakes action. After revving the engine, shifting the clutch, and hitting the gas, Ethan's car began to rush down the highway. Cars sped around him, and we had to make choices rapidly. The result was a reasonable albeit exaggerated replication of driving. We rotated the controller left to avoid a highway worker, then right to dodge an oncoming car. Each of these choices showed as a "time-limited" option, so unlike sequences in a calm setting, quick reaction is required. Each time a command sequence is performed successfully, Ethan's car evades some disaster with a spray of sparks or a screech of tires. We felt like we were in an emergency situation, immersed in a situation where the ability to quickly assess the situation and react accordingly was put to the test.

Weinbren (2002) identifies this kind of situational "role-play" as the drive for mastery, one that is based on the ability to understand consistent rules such as an implementation of physical laws. Adaptability and familiarity with the game's consistent rules are privileged over the arbitrary tests of hand-eye dexterity that sometimes characterize games using QTE interaction systems. Heavy Rain's interaction model adds contextual action to familiar cinematic rules of scene construction, resulting in a uniquely paced experience. Exhilaration is one of the results that Weinbren identifies, and was something felt in Chapter 43: Face to Face, where Shelby gets his revenge on a mobster who ordered a hit by shooting his way into his mansion. The game features limited gun play, so it wasn't entirely clear a shoot-out was the inevitable result once Shelby burst in, gun drawn. In the previous chapters, the R2 button had sufficed for the occasional pistol shot, but here the game demanded timed presses of one of the four shoulder buttons, depending on where the enemy was located relative to Shelby. Unsure where the next foe would emerge, we perched over the controller; we positioned our fingers appropriately and blasted our way through. Shelby got winged a few times, but in the end he earned entrance to the goons' boss to ask his questions.

When it comes to action sequences, the deeply contextual nature of *Heavy Rain*'s interaction model comes to the forefront. In a given situation, the controller sequence players are required to perform is based on the relative physical positions of characters within the scene. These sequences are not random challenges to the players' capacity to react quickly. Instead, a mapping between the characters' positions and the physical controller is made. Our understanding of this was cemented in Chapter 26: The Golf Club, where Shelby plays golf with a man he is investigating. They discussed how skill in golf is based on the essential ability to grip the club properly. We then had to perform a combo sequence where we had to hold down buttons with both hands, then slowly raise the controller, and then quickly yank the controller downward. The in-game dialogue mirrors what we must do to control Shelby's golfing – mimic

essentials of grip control to make a successful shot.

The contextual nature of these controls can be demonstrated by comparing two action sequences involving journalist Madison Paige. In Chapter 10: Sleepless Night, we are first introduced to Paige as several intruders accost her in her apartment late at night. In the extended fight scene that ensues, the emphasis is on her attempt to escape and she only attacks out of opportunity or necessity, often using objects from her house to help her. In *Figure 3*, we have successfully gotten Paige's right arm loose and raised it (by holding the X button on the controller) and we must now free her left arm (using the Square button within the given time restriction).



Figure 3: Paige fights for her life (Source: Heavy Rain; Copyright: Sony Computer Entertainment 2010)

In Chapter 39: Sexy Girl, Paige slaps a sleazy club owner during an interrogation and in this more controlled sequence, the buttons required alternate between the left square and the right circle, depending on the hand she's about to use. She is in control in this scene, and the inputs are

not time-limited. Instead, they correspond to parts of her body rather than elements in the environment or an intruder's bodily attacks. Both physical and narrative context are therefore taken into account by the interaction scheme.

This contextual scheme is not without its weaknesses, and further demonstrates the necessity of mastering the system, or as Galloway (2006) puts it, learning the underlying algorithms of the game. Players must learn how Heavy Rain typically favours contextual consistency rather than object-based consistency. For example, some doors are opened with an upward motion on the control stick, while others require a downward motion, depending on where the characters hand is located or where the door's opening mechanism is located. The same motions can also used to put a car in gear or break a hold during a fight. The consistency is based on the required gesture as the game tries to map through to the real world. This mapping allows the game to create some expectations without pre-defining each character's total available actions as some games do (e.g. press X to Attack, press Y to Block). According to Galloway, games must be played to understand their grammar of action, whereby human activities are coded for machine parsing: video games create their own gestural grammars (2006, 3). The gestural grammar of *Heavy Rain* is deeply contextual and players must consider what is possible in the environment to respond to it. The rhythm of the game is created in *Heavy Rain's* equilibrium between diegetic machine and operator acts: the controller inputs are mapped and extended onto the environment.

Since *Heavy Rain* is designed as an interactive narrative, it's also vital that it conveys a rich and coherent story experience. *Heavy Rain* does so using a two-tiered branching structure, where decisions the player makes affect both the current scene and future scenes. Chapters are added or removed from the plot depending on player choices and whether a given character is alive or dead. The final interactive chapter, "The Old Warehouse", is the most complex and has at least 12 different potential scenarios (Wei and Calvert 2010) available. The epilogue of the game likewise selects from 18 cinematic cut-scenes (Wei and Calvert 2010). Learning how choices affect the narrative is also a significant aspect of learning the game's algorithmic nature. In fact, one of *Heavy Rain*'s strengths is its ability to handle player failure. We were unaccustomed to failure being an option that allows continued play, and therefore expected to "lose" the game multiple times. For example, when we failed Ethan's escape scene in Chapter 41: On the Loose and he was caught by the cops for the second time, Ethan was incarcerated as a suspect for the rest of the game. We then continued playing the game without him as a playable character.

This process of scene selection corresponds to what Manovich identifies as database narrative (2001, 218), a technique that pulls material from the available pool of possibilities and cuts it together appropriately. *Heavy Rain* operates in this fashion as it responds to player success and failure at the scene level. Manovich's take on algorithmic (2001, 222) logic also describes how failure is handled in a given scene. For Manovich, the loop is a narrative engine (2001, 314) that bridges linear narrative and interactive control and allows interactive narratives to become the sum of "multiple trajectories." Heavy Rain manages this bridging as well. In a sequence closely matching Manovich's "loop," we had to rock a baby to sleep as Shelby in Chapter 16: Suicide Baby. Given the delicate nature of the operation, we had to "smoothly unfold" the controller sequences, which we failed many times. In this case, although we were literally sent back to the start of the care-giving loop and experienced frustration, we were able to attribute it to Shelby's unfamiliarity with babies and thereby gave it narrative salience.

Dominic Arsenault applies Odin's theory of *narrative attunement* that leads the viewer to "vibrate to the rhythm of the events told" (Odin 2000, 39 as translated in Arsenault 2008, 89) to video games in order to explain how this narrative salience is developed in the player's mind. He describes two operations in this process. The first is fictionalization, which subordinates the techniques and mechanics in support of the narrative in the player's mind. The second operation is the establishment of a strong parallel between the action performed by the audience and that performed within the on-screen action. "The relations created between the spectator and the filmic signifier (the filmic relations) are constructed as homologous to the relations existing between the elements of the diegesis that are prevalent in the unfolding of the story (the diegetic relations)" (Odin 2000, 42 as translated in Arsenault 2008, 89). Arsenault indicates that gameplay is inevitably linked to narrative as players thereby make meaning of the actions they undertake. This is because the "game loop" is not just a referee upholding the rules, but also the storyteller communicating the fictional world and the consequences of the player's actions. We find this to be a fitting description of the way Heavy Rain's control scheme creates a physical analogy between the filmic and diegetic relations to promote a strong connection between player and character.

Heavy Rain's successful integration of story and control scheme can also be understood using the concept of "narrative interface" (Bizzocchi, Lin, and Tanenbaum 2011). Nominally, interface controls are hyper-mediated (Bolter and Grusin 1999) and reduce the immersion the player experiences. However, with appropriately designed interfaces, integrating narrative salience can play an active role in counterbalancing this reduction. Bizzocchi et al identify four design approaches, of which *Heavy* Rain uses three. First, the aesthetic design of the game contributes to a highly naturalistic "look and feel." Typical reminders of character and game status are not present, and the interface commands that are there are presented in a very meaningful way, as we have discussed. Second, the third-person perspective of the camera is also chosen to frame the current character in a way necessary to the cinematic aesthetic of the game. From this distance, the player can view the environment and the ways the character can interact with it, as well as the results on the character's body, something a first-person perspective would mask. Third, Heavy Rain

relies strongly on behavioural mimicking in its controls. The sequences the player engages in correspond in direction and type to the physical actions required of the character. The resulting synergy along these three axes results in a "narrativized interface" - one that directly supports and incorporates narrative experience. We also believe that this interface provides an example of what Deleuze's "plane of immanence" looks like in a game. These interaction-images present vibrating dilemmas for the player to consider, frozen in time.

Player, Character, and Identification

A critical result of combining *Heavy Rain*'s deeply contextual and visually involved interaction scheme within an intricate branching narrative is player identification with the characters. Murray Smith delineates the limits of identification with character in the cinema. He first cites Noel Carroll, who disagrees with even the use of the term "identification" because it implies a 'fusion' between spectator and character (Smith 1995). Smith goes on to build his own dynamic for the construction of engaging characters, which he calls "the structure of sympathy". He identifies three distinct phases in this dynamic: first the "recognition" of the uniqueness of a character by the viewer, second the "alignment" phase where viewer builds her narrative knowledge of the character's actions and motivations, and finally the "allegiance" phase where the viewer makes a moral evaluation of the character.

Smith's dynamic structure of engagement with character is more actively instantiated during the playing of a videogame. In the case of player-avatars, the process is driven directly by player choice, and may overcome Carroll's reservations from the world of cinema. This is Waggoner's position, drawing on Gee's identity theory concepts to highlight the importance of projective identity (2009, 15) in game-play. Through immersion, players experience identificatory fusion (2009, 37) with the characters they control and develop a complex contextual identity through "being and not-being" the character. In *Heavy Rain*, one can see a much more robust version of Smith's "structure of sympathy", with the game player directly implicated in the moral and ethical evaluation of characters whose actions she herself chooses.



Figure 4: Ethan prepares himself (Source: Heavy Rain; Copyright: Sony Computer Entertainment 2010)

This process is further intensified through what Massumi calls viscerality: a "rupture in the stimulus-response paths, a leap in place into a space outside action-reaction circuits. Viscerality is the perception of suspense. [...] The space of passion" (2002, 61). This experience leads the body to bridge the gap and identify with the perceived consequences. We experienced this first-hand in Chapter 27: The Lizard. In this trial, Ethan is instructed to chop off a finger using one of the rusty implements in an abandoned apartment, as shown in *Figure 4*. We felt his hesitation when we held down the square button to force his left hand to the table, and took deep breaths with him when we held down the control stick to force him to exhale. Sobchack refers to the synesthesia present in cinematic images of sensation as our dominant senses of vision and hearing speak to our other senses (2004, 67). Marks calls this a "haptic visuality" that makes a visual connection between our skin and the "skin of the film" (2000, 132). This process explains the visceral discomfort we felt as we jerked the controller down to use the saw Ethan found lying around and experienced the horrifying results. While involving the controller goes beyond Sobchack and Marks' original intent of demonstrating the power of the image, in fact, doing so reinforces the strong visceral connection that is made by the player's complicity in enacting the appropriate controller gesture.

This highlights the nature of these moments of moral choice within *Heavy Rain.* The coupling between interaction-image and player perception (and visceral reception) of consequence becomes the site of oscillatory pleasure within the work. At these times, players make choices that nominally disrupt the narrative of the game and create change within the interactive environment. However, upon closer examination, this interaction provides a powerful tool for reaffirming players' connections to the character they are controlling and their immersion within the virtual world through the arousal of affect and interest.

In Chapter 32: The Shark, Ethan's trial is to shoot a man in cold blood. While we are presented with the likelihood that this man is a drug-dealing lowlife, when Ethan bursts into his apartment with a gun, the dealer is reduced to begging for his life while proffering pictures of his children. We ended up pulling the trigger following some dubious internal moral mathematics, and the result was a gun blast, followed by Ethan vomiting. The camera then cut to the fallen photo of the murdered man's children. The spectacle of the killing engaged us with Ethan's decision-making process and his own visceral response, while furthering the narrative through the decision we had made. Another example occurs in Chapter 39: Sexy Girl, when Paige pretends to be an applicant dancer for a club to get an interview with the sleazy owner. She muses that this is the worst decision of her life, and this is quickly affirmed when the owner forces her to perform a strip tease at gunpoint. However, it is up to the player to decide how far she goes before distracting the man with a dance and subduing him with a lamp. The moral dilemma of the situation is emphasized

when her nature as literal "animated fetish" becomes the "solution to an unbearable situation" (del Rio 2008, 36).

Since Heavy Rain incorporates what Elsaesser calls "productive pathologies" (Elsaesser 2009, 24) in its character design, this ability to highlight mental states is vital. The protagonists frequently experience altered mental states: Paige suffers from insomnia, Shelby is an alcoholic schizophrenic, Jayden is addicted to a drug that facilitates his high-tech augmented reality glasses, and Ethan suffers from morbid neuroses. While these pathologies aren't necessarily productive in the sense of helping their victims the way paranoia does in conspiracy films, they allow the game to disorient players and thereby set up compelling scenarios. The character of Paige is first introduced in Chapter 10: Sleepless Night and the player leads her through a terrifying fight sequence that eventually results in her death, unaware it is a nightmare brought on by the use of sleeping pills. This immediately sets up her insomnia as well as some of her other character traits. Jayden's withdrawal attacks also must be managed: misuse of the drug can lead to his death. Properly managed, his augmented reality glasses allow the player access to an investigative "mini-game" as seen at a crime scene in Figure 5. When using augmented reality, Jayden is in fact viewing the world of *Heavy Rain* in the same way as the player: a complex overlay of information and potential action requiring complex gestural interactions.



