Creating Critical Gameplay

Designing affective player experiences

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THESIS STRUCTURE

This thesis consist of two main components – First is a theoretical exploration of "critical gameplay design" and the role of player affect in facilitating such gameplay experiences. After the different terms are defined, I explore the practices and techniques that can be used to generate player affect. The second component is a small production –the first person platforming game *Deconstruction*, in which I demonstrate the main principles behind the techniques for affect and critical gameplay design and how to utilize them.

The written component of the thesis is roughly divided into three parts. **Part I** focuses on establishing the terminology and scoping down on the problem of player affect and generating critical gameplay. Chapter 1 will first etymologically define the notion of critical gameplay to ensure a clear, consistent idea of what designing "critical gameplay experiences" should aim towards. At the same time the philosophical roots of the relationship between generating emotional affect and provoking critical reflection will be explored. The means by which digital games are capable of generating affect and player emotion will be explored in Chapter 2, with special attention paid on the difference between mechanical and semiotic layers of a game experience. This is done in order to establish understanding that not all gameplay-facilitated emotions are efficient getaways towards critical reflection in players.

Part II of this thesis deals with how the representational (semiotic) properties of a game can be used to generate affect. In Chapters 3 to 5 I will explore a variety of already released digital games and the techniques they use to generate player emotion and provoke a state of critical reflection in the players. I will focus on the use of Building Context (Chapter 3), Presenting Consequences (Chapter 4) and Player Consent (Chapter 5) as key aspects of Critical Gameplay Design and point out individual techniques for using those in order to facilitate critical gameplay experiences for the players.

Part III of the thesis is an exploration of how of the techniques explored in Chapters 3 to 5 were put to practice in Deconstruction – the production part of this thesis (Chapter 6).

In the final Chapter 7 I would draw conclusions on the importance of the techniques for player affect in practice, point out at some of their successful applications in Deconstruction as well as some failings and grounds for improvement in both the production itself and the Critical Gameplay Design approach suggested.

Deconstruction – the game production for this thesis, consists of two levels in which the player is given control over a character, on a personal journey through a purgatory like state, as he tries to recall and come to terms with his choices and the events that affected his life. Deconstruction aims to show how establishing context, communicating consequence of player actions and using players choice and consent can be used in practice to communicate a socially significant and problematic concept and at the same time offer a satisfying player experience in its own terms.

PART I – CRITICAL GAMEPLAY AND PLAYER AFFECT

CHAPTER 1: DEFINING CRITICAL GAMEPLAY

When attempting to identify "critical gameplay" and designing for it a natural starting point would be to first take time and identify the terms composing it.

Starting with "gameplay", while there are plenty of debates[1] [2]in game theory of the nature of what defines the "action or process of playing a game"[3], as a portmanteau term "gameplay" itself is rather straightforward. Initially introduced by game critics and journalists and widely adopted by players, "gameplay" is what ludically defines the game from start to finish - the continuous, active exchange loop between the player input and the game's response as a cybernetic system.

In a more concrete definition given by Aki Järvinen in his "Games Without Frontiers"[4] gameplay is *"the sequence of game mechanics, realized in the feedback loop between the players and the game"*(Järvinen, 2008, p.258). Such sequences are made available either by design or emerging as affordances of the game system. Gameplay is thus the key defining feature of a digital (or other) game.

Defining "critical" on