Figure 5. Jayden investigates clues in augmented reality (Source: Heavy Rain; Copyright: Sony Computer Entertainment 2010)

Ethan's phobia of crowds, similar to the mall where he lost his son, is also easily facilitated through the game's interaction schema. When he has to visit a bus station to retrieve the Origami Killer's instructions in Chapter 12: Lexington Station, we experienced Ethan's shaky vision and the game required complex control sequences to walk even a step farther. More than once, Ethan collapsed and had start over. Eventually, the people around him freeze into timelessness, and Ethan chases a vision of his dead son Jason and his red balloon, bowling over people as he goes. While Ethan chased after Jason in a scene that mirrors the opening chapter, we felt the depth of his longing and loss. This shaky mental state ties into the overall narrative and as a result of his occasional blackouts (one leads to Shaun being kidnapped in the first place), Ethan comes to believe he is somehow the Origami Killer, a red herring that helps to complicate the player's understanding of the character and their actual control over him.

Conclusion

In conclusion, we have extended Deleuze's concepts of the movement-image and time-image to apply more directly to the images within games that are complicated by the inclusion of interfaces. These interaction-images contribute to an important phenomenon with the potential to reinforce the process whereby players identify with characters. They do so by first connecting players with the realm of potential as they are invited to make exclusionary selections, and then making them complicit in their intentions and actions. These intervals of emergence provide room for two layers of reactions: the visceral connection with characters that arouses affect, and the cognitive understanding of the character that develops into an emotional response. Both play a role in strengthening identification with each character and engage players in a process of becoming. Once players learn these "rules of the game," they are ready to play. The remaining question is, "how far do they want to go?" Our analysis of *Heavy Rain* leads us to believe that it encodes a meaningful gestural vocabulary for interacting within the diegetic game world that is a hybrid of meaningful cinematic and videogame techniques. As a result, interaction-images become a primary site of meaning and pleasure as players are thereby challenged to understand and to enact.

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Replaying the remnants in Mark of the Ninja

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The nostalgia felt for video games is not nostalgia for a state before the trauma of the games disrupted us, but a desire to recapture that mind-altering experience of being in a game for the first time. It is a yearning for liminality itself – for the moment of transition

- Sean Fenty, Playing the Past

Introduction: Sneaking through the gift shop

As Felan Parker convincingly demonstrated in his study of the rise of Jason Rohrer's game *Passage* (2007) to art-house status, cultural and artistic legitimation "are not benign, natural processes" (2013, p.56). As they are increasingly being observed from various analytical frameworks, videogames of the 21st century are more sensible than ever to the presence of an *observer*. Some of them seem to (re)act accordingly by ostensibly seeking inspiration from aesthetic lineages rich in "cultural capital"¹(Parker 2013, p.43). In contemporary culture, awareness of such phenomena led to some artists challenging the recuperation of surface-level discourses on artistic value by the art market and mass media, as in Orson Welles' *F for Fake* (1973) and (famous street artist) Banksy's *Exit Through the Gift Shop* (2010), mischievous winks towards the "material capital" that is pursued by some practitioners and promoters of a certain artfulness. They seem to ask: who's printing the legend?

Not the least of the pleasures of playing Klei Entertainment's *Mark of the Ninja* (2012) is the way in which it enables to rethink the recent prestige gains of video game culture through the prisms of the stealth-action genre and the innovative aesthetics of "indie" games. Through artistically valued features such as a complex intertextual fabric, the motif of the *memento mori* (a reminder of the inevitability of death) and a sustained

rhetorical ambiguity, the game can give way to a reframing of the word "legitimation", revisiting the decades-old controversy about violence in games. It is fair to suggest that the overall effect is similar to David Cronenberg's *A History of Violence* (2005): an ambiguously fetishistic and revisionist look at the violent archetypes of specific genre practices².



Figure 1: Left: Hoxton Maid (Banksy [2006]). Right: Shinobi (Sega 1988).

As much as it is a self-conscious exercise in style, I will argue that *Mark of the Ninja* is also a powerful tool for aesthetic archeology and critical reflexivity, not unlike the way street art remediates pop art into social commentaries. I will scrutinize how temporality, as a condition for consciousness, is constructed in the game as a cultural, materialistic and media induced phenomenon by borrowing the framework of media and literature scholar Éric Méchoulan. Drawing upon Christian Keathly's study of cinephilia, I will also consider the intertextual fabric of the game as a field of potential metonymic triggers for 'ludophiliac' memories (2006, p.141). Finally, I will tie the temporality and gameplay to physicist and thinker David Bohm's theory of dialogue and reflexivity, showing how the effect of the game's aesthetics can be appreciated as a form of *suspension* of intentions and assumptions behind (the highly aesthetic) violence.

Pacing the dream: 2D space as a plane of rémanence

Perhaps the more rewarding avenue to tackle the tension I see in the game, between its artful reflexivity and the intertexual fetishism, is through the construction of temporality. Let us first glance at the general aesthetic proposition of Mark of the Ninja. I will first suggest that, as a stealth game, the choice of 2D here is as sweat a surprise as the "groundbreaking" retro-aesthetics of Castlevania: Symphony of the Night (Konami 1997) (especially since both games' level design is very similar). Indeed, in those times of transitions towards an increasingly dominant polygonal 3D paradigm within the game industry, the first born of the metroid-vania genre was hailed by some as a form of resistance. In Mark of the Ninja, the intertextual matrix operates through the (re)performance of actions that our gaming memory situates in 3D spaces. But before we consider the nostalgic power of 2D, we should always appreciate the fact that novelty always leans upon tradition³. As Éric Méchoulan expressed it, "the sense of astonishment [in a discovered future] comes precisely from the fact that my past did not seem to lead in a linear fashion to it [...] This is why in the present, both the contingency of what happens and the interpretation that connects it to my past, cohabit" (2003, p.41). This goes hand in hand with this particular reception of the game: "Going forward as the line between retail and downloadable games fade, and we embrace this [flawless] game via download future, it's funny how much the future looks like the past" (Granrojo 2012).

If we think of the past as a vaster time span folded upon the discrete instant of the *now*, as some sort of helpful database wealthy with various principles and experiences, we might as well call it a user interface. This is not an argument to reduce the workings of memory to a videogame experience, but to show the powerful "family resemblance" between the retentiveness (or *rémanence*) of memory and the way 2D interfaces are being used as an abstract plane of interpretation, ripe with maps and cognitive cues. It is true for the imagery of *Mark of the Ninja*, full of informative clues drawn directly upon gamespace itself. "[...]every 2D perspective conveys a metaphor when in connection to other one (2D or 3D) [...] dioramas are pictures of the world I habit that show different possibilities of action, in other words creative ways to build meanings with consequences in main gaming space" (Gandolfi 2013). As the past is implicated into the present, the territory is always already a map, or at least both are on the same plane of immanence. This construction of temporality through mapping, interfacing and mediation started ages ago with epic narratives: "The mythical spaces in *The Gilgamesh* seem to adjoin or overlay the real spaces. 'Heaven', for exemple [...] is an overlayed space with access points (including dreams)" (Smith 2013, p.44). This is the 'past-tense' presence of the *kairos*, the melancholic power to recognize opportunities as our finite time relentlessly unfolds.

With this conventional literacy in mind, I will suggest that the 2D spaces of Mark of the Ninja can be increasingly felt as the interface of a bygone main gaming space, thus folding past upon present. As I sneak behind a guard to kill him, a very simple quick time event appears. If I do this right, a murderous choreography unfolds, leaving me for some seconds to contemplate the ninja's minute techniques of assassination: Tenchu (Acquire 1998) immediately comes to mind for me, as if it was the main gaming space where my action should be actualized. In other instances, it is micro-mechanics of Batman: Arkham Asylum (Rocksteady 2009) or Metal Gear Solid (Konami, 1998) that my actions seem to perform as a ritual and litany of infiltration, intrusion and espionage; as if I was rehearsing for a replay of those games. The gameplay references are many, but they all have in common the stealth-action genre and 3D representation. I insist, for the ludophiliac gamer (close to the "classics"), most performed actions and their elegant audiovisual feedbacks are potential triggers for the remembrance of games past.

It is useful to consider Christian Keathly's description of the cinephiliac anecdote here: "filmic details have been described as possessing a metonymic potential [...] We don't write about these things, it is not a metaphorical representation that the sensory pretext summons but rather something related by affinity, that prolongs the content of the object in another, more tenuous form, *as though to prolong a last touch with the very fingertip*" (2006, p.141, *italics mine*). Following Roland Barthes and Fredric Jameson, Keathly suggests that visual details are especially potent in triggering memory on a tactile level, thus making certain sentences, descriptions or images especially stimulating for an imaginative (re)creation: the urge to write with/from them. I would suggest that the fetishization of classical visual feedbacks and the unfolding of familiar tactical schemes combine into very powerful metonymic portals for memory *during gameplay*. For experienced gamers, there is a form of ongoing aesthetic archeology in *Mark of the Ninja*, suggested by the story's movements (from east to west and back east through catacombs and middle-eastern ruins) but also by the aesthetics and design of the game, such as the rewarded collection of mythical ancient scrolls.

The best way to come full circle on this metaphor of an archeological gamespace is through the work of Méchoulan and the idea of "taking a step aside". Drawing upon Henri Bergson's method of inquiry to build a framework for a media-archeological analysis of western metaphysics, Méchoulan stresses the importance of thinking the past by reproducing its own rhythm into our present intuitions. Rethinking the hermetic boundaries of the texts of History, he tries to craft a model of historically situated modes of mediation and transmission in order to reconstruct the material and technical conditions of a given era's textual works. Here, the creation of concepts is not a transparent transmission of ethereal Ideas fallen form heavenly planes: it's a socio-historically situated bodily act of speech and though, working through specific rhythms and institutions. After he resituates the cultural and material conditions, he considers discursive possibilities and strategies, but not entirely in a subjectively situated point of view merging with an author's words (taken as ultimate origin): "Beyond the interpretation that requires an intelligence of symbols, thought must take a step aside, giving attention to what is around

the concept, to look at the point of creation, the particular *modulations* of time within which an experience suddenly flourishes" (2010, p.67; *italics* mine).

The present section's keyword, *rémanence*, must be understood as a remnant within memory, but such as it was made possible by material mediums in a specific culture of memory [*i.e.* a practice of *mnemotechnics*, socially transmitted techniques of memorization]⁴. Méchoulan fleshes out a uniquely rhythmic, robust and yet intuitive perspective building method: "Anachronisms are not only this heresy of historiography by which we lay the past over the reflexes of the present (a matter of quantities), but in fact it is the very constitution of time itself (a problem of quality) through which the past becomes increasingly astonishing [...] Intermediality is giving *attention to remnants*" (*ibid.*, p.73).

As this might appear a far-fetched framework for our present purpose, we will see that the unfolding of the narrative and the game's thematic ecosystem is in accordance with a media-archeological approach to videogame's past; not as a theoretical work (games are not theoretical *per se*), but as a suggestion made through aesthetic choices, a room-making for the player's potential desire for retrospection.

Marks as Archeological Remnants

The opening cinematic first shows a beautifully 2D animated tattoo tool being dipped in red ink, immediately preceding the apparition of the brushed game title. A short sequence, where the drawing traits are remarkably rougher, depicts a medley of typical tactical stealth actions performed by a ninja. When the ninja kills the last guard, he wakes up beside the tattoo artist, in the more carefully drawn "actual" world of the narrative. The logic of reality layering is already at work and the remediation of hand drawn traits on paper (and flesh!) is the visual rule. When the ninja accepts the "mark" [tattoo], he is granted superpowers to save his archaic clan from a modern corporate mercenary force. We soon learn that this tattoo, made with an ink produced by a secret toxic plant, eventually generates hallucinations and madness. As a ritual, the bearer of the mark is due to commit suicide after he fulfills his fateful mission. During the tutorial level, aptly titled "Ink and Dream", the player's avatar is awakened by a bell to find a ninja woman. At first, her primary function is to give tactical advices: "The ink of your tattoo has honed your senses, focus your thoughts and you can freeze time in your mind". For all this promise of time manipulation, she soon starts reminding us again and again that death is at the end of the road. She also ends up giving occasional hermeneutical hints about the clan's past and eventually nurtures rebellious thoughts against the clan's leader and other members. She transmits the melancholic *kairos* through her sweet voice: time is finite, all opportunities are now or never, and History is our only wealth.

There are many kinds of *ink* in the game. As we find one of the many hidden collectible scrolls, we raise our "honor" score (a currency for power-ups), we trigger a voice acting that reads out loud and we watch the ninja reading in a scripted sequence, similar to the presentation of the act of killing (which also raises score). If the 2D space is a step on the side relative to past 3D actions, the visualized act of reading is step on the side for the avatar: the side-scrolling gamespace (and interface) now serves to show our avatar staring at the side of an unfolded scroll. In this context, it is tremendously appealing to accept Henry Jenkin's suggestion that "when we refer such influential early works as Miyamoto's Super Mario Bros. as 'scroll games', we situate them alongside a much older tradition of spatial storytelling: many Japanese scroll paintings map, for example, the passing of the seasons onto an unfolding space" (2004, p.122). This also suggests an empirical relationship between the observer and the observed: we are watching a fictional instance of our own activity. We will come back to this issue in the last section.



Figure 2: "The Story of the Ink"

This meta-narrative logic culminates during the finale, when we are told the eerie "story of the ink" (a recapitalization of the entire game), slowly walking rightward on a white surface explicitly remediating the material medium of ancient scrolls. This retelling was prepared by a preceding walk in a corridor decorated with iconic figures of the clan's mythology, the movement of which is contiguous to the one through the white scroll. It is indeed a specific institution of cultural memory. Now the player/reader is truly lost in endless layers of scrolls, but there is also this sense of a *passage*, analogous to the melancholic march forward that Jason Rohrer's game offered. Indeed, not unlike *Passage*'s famous death of the avatar's companion, we just discovered that the ninja woman guide, the only character seemingly keeping us from a fully opaque alienation, was just a hallucination of our avatar all along. After the synthetic retelling of the story, we are given a choice to kill the clan leader (who took possession of the dishonoring mercenary technologies) or our game-long imaginary companion (turned murderous and revenge hungry) which voice-acted presence was at times very soothing and helpful. There is no boss fight against the leader, there is not even the possibility to run and be quick about it: just a plain slow murder that turns the image into the

rough-traits dream world. Of course, killing the woman reveals to be the ninja's suicide in the main fine traits cinematic world. But who's to say what drawing technique is more real than the other? Perhaps the rough traits of the dreams are more mimetic in terms of the act of the tracer, but less in terms of an immersive fiction. This nauseous and unsatisfying moral experience is thus radically different then the mass killing of evil fascists in Klei's previous *Shank* titles. Remembering Jean-Luc Godard's comment on John Ford's westerns, there is no *satisfaction of ordinary justice* here, leaving the moral issue to loop in the player's mind. This is also what I mean when I say that the game creates a tension between the culturally legitimate and the pleasurable mediation of violence.



Figure 3: Marks within/upon gamespace.

As with the above mentioned *A History of Violence*, a title can bear a powerful programmatic quality. In *Mark of the Ninja*, it is hard not to see *marks* everywhere, since the game's imagery is full those: halos left by footsteps slowly expand and disappear, the avatar's silhouette is outlined in a contrasting white when hidden in darkness, our last seen position leaves a pale drawn silhouette that determines where guards will investigate, the score display and health status are drawn in the rough 'dream' traits, etc. But as our hallucinated friend tells the avatar: "Azai [the clan

leader] refers to you as 'The Champion', but do you know how they used to call the one who bore the mark? ... 'The Severed'". Throughout the game, it is obvious that everything that is mediated by ink – and, really, everything seems to be – is a potentially damaging and doubt inducing alienation: an entrenchment within a borgesian maze. Consider two of the early haiku poems found on hidden scrolls: 1) "We snap off a branch / to make a weapon, but the / tree must bear the wound", 2) "Tomorrow we bite / the hand that feeds us today / either way, we eat..." Some scrolls sound like ironic warnings, some like tormented confessions and others like a Zen acceptation of death. In their effects, some are strikingly akin to artist Jenny Holzer's "truisms". Perhaps one of her most famous could even be used here to sum up their overall effect: "It takes a while before you can / walk over inert bodies and go ahead / with what you were trying to do" (Flanagan 2009, p.143). The most interesting feature of this continuous internalization of enigmatic and paradoxical formulas is the way it is equated with spatial puzzles. In every level, to collect one of the three scrolls, the player must successfully navigate a *gamespace* within the gamespace, an abysmal heterotopias simply known as a "challenge room". The trap systems and navigational logic of those hidden areas are always a concentrated form of the specific types of obstacles and spatial challenges of the level design in which they are found. When we reach the scroll of such a chamber, the screen flashes white and we are teleported back to the main level. Our ninja avatar is holding his head as if struck by a terrible headache as the content of the scroll is heard. To paraphrase Holzer's work again: "you are a victim of the rules you [play] by" (Flanagan 2009, p.144). Players are also "marked".

The Ninja as Origin, or the Imaginary Ontological Marker

The mark, here, can be understood as an *inner remnant* related to the mental activity demanded by the puzzle design, mirroring the way problem-solving processes are materially modifying our minds. Such a challenge room is in some way the mark of a specific level design. But such marks are never the index of an objective reality that would be separate

from the perceiving subject. If there is something to be investigated in this backtracking maze of signatures, it is not the intricate conspiracy of an external evil, but the rhythms of our own internal processes as they are in good part influenced by experiences in time and media related habits. The game becomes an occasion for a *reevaluation* of cognitive paradigms of evaluation. As Giorgio Agamben suggested, "signatures marks things on the level of their very being", but "existence has no real predicate", which means that "ontology [the study of the being as being] is not a determined knowledge, but the archeology of all knowledge" (2008 p.75). Consider this example of an ontologically-minded archeology: a contemporary gamer may recognize in the game's meta-narrative project a wink to the Assassin's Creed (Ubisoft) franchise's self-reflexive apparatus that frames and justifies the navigation of historical events. But, instead of using the historiographically fact-poor figure of the mid-eastern assassin as a vessel for an apparently immediate access to History, Mark of the *Ninja* uses the figure of the fact-rich ninja taken as a repeated figure in videogame iconography.

Hypermediacy is the rule here, but it does not insist directly on the ontological materiality of computer architecture and code programming, akin to the iconic downpour of algorithms in *The Matrix* franchise (Wachowski Bros.). As Alexander Galloway recently stated it, "the computer instantiates a practice not a presence, an effect not an object [...] *if cinema is, in general, an ontology, the computer is, in general, an ethic*" (2012, p.22). Perhaps there is a kind of ontology in the game. If so it takes a historical approach to surfaces, interfaces, figures, interactive rhythms and patterns *as mediated by audiovisual feedback.* The player is the implied archeologist of gamespace⁵. No mark (or signature) can be considered as an ontological trace without a human translating it onto a temporal interface (memory, rhythms) upon which marks can become *remarks.* What I am trying to suggest here is that mark constellations are always puzzles through which epistemology and ontology needs to be rearticulated, not simply vessels for discourses. As Méchoulan puts it, Aristotelian ontology

is the retrospective study of "what it was to be" [*To ti ên enai*], but since being is always *to be with*, in a relationship to others, the structure of the problem becomes: *what it was to be with* (2010, p.163; p.41). The mark is the result of a momentary relationship.

That said, and since – apart from the stealth genre – the ninja is our main ontological and historical agent here, it affords us this question about the ninja's figural presence as an imaginary marker: what was it to be a ninja with other figures? If we stick to the surfaces and visuals, the metonymic 2D ninja leads right back to the 1980s and such (trade)marks as Ninja Gaiden (Tecmo 1988) and Shinobi (Sega 1987). For instance, there are common traps and guard types in the Shinobi titles and Mark of the Ninja. Let's remember The Revenge of Shinobi (Sega 1989) and its relentless onslaught of intertextual plagiarisms of other media. In this classical side-scrolling action game, our ninja gets to fight ersatz of Spiderman, Batman or Terminator, among others. As for relationships, in such a decade of technophobic "Japan panic" (Kline et.al. 2003, p.122), the producer of *Shinobi* ledgedly declared that he wanted the game to mirror the image that Americans entertained of Japan (Blanchet 2010, p.228). This is even more fascinating when we consider, through the lenses of Alexis Blanchet, how such disregard for copyrights were, in 1989, more than a decade old practice of the videogame industry, starting with Atari's Shark Jaws (1975). "Like Shark Jaws, writes Blanchet, Donkey Kong (Nintendo, 1981) borrows to the surface of things" (Ibid., p,162, italics mine).





These borrowings were not only a desire to suck in some cultural legitimacy from cinema, but also a functionalistic recycling of imaginary common grounds easing the apprehension of the game's situation (*Ibid.*). It was intended to trigger the player's memory as an interface for interpretation. There is an interesting rhythmic historicism at work here, since Klei's 2012 title have a similar historical distance – to both 'indie' game's contemplative aesthetics and 'mainstream' gaming's stealth-action violence – that *The Revenge of Shinobi* had on the early videogame industry's explicit iconographic piracy. Before each level in *Mark of the Ninja*, the player is invited to choose between different un-lockable iconic eastern masks connoting a different expertise (*i.e.* a spiritual and technical *Way*, an *ethos* and method). We soon associate each set with a particular style of gameplay ranging from the sword-less sneaking type to the aggressive open-field warrior (which is deprived of the power to freeze time). Here, the borrowed archetype is not from film or comic, but from famous past game's play choreographies. As such, it's also related to resemblance for functionalistic purposes. The game reiterates the same vampiric appropriation to its own medium that 1980s' games like Activision's *Pitfall!* (1982) applied to films like *Indiana Jones and the Raiders of the Lost Ark* (Spielberg 1981). Coincidentally, it highlights how much spying and assassinating are made easy (and way too fun) to repeat, not only because of the high readability of the 2D gamespace, but also given videogame's history of violence.

As for their potential use as a cliché to convey a narrative context, the iconic 1980s ninjas were agents of a timely resistance and anachronistic heirs of a rarified wisdom. I want to suggest that it is also to reflect upon this ongoing logic that this archetypical figure is summoned from the medium's past in Mark of the Ninja. The ninja is thus the tired old protagonist in a relentlessly repeated - enough to leave a mark - mythical battle between east and west, archaic and modern, and perhaps more interestingly human and post-human. One of the most powerful enemies of the game, the *stalker*, is a very feminine cyber-ninja analogous to our own hallucinated guide, leading to an interesting comparative exemplarity. This equation between futuristic technological prostheses (the uncannily familiar outer Other) and the prosthetic quality of language (the interiorized Other through ink, scrolls and voices) questions the absolute casus belli of the conflict. It dissolves their motive into a paradox unwittingly shared by the two adversaries. The logical implication of this unrecognized historical redundancy is that neither traditional cultures nor modern practices have full monopoly over the trappings of alienation by a seemingly transparent, yet always opaque, set of mediations. They differ only in terms of *rhythms*, momentarily valuing one state of their historical transformative process over another. Winning such conflict does not mean to be critical of the enemies' view of the world, but to embrace their tools of interpretation (by stealing their ancient knowledge or their technological apparatuses), which ironically implies to merge with their

historical identity instead of resisting it. Why not talk then? We could then say that *Mark of the Ninja* replays the open ethical explorations of another stealth-action game, namely *Deus Ex* (Ion Storm 2000) and its global post-human conspiracy theory.

I have so far given very little attention to gameplay itself, for I wanted the temporal implications of gamespace to fold upon an analysis of specific actions. I will thus complete the analysis by focusing on my own experience of a decisive sequence and the way it relates to its context as we have understood it: as a plane of *rémanence*. By that I mean a space and surface designed to accommodate a performance of memory, where "interpretation' designates hermeneutic activity as much as it might the performance of an actor or a musician" (Méchoulan 2003, p.42).

As we ink the legend: reflexes and reflexivity

The major issue for critical reflexivity through play is to know if one can thoughtfully dig into the ongoing process of performing an action. As Méchoulan suggests, Henri Bergson gives good cues about this issue through the relationship of thought and *intuition*, once the latter can freely contemplate the movements of thought once it's been dismissed as an instrument of survival instincts (2010, p.69). But to fully convey this, I want to turn to David Bohm's theory of dialogue and consciousness. First, I will say that as a stealth game, Mark of the Ninja demands that we plan our actions, thus simulating temporality in our minds before we trigger an intended tactical sequence: Thief (Looking Glass 1998) was certainly more reflexive than Doom (id Software 1993). As I have suggested, planning is made very intuitive through intertextuality, 2D spaces and interfacing. But, especially because the learning curve is accelerated by this configuration, the commands are so intuitive we can actually wander our minds right out of them into contemplative *flâneries* and still perform good enough to progress, at least at times. And when we do wander, the aesthetic elements we find are often, as I have argued, very rewarding. One of those times is the last stealth puzzle of the game, the

last part of the level just before the grand finale where *Passage* is alluded to. It takes place in the Dojo where, the guide says, we received our ninja training. That said, as an ultimate challenge, it is a lot easier than the last three levels, filled with complex traps and blinding sandstorms. Instead, it really feels like we are returning to basic stealth 101.

But there is a subtle frustration in the level, intended for the achievers. As the reward system values extremes (kill none or kill them all), there is a forced middle ground here. Because we begin the level with no sword, we can't quite kill them all, but an intricate trap system related to a door makes for a hardly avoidable indirect kill in a specific room. Plus, on the narrative side, our guide hints at the fact that some guards may be hallucinations. So I got lazy, I rushed through the level, killed stalkers with the trap but sneaked by guards. When entering the Dojo puzzle, I thought I'd just kill the guards and get it over with. Presently, I jump in the air close to a balcony where a guard stands and *freeze time* with the trigger button. I consider some ninja tools, looking for something suited, but I want to keep the heavy stuff for the sniper I spotted, so I simply break the light on the guard's right side to divert his attention with a bamboo dart. This game can be fast, but also very slow: I have to crawl up the balcony and then beside the enemy without a sound. I have plenty of time to remind myself that I am planning to kill him, but at this point of the game it is such a habit I don't even think about it. Plus, even if my rebellious guide sounds a bit too aggressive, the fact that there are armed hi-tech guards in the Dojo really doesn't seem right: isn't something sacred being violated here? Ah...conservatism.

David Bohm teaches two interesting things about my thought process here. Our nervous system throughout our body have *proprioception*, the capacity to perceive its own activity with great precision and without delay in time: this is crucial for survival. Thought has no such proprioceptive efficiency (Bohm 2008, p.86). I should add that, as I play a game with a strong sensation of direct control like *Mark of the Ninja*, there is a slight displacement of my bodily proprioception unto the image of my avatar: his are really my movements. Bohm also tells us that thought is what generates justification for actions through emotions and assumptions, including for aggressive and violent actions (*Ibid.*, p.84): this is the ancestral Dojo, how dare they? If I choose stealth, not for the perfect score, but because I think this is not right according to my interpretation of events, I might then suddenly obey to the taboo against murder: "that suppress the action, says Bohm, which means that you are still aggressive, *against yourself*" (*Ibid.*). Suppressing creates a mythical authoritative *self* as the observer within, the old Cartesian illusion...

I finally kill the guard, triggering the choreography seemingly borrowed from *Tenchu*, my own first 'Dojo' where I learned how to play as a ninja assassin. It takes as long as usual and I still stare at the lush animations. When the body hits the ground, a second ticks away, and an explosion of thin blue petals appears over the dead guard. I know this visual effect: it is associated with a luminous diverting tool I often used to fool guards away into useless investigation. Who's being fooled here? The petals fall back down and the body is not a mercenary's anymore, but one of my clan's ninja! Did I set out to kill them, too? Not just the leader? This is an interesting surprise from my past, and it's also very revealing of the problematic state of mind of the avatar (and mine, perhaps). Bohm says: "There is another action, which is neither to carry out the aggression nor to turn it against yourself by suppressing it. Rather, you may suspend the activity, allowing it to reveal itself, to flower, to unfold, and you see the aggression and its actual structure inside you" (Ibid.). This is precisely what happened here: suspension. The game is filled with what Bohm calls tacit knowledge, what is accepted as the building blocks of a perceived coherence: knowledge of stealth tactics, primarily, but also for the justification of our mission. But in Mark of the Ninja, we are never fully assured as to the point of origin of tacit knowledge.

Opportunities for suspension are legions in this game, and they are

highlighted by the narrative's temporality and the dream-like atmosphere. Everything seems to happen within our minds, or on the anachronistic interactive scroll. It's all "ink and dream", we might say. Perhaps, but it is never innocent: "Suppose we ask ourselves, 'Do we have it as an insight that thought is a material process, or that thought always participates in perception'? If we have that insight, then that may remove some of the barriers. But our whole set of reflexes, our tacit knowledge, is against that" (*Ibid.*, p.95). When we feel the need to forget that "the past is now" (Méchoulan 2003), we tend to dismiss memory and to ink the legend, but perhaps games like *Mark of the Ninja* can help us reflect upon such reflexes with greater acuity. To engage in critical play, here, is like racing the dream⁶ of the interface and wake up to its anachronistic fabric. It is not to ask 'where is this image from', but 'when is it from'? Is this map up to date? And according to who's calendar?

Conclusion

I have suggested, through this analysis of temporality in *Mark of the Ninja*, that the game is genuinely stimulating for critical play. As the stealth genre is certainly more subtle than outright violent action games, it can still fall into hypocritical justifications of murder and thievery. As for the innovative aesthetics of indie games, they bear a cultural responsibility in the cognitive practices they promote and the value systems they reinforce through their growing legitimacy. By associating a melancholic sense of *kairos* reminiscent of the art-game *Passage* with the mnemonic toolbox of past stealth games, *Mark of the Ninja* successfully dramatizes violence and raises problems about mediation and legitimation without losing the specific joys of playing videogames.

As we repeat familiar actions unto its lush, highly readable 2D gamespace that directly acts as an interface for tactical information, it can be felt as a step on the side of the action, an occasion to observe its process as an uncannily familiar and refreshingly astonishing performance. In their lively and fascinating relationship to the past of the medium, we could synthesize the effect of some key game moments as "archeological events" (borrowing from Michel Foucault (Méchoulan 2010, p.24)). As such, this game contributes to a defragging process in the history of videogame aesthetics through the implied player's memory. Perhaps one of its artistic lineages is that of modern narratives and their circular temporality, but *Mark of the Ninja* doesn't seem to fall in the trap of celebrating form for itself. It makes room, and especially time, for raising stimulating problems about the medium we love and the history we share with it. It feels just like sneaking through a souvenir gift shop: well played indeed.

Endnotes

- (1) For example, consider the remediation of Escher's paradoxical project ed spaces in *Echochrome* (SCE Japan 2008) or the borgesian treatment of time and in Jonathan Blow's *Braid* (2008).
- (2) Other films can come to mind, from *Point Blank* (Boorman 1967) to *Ghost Dog: The Way of the Samurai* (Jarmusch 1999), also filled with figures of (re)mediation.
- (3) For a theoretical articulation of innovation in the videogame industry and its relationship to reiteration, I dare suggest an article I coauthored with Dominic Arsenault: 2013. "Reverse-engineering graph ical innovation: an introduction to graphical regimes". G|A|M|E italian journal of game studies, n°2, vol.1 (Journal) <http://www.game journal.it/>
- (4) As Méchoulan puts it, beyond the academic ancestors of other 'inter' (*e.g.* intertextuality), even the idea of intermediality has a favorable socio-historical nest in contemporary consciousness. For him, one of those practices is precisely the so-called "de-materialization of work" and the economic predominance of "relationships of service" (2010, p.52-53). I would parallel that with the way in which others have pointed out the blurring of boundaries between *work* and *play*. Consider the almost anarcho-syndicalist practices of Valve Corporation, which exceptional management policies and "autotellic" work place are probably due to their quasi-monopoly on PC, Mac and

Linux downloadable games through Steam. See Bellevue, Wash, 2012, « Game Maker without a Rulebook », *NY Times*, en ligne, 8 septem bre, consulté le 28 avril, <http://www.nytimes.com/2012/09/09/technology/valve-a-video-game-maker-with-few-rules>.

- (5) See McKenzie Wark's *Gamer Theory* for this notion of the archeology of gamespace: "Like an archeologist, the gamer theorist treats these ruins of the future with obsessive care and attention to their preserva tion, not their destruction" (2007, Harvard University Press, [022]).
- (6) I am appropriating Nick Monfort and Ian Bogost's book title *Racing the Beam* (about the Atari VCS platform). The title refers to the way VCS programmers needed to measure graphic rendering in temporal units, giving special attention to the pacing of programming code in tune with the TV beam, for lack of an automated frame buffer. Hint ing at anachronistic features of cathode ray tube, they quote one of Marshall McLuhan's typically ironic statement: "The scanning finger of the TV screen is at once a transcending of mechanism and a throw back to the world of the scribe" (2009, *Racing the Beam*, Cambridge & London, MIT Press, p.27).

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*All non-english quotes are the author's free translation.

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Good Fences Make Good Neighbors: Values of Digital Objects in *FarmVille2*

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Introduction

In this paper, I explore the topic of the various kinds of value assigned to digital objects within the context of digital virtual consumption in the casual social networking game (SNG) *FarmVille 2* (FV2) (Zynga, 2012). FV2 is a free-to-play game, meaning that the game itself does not initially cost money, but the player can purchase digital objects within the game. The free-to-play model has become quite common in social gaming, and games of this type have millions of players worldwide.¹ FV2 is the follow-up to the popular social online farm simulation game FarmVille. FV2 is accessed via the Facebook interface, and players must be logged in to Facebook to access the game.

The rise of the free-to-play model may have implications for how players of these games relate to and think about digital objects. The case of virtual goods² (as a subset of digital objects) is particularly notable because these objects represent a relatively new way that humans are interacting with and experiencing digital objects. What is new about the case of digital virtual consumption in browser-based free-to-play games is that not only are consumers paying for digital objects that are a relatively new kind of object, but also the physical aspects of these virtual objects are unavailable to their purchasers. When computer games are sold on some kind of digital storage medium, or consumers pay to download a game, the purchaser has ownership of the game as it exists on the storage medium. In many browser-based free-to-play games, however, the consumer pays for a digital object that is not then saved on any physical device belonging to them; instead that object is stored on a server belonging to the company that produced the object. The consumer is paying for access to the object, rather than possession.

Human interaction with digital objects as a class of objects (in contrast to objects that are typically referred to as 'physical') is a relatively understudied aspect of human-computer interaction. Although the role of digital objects in everyday life continues to increase, the ubiquity of these objects tends to hide their potential significance. This study contributes to an understanding of the various kinds of significance that gaming has in everyday life, as well as investigating how game structure can affect user perceptions of the significance of digital objects in games. In this paper, I examine how previous work has addressed the values of digital objects in everyday life and in digital games. Then I turn to a textual and structural analysis of FV2 itself, in which I focus on how the values of digital objects play out in the environment of FV2 and how the structure of the game affects those values.

Literature Review

Digital Objects in Everyday Life

The case of virtual goods suggests that a shift may be occurring in consumer behavior with regards to digital objects. Many types of online purchases are either real world objects that are purchased through a virtual interface, or digital objects that have some kind of closely related real world analog such as music, books, or movies. In the latter case, these digital objects can be interacted with in similar ways as their real world analogs. Songs stored as mp3 files on a hard drive can be listened to, as songs stored on vinyl records can be listened to. Books can be read, movies can be watched; the same essential characteristics of the object are available. Although there are certainly worthwhile debates about how the different affordances of these objects in physical and virtual form change the user's experience of the object in important ways,³ the use value of these objects is the same or very similar whether it is in virtual or physical form.

The digital objects in the game of FV2 do not have analogs in the real world in the same way as virtual books and music do. The animals in FV2 cannot be smelled and their fur cannot be touched. They are representations of real world animals, but do not have the same use value as those animals, as Martin points out about virtual goods in Second Life (2008). Virtual goods have only a distant relationship to their real world analogs, and offer a completely different experiential interaction. These kinds of digital objects, virtual goods within browser-based free-to-play games, are objects that are more divided from their physical aspects than any other type of digital object in the experience of the user. In FV2, game files are stored on a machine belonging to the game's parent company rather than the player's computer.⁴ In these cases the player has no control over or access to the physical media on which the objects they purchase are stored. These objects may therefore be an ideal case for investigating user interaction with digital objects as objects that aren't experienced as material. The fact that consumers treat these objects as valuable suggests that our relationships to digital objects might be undergoing a major change.

A variety of related factors hide the physical existence of digital objects from users and contribute to the idea that digital objects are ephemeral and 'not real.' First, the virtual aspect of the digital object is the one that we see and interact with most often. The storage media on which digital objects are physically inscribed are almost always encased in housing that hides them from the user. Second, the virtual aspect of the object exists many layers of abstraction away from the physical aspect. Indeed, the design of the computer may encourage the interpretation of digital objects as ephemeral (Blanchette 2011, Kirschenbaum 2008). And third, the physical inscriptions that compose a digital object may seem unreal because they aren't readable by human eyes. That does not, however, make them any less necessary for the existence of the object. These related factors combine to enable, and even encourage, users to ignore all but the virtual aspect of a digital object in their daily interactions with these objects.

The claim that many users consider digital objects to be ephemeral is supported by recent work in human-computer interaction in which researchers have comparatively investigated human interactions with digital and physical objects. In a study on how people perceive digital possessions that are in Cloud storage, Odom et al. found that "people's feelings about digital ownership are better described as either uncertainty or uneasiness" and that "possession becomes a difficult concept when the thing possessed has no geographic locale" in the experience of the user (2012a). In a study on the comparative cherishability of digital and physical objects, Golsteijn et al. found that their participants had trouble thinking about digital objects as objects. "From the start they are not objects... Even though most things are ephemeral, these are even more... I mean there's no solid' (P8)" (2012). These sentiments reflect the perceived immateriality of digital records that has been discussed in many studies (e.g., Magaudda, 2011; Odom, et al., 2012b)

Materiality in Digital Virtual Consumption (DVC)

Scholars in many fields have engaged with the materiality of digital objects from different perspectives, and many acknowledge the complexity of those objects. Writing about digital virtual consumption, Lehdonvirta argues against those who he sees as espousing "digital post-materialism." He states that "beliefs and practices" surrounding digital architectures "cannot be described as non-material culture, because they involve assigning cultural meanings to tangible features of digital architecture" (Lehdonvirta, 2010, 885-86). Shields, in his sociological examination of the concept of the virtual, argues that it "is clearly in a dependent relation to the actual (in the case of virtual reality, this would be exemplified by its reliance on telecommunications infrastructure, technology and living

bodies)" (2003, 29). Konzack takes a technical perspective on the materiality of games. He insists that not only the virtual layers of gameplay and functionality must be examined, but the hardware and program code layers should also be considered (Konzack 2002).5 Aarseth, also in game studies, characterizes games as "consist[ing] of non-ephemeral, artistic content (stored words, sounds, and images)..." (2003). It is not often that the virtual aspects of games are characterized as non-ephemeral; Aarseth seems to come down clearly on the side of materiality. That said, the technological basis of the existence of virtual goods does sometimes get short shrift particularly in the DVC literature. While it is to be expected that authors in this area would focus on the social and economic aspects of the activities that they are examining, a lack of acknowledgement of the underlying technology can be detrimental to analysis of behaviors that occur in virtual environments. Magaudda in particular is very willing to treat the storage technologies where digital objects exist as black boxes, claiming that these objects are somehow de- and re-materialized (2012, 2011). This perspective has the effect of mystifying digital objects instead of allowing insight into their existence as complex, layered objects with both tangible and intangible aspects. While de- and re-materialization may be the way that participants in his study (Magaudda 2011), conceived of these objects, characterizing the existence of digital objects in this way reinforces the designed opaqueness of the technology.

Values of Virtual Goods

The DVC community has thoroughly investigated different types of economic values as they play out in virtual environments. Martin (2008) redraws the debates around Marxist ideas of use-value and exchange-value as they relate to virtual goods. "In Marx's account of the valuation of goods, use-value is positioned as the ability of a good to fulfill a material but not necessarily a social need" (Martin, 2008). But Martin expands on this view to include Baudrillard's notion of sign value, noting that commodities that have use or exchange value may also have other kinds of value: "through their symbolic application commodities can meet less immediately material but equally important needs such as belonging and identity" (2008). In this way, Martin argues, exchange-value supplants use-value in Second Life. Her perspective on the issue is directly related to the affordances of Second Life. Martin says that in Second Life, "exchange-value has subsumed a use-value that never was, not only because virtual goods are incapable of meeting physical needs, but also because virtual bodies in Second Life are not programmed to have them" (2008). She argues that exchange value is therefore based entirely on sign value in that context.

Sign Value and Community

Online virtual environments are realms in which important aspects of individual identity can be explored and developed (Gray 2009; Thiel 2005; Turkle 1995). The study of material culture also shows that identity construction can be closely tied to consumption and material objects, and sign value has been central to these considerations. "One of the most important ways in which we relate to each other and ourselves is through material objects" (Lehdonvirta, 2010).

Other scholars show how this behavior has manifested with regards to digital objects in general (Odom, Zimmerman, et al. 2012; Kaye et al. 2006), and it has also been shown to extend into the realm of virtual environments (Boellstorff, 2010; Denegri-Knott et al., 2012; Lehdonvirta et al., 2009; Martin, 2008). According to Lehdonvirta, "people consume virtual goods for much the same reasons they consume material goods: to establish social status and live up to the expectations of their peer groups, to build and express identity..." (Lehdonvirta, 2010). Martin argues that virtual goods "sell at an impressive rate for reasons that have... everything to do with meaning, and especially with meaning that producers are able to position in terms of status, belonging, and individuality" (2008). While socializing is perhaps the main purpose of many virtual worlds (such as Second Life), it is important in other types of games as well.

In many hardcore massively-multi-player online role-playing games (MMORPGs), being part of a community is extremely helpful or even required in order to progress in the game. As Ducheneaut et al. state, "most MMORPGs are structured so that players are forced to interact," and quests can often be too difficult for a single player to complete alone (2004). This is not necessarily the case for many casual games, and Juul's work suggests in some ways that it is less likely. One of the advantages of casual games cited by Juul's participants was that they could easily pick up and put down the games. "...Casual game design can reach new players by allowing them to play in short bursts, to interrupt a game and put it on hold... This is the interruptibility found in casual game design, giving casual games flexibility in the time investment they ask from players" (Juul, 2010, 36). One of Juul's participants tells a story about being unable to do this in a hardcore game. "...He was going through a busy spell in his life with little time to play, and his character had consequently fallen behind those of his friends. For that reason his friends refused to play with him anymore-he had become a liability" (Juul, 2010, 127). It is possible that the interruptible structure of casual social games like FV2 makes the formation and maintenance of close social bonds less likely. The potential lack of close social bonds would be important to the values of virtual goods because "goods are endowed with value by the agreement of fellow consumers" (Douglas and Isherwood 1979). Players always decide to purchase or not to purchase virtual goods in a game within their social context for the game. Castronova reiterates this point for virtual worlds, saying that "value is a social construct" (2005, 146) and because people treat virtual goods as valuable, they come to be valuable. The virtual is part of the real because people behave as if it is. The following analysis of FV2 will explore how the structure of a game can encourage (or discourage) people to treat virtual goods as valuable.

Analysis of FarmVille 2 Methods

I examine the game *FarmVille 2* through textual and structural analysis with these issues in mind. Aarseth (2003), Carr (2009), and Consalvo & Dutton (2006), provide guidelines for these types of analysis. As Aarseth points out, "the elements we choose to examine are always predetermined by our motivation for analysis" (2003). Therefore I focus on the digital virtual consumption aspects of the game and their implications for how players might understand virtual goods within the game. Consalvo & Dutton offer useful questions for analyzing in-game objects.

What role or importance do objects have in the game? Is the player encouraged to collect 'stuff' for the sake of having it, or is there utility in most objects? What can be inferred about the economic structure of the game from the pricing of objects, their relative scarcity or abundance? (Consalvo and Dutton 2006)

Carr points out that the method that many scholars in games studies have called textual analysis actually includes elements of structural analysis as well. He distinguishes the two as such: "structural analysis relates to game design and form, while textual analysis relates to signification and to the game as actualized in play" (Carr 2009). All three works emphasize the necessity of playing the game for the purposes of analysis. Carr particularly notes that "play is a situated practice," and that "culturally situated association is part of analysis" (2009). This is an excellent reminder that the player exists in a cultural context outside of the game and that each player experiences the game differently. In a related point, Newman observes that the player interacts with the game as a whole and suggests that although most games "present a central character with which one might imagine the player identifies," the player's relationship to the game "is more complicated and based on engagement at the level of simulation, rules, and systems rather than with a specific or identifiable character" (2009). While I am looking at the entire game as a system with which the player interacts, I also focus on how the game's interface affects the cultural context in which those objects exist for the player. I played FV2 daily on an alternate (to my primary account) Facebook account for just over two months, from October to December of 2012. In that time, I built a network of over fifty FV2 neighbors by adding people as Facebook friends who posted on FV2 forums requesting friends, and by accepting friend requests from mutual friends. I did not personally know any of my FV2 neighbors. I also kept a journal of my game-playing experience, which I used as a reference during analysis.

In FV2, the player has a farm where they can raise animals, and plant crops and trees. These produce goods such as eggs, wheat, and apples that can be sold for coins at the 'market stand.' These goods can also be combined in a 'crafting kitchen' to create new goods that can be sold for higher profits. Crops and trees must be watered in order to produce goods, and animals require feed, which is produced from crops or trees. The player gains experience points (XP) from feeding animals, and from growing crops and trees. Completing quests also produces XP. As the player gains more XP, they will level up, allowing them access to land expansions, and to more profitable crops, trees, and animals. The player's level is visible to their FV2 neighbors. There are two types of money in FV2: coins and bucks. Coins come from selling items at the market stand within the game, but bucks must be bought with real world money. There is no overarching narrative to the game besides that of continued land expansion and wealth acquisition.

Progression within FV2 is very structured. It consists primarily of leveling up, which unlocks more options for animals, trees, crops, and land. Quests are offered to the player based on level progression and depending on the time of year.⁶ There are no particular consequences for not participating in quests (other than slower game progression), because quests are not tied to any overarching narrative. Low consequences for inefficient play or failure is not uncommon in casual games, according to Juul, but he also points out that players tend to get bored with games that are impossible to lose (2010). There is no losing the game in FV2; the only negative consequence of playing poorly is that leveling up will take more time.

Object Values

Virtual goods in FV2 do have use value in game (unlike in Martin's description of Second Life), even if they do not have use value outside of the game context. In FV2, it is exchange value that is edited out of the game (at least in terms of player control), because there is no direct trade between players. Since the game designers set all of the exchange values in the game, the player's only choice is whether or not to purchase an item. This choice, however, does have implications for the presumed sign value of the item as perceived by players. Lehdonvirta et al. introduce the concept of sign value as "the use of goods for building social bonds or distinctions," noting that in this view, "consumers are seen as communicators who use symbolic meanings embedded in commodities to express status, class, group membership, difference or self-identity" (2009). If the only possible value for an item is sign value, the decision to purchase the item connotes that it is seen as having positive sign value.

There are two main methods for progression in FV2. Either the player can spend money, or they can ask for help from friends (referred to as 'neighbors' in FV2). Without doing either of these things, game progression would eventually halt. There are many situations in game where this option between spending monetary capital or social capital is made explicit. See, for example, Fig. 1, in which a dialog box is shown that offers two different ways to acquire sugar for a recipe that the player can complete and sell. The user can either click the Ask button (and send a message to friends requesting sugar), or they can click the money button (and spend two FV2 bucks in order to get the sugar). The repeated choice between asking neighbors for help and spending money that the game requires of players makes it clear why critics like Bogost say, "In social games, friends aren't really friends; they are mere resources" (2010). The phenomenon of players treating social actions in games as instrumental more than social is not limited to the kind of games that Bogost was criticizing with that statement, however. Ducheneaut et al. found that many players of the MMORPG Star Wars Galaxies had an "instrumental orientation to the game" (2004).



Figure 1. Candy Apple crafting screen.

Presumably there is an option of asking friends for special items that are required for progression because the game will be more profitable if there are more players. A related reason for this option might be that if players are forced to pay for items in order to progress, they may feel taken advantage of and quit the game. In a game where there are potential profits as long as players keep playing, player attrition is much worse for the parent company than it is in a more traditional model where the profit comes entirely from the sale of the game itself. Another effect of
this model is that it is preferable to the parent company for players to invite new players to the game, rather than adding friends who are already playing FV2.

Items that players have to acquire by asking friends or spending money have value because they are not available through regular gameplay, which makes them somewhat rare. These semi-rare items generally also have in-game use value. For instance, these types of items can be used in recipes in the crafting kitchen, they can be used to turn a baby animal into an adult animal (desirable because babies do not produce food items that have in-game use value), or they can be necessary to complete a quest. Other, more rare items can only be acquired by purchase using bucks (which, as mentioned above, must be purchased with real money). These items are often either decorative, or are a special version of another type of item that can be acquired without spending bucks. See Figure 2 below, which shows a screen for purchasing animals where some of the babies can be purchased for coins, which are available through selling objects that can be created in the game. Figure 3 shows a purchasing screen for animals that are only available for a limited time and must be paid for with dollars. Martin notes that "by only releasing single units or limited edition runs of a particular item, developers have tried to ensure that their goods retain their status and value in Second Life" (2008). Presumably, the designers of FV2 were trying to create the same situation.



Figure 2: Animal purchase screens.

These special animals do produce goods within the game and therefore have in-game use value in addition to sign value. Everything that they produce, however, can also be acquired from other animals as well (animals that can be purchased with coins). It is never necessary to purchase a special animal rather than a regular animal in order to obtain a particular item. There are also many decorative items in FV2 that can be purchased with bucks. These items are often seasonal, which adds to their rarity, but they do not have any use value within the game. Their only purpose would seem to be to allow players to express their individuality and impress visitors to their farm. In other words, the only kind of value they have is sign value.

Community and Sign Value

Identity construction relies, in a very broad sense, on social interaction and community. In order for digital objects to perform identity-related functions, they must be available in community contexts. This is where the role of digital objects in FV2 does not quite play out in the ways other authors have discovered in other games. In FV2, player interaction and community formation is stilted by the game's structure.

Alternate Accounts

One of the most interesting phenomena I encountered while playing FV2 was how players integrated the game into their Facebook use. Many players seemed to be playing the game through alternate Facebook accounts instead of their primary personal accounts, developing a second Facebook network specifically for the game. These players would often use screenshots from FV2 as their Facebook profile picture, and make their Facebook name game related (calling themselves "Farmer Fran" or "Fran Ville," for instance). I also saw several Facebook status updates of statements to the effect of "This is the account I use for playing FarmVille 2, if you don't play this game you should delete me." These players tended not to have personal information available in their Facebook walls. Not all players I encountered appeared to be using alternate accounts for FV2, but many of them did.

One reason for creating a secondary account could be to avoid overwhelming non-FV2 playing friends with FV2-related posts. Wohn et al. noted that two non-players of social games in their study expressed annoyance with the onslaught of game-related activity posted to their Facebook pages by friends, and another participant spoke of a game-playing friend "polluting" her page (2011). Boellstorff also found that some Second Life players used alternate accounts in order to complete instrumental, non-social tasks (2008, Ch. 5).

The decision to use an alternate account for playing FV2 could also be related to social stigma. Juul described the stereotype of the casual gamer as someone who "has a preference for positive and playful fictions, has played few video games, is willing to commit little time and few resources toward playing video games, and dislikes difficult games" (8). Bogost characterized games like FarmVille as, "challenge-free games [that] demand little more than clicking on farms and restaurants and cities and things at regular intervals" (2010). However, without talking to players directly, there is no reason to assume that they are aware of these kinds of characterizations.

By using alternate accounts, FV2 players could develop networks of other players who they could rely on to help them in the game and avoid irritating their real world friends on their primary profiles. Using an alternate account does not necessarily preclude playing the game socially, but that appeared to be how some players were using these accounts.

Game Structure, Identity, and Community

Player interaction within the game is very limited. There are no public spaces within the game environment. The only spaces within the game are the player's farm and farms belonging to other players, which can be visited once one player accepts another as a neighbor through the game interface. There is no way within the interface for players to talk to each other directly, although the fact that the game is embedded within Facebook makes communication between players possible. Player communication is limited to sending gifts, aiding in quests, and visiting other players' farms and performing helpful actions there. This last possibility is essential for the importance of decorative digital objects in FV2 because when visiting another player's farm, the visitor can observe how the visitee has organized their farm and if they have any decorative or rare objects out on display. Lehdonvirta et al. argue "contemporary consumer culture also entails the creative mixing of consumption styles in a project that resemble artistic expression" (2009). There is potential for this kind of expression through a player's arrangement of their farm in FV2. This makes aesthetic choices about farm arrangement and item display the primary mode of self-expression within the game. Theoretically, the lack of textual communication could make the sign value of objects more important as one of the few means of communication. But it does not work out that way because sign value depends on shared cultural values, and those are not necessarily in place for players in FV2 who are not already playing as part of a community.

Therefore despite the ostensibly social nature of FV2, the game structure does not promote initiating new relationships that are anything more than instrumental relationships. Surface social behaviors, such as giving gifts that cost the user nothing, are promoted. Since players are actually prevented from communicating with one another through the game interface, neighbors become tools that the player can use to beat the system instead of being friends. A good neighbor, in FV2, is willing to click on a button to help, provided that they are helped in return. Talking to one's neighbors is not necessarily 'good neighbor' behavior, and could actually be viewed negatively as not in keeping with the instrumental nature of 'friendship' in this context. If there is no real community being formed, then there is very little incentive to impress one's neighbors. If there is no reason to try to impress neighbors, there is no reason to buy digital objects because there are no established sign values for those objects. In fact, there might be distinct reasons not to buy those kinds of objects because of the game's structure.

These reasons can be partially explained by Lessig's discussion of types of economies. FV2 is what Lessig would call a hybrid economy (2008). The player's relationship to Zynga is a commercial one. Although it's possible to play the game without spending money, the interface makes clear to the player that their primary relationship to Zynga is that of consumer to producer. In relationship to other players, however, the player is part of a sharing economy. There is no possibility, in-game, of exchanging money with another player, or even exchanging goods in such a way that the player has anything to lose. The FV2 sharing economy is clearly "thin sharing economy" in Lessig's terms, as it is primarily based on self-regarding motivations (Lessig 2008). There is no reason to give anyone help within the game if you do not believe they are going to return the favor. As the candy apple scenario demonstrated, the game pits the commercial part of its economy against the sharing part. One of Lessig's observations about hybrid economies points out the pitfall for Zynga in this scenario:

That link [between the sharing and commercial economy] is sustained, however, only if the distinction between the two economies is preserved. If those within the sharing economy begin to think of themselves as tools of a commercial economy, they will be less willing to play (Lessig 2008).

Lessig is not specifically talking about games in this quote, but his argument applies in the case of FV2. The structure of the game pits all of the players against the game designers and the company producing the game. However, it is possible that instead of discouraging players from playing at all (as Lessig expects), this state of affairs might encourage them to play in a different way. It becomes a part of the gameplay to beat the company. Players may do that by avoiding spending money in the game-by not participating in the commercial economy. The player views the game as a system (Newman 2009), and the way to beat the system is by progressing without spending money. For players who are viewing the game in this way, virtual goods in FV2 that cost real world money have negative sign value instead of positive.⁷

Avenues for Future Research

These findings raise questions about the places of digital objects in the lives of their users and how the social contexts of these objects may affect their values in the eyes of their creators. In games, are players less likely to view digital objects as valuable if the context is unimportant to the player as a social environment? Are digital objects belonging to players seen as more valuable in heavily social contexts?

Because the design of this research (as a textual and structural analysis done by a single researcher) is not generalizable, there are many avenues in which the findings of the paper could be pursued. Studying the experiences of more FV2 players directly is a clear next step. One way to investigate the questions that arose from this study would be to compare gameplay experiences between one group of players who played with people who they knew personally before playing the game, and another group of players who did not. A study of this kind could potentially confirm or undermine my argument that the closeness of ties within a social network may have an effect on how players in that network assign value to virtual goods. Another fruitful path might be to explore the connections between social context and the values of virtual goods in other virtual environments.

Conclusions

The inclusion in FV2 of objects that have no in-game use value and are valuable solely for their rarity and potential to help the player construct their identity in the eyes of other players implies that the objects have the capacity to be significant for players as objects in themselves. However, in my gameplaying experience, this potential was undermined by the game's structure and interface, and the lack of a community context. It is important to reiterate that this lack of community context stemmed from the fact that I was playing the game on an alternate account, not within a pre-existing community, and the experience of someone playing within a pre-existing community could have been quite different.

The materiality of the virtual goods in the game-their relationship to and reliance on the physical storage media on which they are inscribed-is hidden from the player by the structure of the game and its media storage defaults. The FV2 interface does not have a 'save' option. Games are automatically saved to Zynga's cloud storage, but the player is not able to choose when that occurs. This emphasizes the lack of control that the player has over the game, and their distance from the physical existence of objects that they collect and purchase within the game. This supports my expectation that virtual goods in SNGs are some of the 'most virtual' of digital objects. Shields's observation that "the details and material conditions by which the virtual has been brought into everyday life are concealed" (2003, 151) is especially true in the case of virtual goods.

This analysis has established that there is a possibility for players to consider this most virtual kind of object as a 'real' object, but further exploration is needed in order to investigate how players actually conceive of and interact with objects in FV2 and other free-to-play games. Although further empirical research that directly engages players on the subject of DVC in SNGs is needed, I suggest that there is a possibility of a kind of negative outcome for theories of material culture in situations where no meaningful social network exists. The possible outcome that virtual digital possessions in games are less important to players when there is no meaningful social network would tell us a great deal about digital virtual consumption, and pave the way for comparisons with digital possessions outside of gaming. Because of the widespread popularity of SNGs like FV2, these investigations have broad implications for how many computer users conceive of and interact with digital objects in these contexts.

Endnotes

- (1) FV2 alone had over 59 million players as of November 2012, accord ing to Facebook's App Center page. However, it is not clear how many of these are active players.
- (2) "Goods that exist only within a virtual environment and the comput er servers on which they are housed" (Martin, 2008).
- (3) See for instance Bonnie Mak's *How the Page Matters*, particularly Chapter 5 on "The Digital Page."
- (4) In some SNS games, the player is given an option to store some game data on their computer (perhaps to free up storage space for the parent company), but I was never presented with this option in FV2. Additionally, a colleague, Julia Bullard, pointed out that this also has the positive effect of improving loading/latency times (personal com munication, May 2013).
- (5) Aarseth's response to this approach was that in general, not all of the layers Konzack implicates are equally interesting or important, and that "few [games] present us with real innovations in more than one or two [layers]" (Aarseth, 2003).

- (6) Since FV2 is a real-time game, quests are often related to holidays (generally Western holidays such as Thanksgiving and Christmas).
- (7) This is not to say that I believe this is necessarily the view of the game that all players have. It is, however, a view of the game that is pos sible and even encouraged by the structures of the game's economy and interface.

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Ascension: a Case Study in Deckbuilding Games

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A Prelude (to Madness)

It's 2am on a Monday morning. I'm ready to call it a night when my phone lights up, signaling that it's my turn. I could simply ignore this and make my next turn after some sleep. Instead I tap on the game's icon, and, just as I start, a tiny light in the corner of the screen shifts from red through yellow to green; my opponent is online, and there's no way I'll sleep anytime soon. The person on the other end is my friend Doug, and for a few months in late 2011 we indulge in a nightly ritual of playing at least two complete games. We are playing the card game *Ascension* (Gary et al. 2010) implemented as an iOS application, and what follows is an account of how it has impacted my thoughts on game design, physicality, cycles, conversations, probability, and life.

Ascension is a turn-based, deckbuilding game. Starting with the same set of ten cards in a personal draw pile, each player pulls her own hand of five cards every turn. These five cards provide resources for the acquisition or defeat of six cards drawn and laid out face-up in a persistent center row. Acquired, defeated, used, and unused cards all retire to the player's unique discard pile at the end of each hand. If a player's draw pile runs out, her discard pile is reshuffled into a new one, thereby making previously purchased cards available on later turns. Players defeat monsters to earn honor tokens from a central pool, but significant amounts of honor may be gained by purchasing specific, honor generating cards. Once the honor pool is depleted, the player with the most honor—the sum of her honor tokens plus value embedded in most purchasable cards—wins. It is safe to say that *Ascension* rekindled my love of tabletop games. Aside from acquiring the physical game, including its four expansions, I have been on a board-, dice-, and card game binge. My living room looks like a sampling of the top five-hundred games on boardgamegeek.com (2013). I own ~175 tabletop games at this point, and I am constantly adding to the collection, which, thanks to living within the confines of New York City, will necessitate a culling session in the near future. Despite my "real" life in videogame design and research, where the physical medium is mostly invisible, my love of tabletop games grows steadily. The ubiquity of (online) opponents, my tendency to favor strategically deep games such as *StarCraft 2* (2010) and *Chess*, and having tired of the sameness I feel in many contemporary single player video games, I long for the intimate play and conversation of two-player (and sometimes three- to six-player) games.

And I've come to understand that, for me, there's no better place for this than in the practice of playing at a table. This may not seem like much of an epiphany to others, but it is a realization that remains personally meaningful: I favor the "game" over the "video".

But it all started with *Ascension*. A card game. A deckbuilding game. Played on a phone. My player profile shows six-hundred and ninety 1v1 games (played on the iOS version) with a win/loss of 364/326, or 1.12. This is at least some indication that I have tipped the odds ever so slightly in my favor. Or at least this is what I would like to believe. In the absence of an Elo-like rating system, who knows? What I do know is that I'm enjoying it, that the designers at Stoneblade Entertainment have modified the formula devised by Donald X. Vaccarino's in his seminal game *Dominion* (2008) in critical ways, and that my gut feeling tells me we have only scratched the surface of what is possible using in-game deck manipulation and cycling mechanics.

Deckbuilding

Ascension is a card game, played with a deck of custom cards. It comes with a board for card placement as well as some plastic gems that are used to form the honor token pool—or their virtual equivalents (see Figure 1 below). It's a deckbuilding game in the contemporary, post-*Dominion* sense. The key contrasts here are with deck customizing genres, such as the collectible card game (CCG) form popularized by *Magic: the Gathering* (1993). In *Ascension*, each player starts with the same ten cards in personal draw piles. On her turn, the player takes five cards from the top of that pile into her hand (drawn at the end of her last turn) and uses the abilities on these cards to acquire more powerful cards, cull weaker cards (thereby removing them from play), draw more cards from the draw pile, and/or defeat monsters for honor points.

At any given time six face-up cards occupy the center row (a random mix of heroes and monsters drawn from a central pile). Beside this row reside the two standard purchasable hero cards, the mystic (+2 runes) and the heavy infantry (+2 power); runes and power are the resources used for purchasing and defeating, respectively, cards from the center row. Next to the standard heroes dwells the cultist card, which can always be defeated for one honor token at the expense of two leftover power points. At the end of a turn all purchased cards, as well as any cards played on this turn (used) or remaining in the player's hand (unused), go into the player's discard pile, and she draws five new cards. If her draw pile runs out at any point, the discard pile is shuffled to form a new draw pile, thereby "re-cycling" her entire personal deck.



Figure 1: Round one of *Ascension*, with 60 honor tokens left (top center). The bottom player has 5 cards in-hand (bottom row) with which new cards can be acquired. Here we see 5 heroes and one monster (in red) on the center row. This is an especially fortunate first round, as the player can acquire either "Lionheart" (gain 3 honor + unite) or "Ascetic" (draw two cards).

Unlike in CCGs, *Ascension* integrates the deck construction aspect (the act of creating one's own custom collection of playable cards) into the core game system, and the player cycles her entire deck multiple times per game. I believe these to be the two defining features of the deckbuild-ing genre. The player is essentially, through careful deck manipulation (i.e. acquiring and culling), designing an *engine*. Acquiring or culling cards—if these actions are available on any given turn—provide *strategic choice* about card synergies and proportions, because acquired cards will appear in-hand only after being shuffled and randomly drawn (see Figure 2 below). Similarly (and this is especially true in the mid- to late game), the sequence in which a single hand plays out provides *tactical choice* and opportunity for short-term optimization.

Deck manipulation occurs under game state-specific resource and availability constraints that, depending on player choice and the randomized population of the center row, may turn out to be hopelessly insufficient... or produce a crushing victory. To see a beautifully-designed engine play out is quite mesmerizing, much like an expertly executed combo in *Super Street Fighter 4* (2010). The obvious differences between the two reside in their spatiotemporal discretization (i.e. turn-based vs. real-time) and divergent demands on player dexterity. But given that the player creates the engine in a deckbuilding game, it arguably generates a greater sense of agency and tactical accomplishment. *Puzzle Strike* (2010) provides a shining example of this concept, where each deck represents a character in the Fantasy Strike universe; the player performs moves, but she also develops her character as part of the battle and thus co-designs the game's dynamics.





Figure 2: A game in its early stage (56 honor, see top screenshot). The player has a tough decision to make. For five runes, one of either "Lionheart", "Treasures of the Study", or "Dreamer's Glass" could be acquired (bottom 3 enlarged cards). All of these cards work well in an "honor rush" strategy. Given

that the game is only in round four, Dreamer's Glass (DG) may be the best choice (it allows the player to place card from the hand under DG, then draw a new card). But, once in play, the opponent may destroy that construct, forcing the player to place all cards under DG into the discard pile. Perhaps Lionheart

is less of a risk? And what is the opponent eyeing and looking to acquire?

To avoid ambiguity, some potentially contentious points are worth mentioning: genre descriptors and key terms. While M:TG allows offline, pregame deck construction and drafting, the deckbuilding genre described in this article has no pre-game component. For the most part, every player starts with the same basic and relatively weak deck, as is the case in *Ascension*, where players start with 8 apprentices (+1 rune) and 2 militia (+1 power).¹ This can also be stated as *uniform initial conditions*, which is not generally the case in M:TG.

The second unique concept is *cycling*. In *M:TG*, cycling means to draw (or search for) a desired card within the draw pile at the cost of the card allowing the cycling ability.² While this does speed up access to the deck, it does not necessarily "re-cycle" it. The term cycling finds its truest implementation in deckbuilding games, where players regularly reshuffle the entire deck. Acquired cards may amortize their own cost simply by seeing more than a single use per game. I use the terms *deckbuilding* and *cycling* throughout this article, but they should not be confused with their counterparts used in popular CCGs.

The Characteristics of Ascension

As has been described more eloquently by others, much of what makes a game does not reside in the static description of its rules (Hunicke et al. 2004, Wilson 2012). And while an analysis of how design parameters influence the dynamics of the game is interesting in its own right, I will first describe some typical game situations and gradually introduce what I perceive to be the defining parameters of the game, including their variations and instantiations in different deckbuilding games.

In the most basic terms, a turn of *Ascension* consists of (a) putting cards into play (playing them from ones hand to the table), (b) following the instructions on the played card (e.g. draw more cards, banish a card in the center row, etc.), (c) adding up power and/or runes of played cards, and (d) acquiring or defeating cards (while following the instructions on defeated cards). It is important to note that, especially in the mid to late game, the sequence of these actions is of great importance; each purchase or monster defeat will change the state of the center row (a new card is drawn to fill in the vacant slot), and there are no strict limitations as to how many available cards can be acquired or defeated.

Early, Mid, and Late Game

The dynamics of *Ascension* are, to some degree, correlated with the notions of early, mid, and late game and their (deliberately fuzzy) transitions. Look at the setup for a 1v1 game: Starting with sixty honor tokens, and given that the end condition is the depletion thereof, at any given point in the game the remaining honor tokens can be seen as a *game timer* of sorts. It is not a timer in the traditional, "one-tick-per-turn" sense but rather as a variable rate at which players defeat monsters and play hero abilities, both of which deplete honor points from the finite pool. And the rate at which honor is gained tends to accelerate as the game progresses, depending on whether players "rush" or "stall" by acquiring and playing fast (aggressive) or slow (economy) cards, respectively.

Despite the aforementioned fuzziness, I like to think of early, mid, and late game in terms of an equal split of the honor pool into three ranges of twenty honor points each. The game-winning honor points can be gained through the token pool (mostly by defeating monsters in the center row) but also by acquiring hero and construct cards that come with honor points printed on the card. Unlike defeating monsters, these do not deplete the token pool. And it is clear that the designers intelligently use each card's cost-effect ratio to balance the game. The most efficient, sustainable early game cards are affordable and provide low endgame honor points, but they have a strong overall effect on the game's shape if cycled often. Strong late game purchases cost a lot but reward high honor, ideally returning honor for runes spent at a 1:1 ratio.³

Availability

Can one always know that a given card makes good early, mid, or late game acquisition? How does this decision change given different contexts and match dynamics? These questions dominate *Ascension*'s robust metagame. Writers on the *Ascension* forums convincingly argue against the existence of purely dominant strategies (Stoneblade Entertainment 2012). The source of complexity here—and much of the contention to the game raised by its critics—resides in the randomness of center row *availability*, which marks the game's major departure from the fan-favorite *Dominion* (2008).

In Dominion, players select a set of ten kingdom cards from (as of this writing) 187 possible kingdom cards, each having a unique ability. This card selection may be done at random; it could also be designed for specific dynamics by the publisher or its more intrepid devotees. Once selected, only ten of each of these cards exist within the bounds of a single session. In other words, the players need to collectively acquire (in Dominion's jargon, the term is "gained") a card ten times to deplete it. High-level Dominion players can look at the available kingdom cards at the beginning of the game and try to form an overall strategy. Some people perceive this as a puzzle-element inherent in the game's initial condition, to figure out a priori which cards might work well in combination. Much of the fascination of playing *Dominion* stems from playing a chosen strategy in light of other players' strategies, which force its characteristic endgame rush for victory points at variable rates and degrees of predictability. Ascension's version of availability is much simpler. Players shuffle all heroes, constructs, and monsters into a single deck, making 6 of them available at any given time. This requires that players constantly adapt to the shifting game state.

Card Types and Points

The version of *Ascension* I have played the most mixes cards from the second and third expansions, *Rise of the Fallen (RotF)* and *Storm of Souls*

(SoS). Most of my regular opponents find the base set—*Chronicle of the Godslayer*, or *CotG*—to be lacking in variation. Of course, players often say the same of vanilla *Dominion* (or vanilla *World of Warcraft*, for that matter). Center deck cards in *CotG* don't allow for much interesting combination, and they often simply represent stronger versions of the basic cards (enhanced buying or killing power).

Players seeking more depth tend to quickly retire the base set in favor of the more advanced expansions. Mixing *RotF* and *SoS* creates a center deck of 165 cards, forty of which are monsters, thirty-six are constructs, and the remaining eighty-nine are heroes. To recap why one might prefer this or need to know it, every time a center row card is purchased or defeated it is immediately replaced with a new card from the top of the center deck. The forty monsters are worth 134 honor points total, meaning that, in general, a 1v1 game will not result in the center deck running out of cards (because only sixty honor tokens exist in the finite pool).

The heroes and constructs vary in cost, ability, and rarity. Each belongs to one of the four factions of *Ascension*'s light fiction: Enlightened, Lifebound, Void, and Mechana. These groupings roughly follow functional or mechanical styles, coupling the actions they afford to themes from the game's lore.

Enlightened cards mostly act as "accelerators" that allow the drawing more cards from one's draw pile, but this family also contains cards that cull other cards in favor of standard heroes, banish cards in the center row, and defeat monsters without paying their power cost. Lifebound compositions are all about passively acquiring runes and honor tokens the key metaphor being that of plant life—placing purchased cards on top of the draw pile instead of the discard pile, and capitalizing upon powerful combos that trigger after playing multiple Lifebound heroes in a single turn. Void cards focus on accumulating combat power and banishing cards from one's hand or discard pile, so players tend to use them in so-called "rushdown" builds designed to weed out weak cards while quickly defeating monsters; this rapidly depletes the honor token pool and ends the game before an opponent's engine can gather momentum. While each of these three factions have a ratio of about 3:1 (on average) between heroes and constructs, the Mechana set consists mostly of constructs; these cards stay in front of the player, forming a "tableau" with powers that may trigger on every turn. In concept, this is similar to the critically acclaimed tableau-building game *Race for the Galaxy* (Lehmann 2007), from which *Ascension* also borrows its end condition of depleting a points pool.

Strategy

Given a variety of pure strategies—such as the aforementioned rushdown, or the Mechana/construct feedback economy, or racing for strong center row cards, and numerous combinations and corner cases—it becomes hard to describe the dynamics and shape of a "typical" game of *Ascension*. Playing the game requires adaptation to the ever-changing state of the game communicated through the honor pool, center row cards, and purchase history (i.e., the potential abilities) of each player. Different play styles emerge when an opponent reacts to one's cues toward an obvious strategy, or when she makes idiosyncratic decisions due to a commitment to a specific strategy, or when players react radically differently to a given center row configuration. "Mixing it up," or making oneself less predictable, is just as important in *Ascension* as in *Super Street Fighter 4* or *StarCraft 2*. Mixed strategies pay dividends when the center row leans towards a paucity of monster cards for long stretches of a match.

Boardgame aficionados often refer to deckbuilding games as "multiplayer solitaire" games, due to the limited interaction between players. Specifically, they subscribe to the design strategy of eliminating targeted interaction, which European tabletop games helped to popularize. Actions in *Ascension* rarely target a specific player (this depends largely on what

expansions one plays), but one key feature differentiates the game quite drastically from *Dominion*: the shared game state via the center row cards and their manipulation. This concept also exists in *Thunderstone* (Elliott 2009) in the form of a shared dungeon with monsters.⁴

Center row manipulation—whether through the acquisition, defeat, or banishing of cards—shows the passage of (game) time, and this directly influences many decisions. Here is one (admittedly complex) example: If a player possesses cards that control the center row, such that powerful monsters can be banished or defeated that would otherwise allow the opponent(s) to destroy valuable constructs, that player may decide to acquire constructs that may otherwise not be worth the runes. Or if a player has a few runes remaining at the end of her turn, she may decide to purchase a standard hero (Mystic or Heavy Infantry), instead of acquiring a center row card, thereby passively creating opportunities for her opponent. Sometimes it makes sense to avoid buying something that's worth X, especially if X is less than the expected value of a random new center row card for the opponent.

Players often race to buy or banish powerful cards with a high rune cost. This mostly occurs in the early game, when players repeatedly find themselves strapped for runes they need to kickstart build strategies. This situation becomes especially interesting if an inexpensive early game card is also available—one example being the Lifebound construct "Everbloom" which, at a cost of only 3 runes, provides one honor token per turn once it is in play. There's a danger of overcompensating in an attempt to increase the likelihood of drawing a sufficient number of runes, but a skilled player can offset this by adding accelerating Enlightened cards that also allow extra card draws.

Integration and Accessibility

The aspects that most likely explain the critical and commercial success of the deckbuilding genre are the *integration* of deck manipulation, and

the resulting *accessibility*. While the set designs of *Dominion* and *Ascension* have become rather complex—and new, card-specific strategies are cropping up all the time—getting started is relatively easy. The first few turns of every game, which may feel a bit slow for experienced players (and there are equivalents in high-level *StarCraft 2* opening builds or *Chess* openings), are a blessing to the beginning player. Someone less familiar with the game can experiment from a clean slate every time they play, without having to overthink every single decision in the early stages of the game.

Ascension affords experiential learning (Kolb 1983) and does not require in-depth study of a complex set of rules. Seen through a different lens, players simply deal with game states and complex decision-making situations when they occur, and one needs not immediately see the bigger picture when acquiring to or culling from one's deck. This has helped me get non-game people into Ascension and Dominion on more than one occasion. Try teaching an inexperienced player to design a deck in M:TG, and watch their eyes glaze over, if you'd like to see the inverse effect firsthand.

Cycling

Cycles are beautiful. Their patterns and variations are ubiquitous in nature and our lives. It should come as no surprise that shaping a deck, then seeing elements appear multiple times in diverse and calculated constellations, would share this beauty to some degree. Mitigating randomness through strategic choice and thereby loading the dice in ones favor is, at least for some people, one of the pleasures of life. We yearn for signs that, despite overwhelming signs of a necessary chaos, there exists some form of choice and agency. And in this register, deckbuilding games reveal an "eternal return of the same." This property, invoked through the discard and drawing deck rules (but also through cards that accelerate the deck) are inherent to all deckbuilding games. Nowhere is this cycle as elegantly integrated into the theme as in the solo deckbuilding game *Friday* by Friedemann Friese (2011). Inspired by the novel *Robinson Crusoe* (Defoe 1719), *Friday* presents the player with three decks: Robinson, hazard, and aging. The Robinson deck represents the player's current abilities and deficiencies, with which one can go up against hazards; the player must decide which of two randomly drawn hazards to confront per turn. The player defeats hazards to add abilities to her deck, or sometimes she deliberately loses against them to allow for the culling of weak cards from the Robinson deck at the cost of life points (the player starts with 20).

As the hazard deck cycles, the challenges increase in difficulty through three stages. As the Robinson deck cycles, one aging card shuffles into the deck at random. Operating on the assumption that aging divorced from the attendant increases in wisdom or tool-use (becoming physically more feeble) is not beneficial to one's survival, these cards are not only useless, but harmful, subtracting from Robinson's attack power. As mentioned earlier, player agency is tangible in Friday, as one is forming a character; the deck represents Robinson, and the player is combating both island hazards and the effects of aging. I prefer playing Friday as a cooperative game with friends, thereby involving more people in the discussion, but I would recommend that anyone interested in deckbuilding games play this game at least once.

The Parameters of Deckbuilding

Given the features of *Ascension*, and numerous playthroughs, one begins to see how it differs from its brethren. Game designers have a tendency to introduce adjustable knobs in their systems, and then they tweak them to facilitate a specific game feel; this might be seen as a dramatic arc making the game interesting to play, something Frank Lantz calls "gameshape" (2012). Unsurprisingly, deckbuilding games have many such knobs, and their commonality (along with some shared mechanics) is what defines the genre. A few of the most important design variables include:

Initial conditions. In *Dominion* and *Ascension*, all players start with a deck of ten identical cards, thereby allowing for any possible strategies. In contrast, *Puzzle Strike* (Sirlin 2010) introduces the notion of character specific starting decks, thereby making unique strategies (rushdown, economy, defense) more or less viable for each individual.

Available slots. Many deckbuilding games, including *Dominion* and *Ascension*, use a standard hand-size of five cards per turn, but newer games such as *Legendary* (Low 2012) allow players to draw six cards.

Available cards. While *Dominion* makes ten piles (of ten cards each) available, and *Ascension* randomizes the availability of six cards via the center row, a game like *Core Worlds* (Parks 2011) requires a more elaborate, predetermined setup that makes explicit in which round (out of ten) specific sets of cards become available.

End conditions. While the aforementioned *Core Worlds* (Parks 2011) ends after a fixed number of rounds, *Dominion* and *Ascension* both end with the depletion of some obtainable resource: card pile(s) or honor tokens, respectively.

Win conditions. Most deckbuilding games use some notion of victory points (VPs) to determine the winner—though *Puzzle* Strike, with its goal of being the last player standing" after a turn-based melee, represents a divergence here. The key difference in *Dominion* is that players can only acquire (most) VPs by purchasing expensive cards that have no ability other than their VP value. Thus, they provide crucial points towards the win state while progressively weakening the hand-to-hand effective of the player's deck; when drawn into the player's hand, they block a slot that might otherwise be used to build the engine or acquire more VP. This may be one of the most elegant examples of a balancing feedback loop (catch-up) in a game system, and it is surely one of the reasons many players find themselves drawn to *Dominion*. The key strategic decision lies in figuring out when one's engine reaches a powerful enough stage to afford a "watering down" by expensive Province cards and force the end condition... all the while observing the engines and purchasing behaviors of one's opponents. *Ascension*, on the other hand, exemplifies a reinforcing feedback loop (otherwise known as "snowballing") that only gathers momentum, and requires capping.

Many more parameters exist, such as types and number of resources, and these can be split into *first order* and *second order* parameters. Typical first order resources are gold (*Dominion*) or runes and power (*Ascension*). But *Dominion* also provides second order, indirect resources, such as *actions* and *buys*. Specifically, the game limits the player to one action and one buy per turn unless cards are played that add to these quantities. *Ascension*, while increasing complexity by adding a first order resource (power), simplifies this process by removing actions and buys altogether, thereby allowing the player to play, acquire, and defeat as many cards per turn as there are runes and/or power available. In general, and as mentioned above, this tends to facilitate more tactical variety (i.e. combinatorial complexity of play sequence) per turn.

Corner Cases and the Concept of Density

Most games will see players picking different pure or mixed strategies, and they hope that the center row availability of the early, mid, and late game matches their chosen strategy. Given the honor point value of every single card (excluding the initial ten cards), a player generally uses runes to purchase as many cards as possible on her turn. But with respect to the chosen strategy, especially in a rushdown, many cards will merely weaken the overall composition when added to the deck. This is not unlike the VP cards in *Dominion*, although the distinction as to whether a card is too weak to be acquired—and especially in which stage of the game this might be true—is significantly less obvious. *Ascension* heroes and constructs are *never* only VP cards, but they also have varying abilities, some of which are significantly better than others. In other words, one is trying to maximize the density of *strategically relevant* cards in one's deck, while avoiding cards that could get in the way or dilute the deck. This is especially important when multiple cards need to show up in the same turn to maximize their efficiency, such as Lifebound "unite" abilities that trigger when two or more such cards have been played on a single turn. Whether this happens through culling weak cards, predominantly purchasing Lifebound cards, or drawing more cards on one's turn (or a combination of all of the above) is mostly dependent on center row availability and opponents blocking the strategy by acquiring the cards needed to complete the picture.

I use the term "strategically relevant" above for a reason: While it might seem obvious to cull the ten weaker starting cards as soon as possible, there are some corner cases where knowing which card will be drawn next is a blessing. The "Great-Omen Raven" card makes a good example case for this principle. The action on this card is as follows: "Name a card. Reveal the top card of your deck and put it into your hand. If it is the named card, gain 3 honor" (from the honor pool)."

In one particularly unique game, I had the rare opportunity to acquire two such cards (at a cost of two runes each) on my first turn. I added these cards to my deck with full knowledge that, in order for my chosen strategy to work, I would not be able to purchase any more cards for the remainder of this game. I'd need to guess correctly every time I used the Raven, gain three honor points from the pool each time, and thereby rush down my opponent without defeating a single monster. And of course this would only work by keeping the initial, high density of Apprentice cards (8/12 = 0.67) constant. The game ended after thirteen rounds, and the strategy almost worked: I lost 57 to 53, or close enough to justify more experimentation.

Players have a tendency to point out such rare corner cases as "broken" or "degenerate," but, given the rarity at which they occur, I classify them

as the occasional outliers that reveal under-explored depths to the game's mechanics. These corner cases add to the lifespan and beauty of the game.

A less rare case of interesting choice occurs when one faces the decision to sacrifice a non-trivial card for a potentially greater benefit. I once found myself in a situation wherein, about halfway through the game, I was able to acquire a Mechana construct worth 7 honor, but only if I was willing to banish a heavy infantry card (+2 power). I had been playing a rushdown strategy (where power is key), but my opponent had been doing the same with slightly more success. I decided to make the sacrifice. By switching to a mixed rushdown/economy strategy, and through no small amount of luck (I was able to use said Mechana construct to acquire another valuable construct), I ended up winning the game by four points.

In hindsight, I wonder whether this was the key move of the game. Of course, from the point-of-view of the overall systemic complexity inherent in the game, it is nigh impossible to answer this question. But, as a player, this moment felt salient; more than any other move in that game (none of which I recall) it added to my living, cognitive book of *Ascension* heuristics.

On Winning and Losing in Ascension . . . and Other Games Losing streaks in *Ascension* can really crush your soul. Whether attributed to a series of bad hands or lucky center row availability for the opponent, or to my own inadequate mental models, heuristics, or mix-ups, tensions flare in the heat of the (drawn out) moment. Only after stepping away can I see the intricacies of the system; only with careful reflection can I recognize the series of bad choices I made. It is in situations like these where it would be simple to fall back to the Devil's greatest trick: Saying "it's just a game." Why would I indulge in the painful, hard work of postgame analysis? In competitive play, the level of disappointment I feel in my own skills as a player is directly proportional to my time investment. One could liken the excruciatingly slow real-time strategy (RTS) game *Neptune's Pride* (2010) to the Stanford Prison Experiment. Take a short political game, redesign it to last weeks instead of hours, and sit back to watch the fireworks. The results are fascinating, ranging from alliances to back-stabbing to heated discussions. More than any other recent videogame, *Neptune's Pride* has anecdotally impacted real-life friendships in meaningful and far-reaching ways (RPS 2012).

But Neptune's Pride's time investment is forced, not optional. One game can take many weeks. In other words, *going deep* is not optional, but par for the course. I am at odds with this, as I tend to prefer what Randy Smith once termed "depth on demand," meaning that one "gives players a high rate of success but lets them pursue additional accomplishments to truly master it" (Smith 2010). Elias, Garfield, and Gutschera in *Characteristics of Games* open with the important parameter "length of playtime" (Elias et al. 2012). They differentiate between atom, game, session, and campaign. While the atom within a game of *Neptune's Pride* is much shorter than the duration of an entire game, I seem to be more interested in the atom. Perhaps my personal preference favors optional engagement over the mandatory.

Leading back to *Ascension* and deckbuilding, I prefer games where I can have a compressed experience. A game that shows me all the nuance, depth, computational complexity, and meaningful choice in a matter of minutes or hours, such that a session can be completed in an afternoon at most. Deckbuilding games have this intrinsic quality. They afford exploration of the possibility space in short but varied bursts by allowing the player to see the entirety of one's construction multiple times per game. Depth results from arrangements, combinatorics, and density. In simpler terms, I get to have it all, the cost being said intense streaks of losing—with a rapid turnover rate in matches, reflection and repair often comes only after a series of poor performances. This somewhat mirrors my experiences as a scientist, designer, writer, and artist, constantly inquiring and testing... and failing more than succeeding. It's in my nature to ask falsifiable questions and to test my often erroneous assumptions. The surprise, and catharsis, of this probing play- and work-style comes when an assumption turns out to be true, when cards cleanly combo, when some causal connections can be made and some heuristics adjusted, or when some unlikely sampling of all possible game states does come to pass. I've dedicated my life to having this probabilistic conversation, even though, at times, it can feel like I'm losing my mind. But, in the end, and despite the brutal reality of Sturgeons Law, the highs outweigh the lows.⁵

Hybrids

The current trend in deckbuilding game design is to merge deckbuilding mechanics with any number of other mechanics, and some games have done this to great effect. One of the more popular games emerging from this fertile ground of experimentation is Vlaada Chvátil 's *Mage Knight* (2011). *Mage Knight* is a board game that simulates a role playing game in which players explore a randomly generated world comprised of hexagonal tiles, acquire influence to recruit mercenaries, and defeat monsters for points.

In *Mage Knight*, the passage of time and the abilities of each player are determined by each player's deck of cards, and players expand this deck of cards by conquering landmarks. Conversely, deadweight wound cards are added to the deck if a player is hurt in battle, and these can only be discarded by resting—thereby using up an action. Once a player has cycled through the deck, the round ends, and a new round begins with a freshly shuffled deck. Chvátil's design elegantly combines elements from RPGs—such as experience, time, player stats, and alignment— with the design and cycling of a deck of cards. Due to each card having multiple possible abilities, of which only one can be used per hand, every hand feels like solving a puzzle or optimizing a machine.

While describing all available hybrids (or even the currently available deckbuilding games) at sufficient length is outside the scope of this article, it is worth mentioning that the core mechanics of deckbuilding games have found their way into two-player area control wargames. In *A Few Acres of Snow* (Wallace 2012), the deck models the uncertainty of armies and supply lines. And *For the Crown* blends *Chess* with deckbuilding to generate unconventional pieces and movement rules.

The Evolution of a Game, its Players, and its Designers

If the current popularity of *Ascension* is any indicator, we will see more uses of its core mechanics in other games. Ideally, the key ingredients integrated deckbuilding and cycling—will mesh in novel and meaningful ways with the play systems and fictive themes of newer works. Whether used as a standalone game mechanic or merged with other genres to form entirely new systems, experiences, and genres, the play dynamics afforded by crafting and cycling are too numerous for designers to have already plumbed their depths within the past few years.

Sometimes a play community complains about the stagnation of a celebrated subgenre, and there has certainly been a backlash against deckbuilding games in recent months. Some developers seem to want to squeeze every last drop out of the game that *Dominion* invented instead of working on the next big thing. *Dominion* already has seven (!) expansions, and *Ascension* is on its fourth expansion. For fans of a specific game, including myself, these expansions add to the experience. On the one hand, they contribute to world-building and exploration through themed deck design. But they also add to and iterate on mechanics. While I appreciate this as a player, the designer in me longs for radically different uses of the core mechanics, both in systems and how they are tied to theme.

But I should not complain too much. It does not often happen that we see a distinctly different type of game mechanic emerge. Deckbuilding

games provide us with an accessible way to experiment within a closed system, only using relatively simple operations that require little to no prior experience. They allow us to evaluate our possibly flawed heuristics, ideally making these flaws transparent such that we may adjust them accordingly. Having this conversation about the design and relative value of the game's elements, through the play of the game, is one of the most enjoyable aspects of playing Ascension and other deckbuilding games. The games that I enjoy most are those that allow a player to design her own "version" of the game, ideally surprising the community with strategies never conceived by the game's creators. Recently I have taken to the re-release of Richard Garfield's "Living Card Game" Netrunner (2012), but I still gravitate towards the *clean slate* of deckbuilding games. They contain just enough depth for me to make competent strategic decisions without necessarily dedicating my life to them. Having played so many of these games in the past two years, I am inclined to design my own variant. Some preliminary notes exist, and there will be characters, drafting, learning, evolution, pacing, and battle. If I could only find the time to design an initial set of cards and cycle through the iterations needed to improve the design!

StoneBlade entertainment recently ran a successful Kickstarter campaign for *Ascension Online* that will be available on PC and support online tournaments. I assume (and hope) that the designers will include a robust Elo rating system, so as to reward skill and study against evenly-matched opponents. Only then will I truly know how bad I am at this wonderful game.

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Endnotes

- David Sirlin's *Puzzle Strike* (2010) does not have uniform initial conditions, although they can be implemented by using the same starting chips, if one owns two copies of the game.
- (2) "Magic: The Gathering: Cycling" (2013) Available at http://wizards. custhelp.com/app/answers/detail/a_id/235/~/magic%3A-the-gather ing%3A-cycling (accessed May 2013).
- (3) See Gutschera's (2007) excellent treatment of this topic in the context of balancing *M:TG*.
- (4) I like to think of *Thunderstone* as the *Diablo* (1996) of deckbuilding games.
- (5) "Ninety percent of everything is crud," Theodore Sturgeon (1958); similar to the Pareto principle, see http://en.wikipedia.org/wiki/ Pareto_principle.

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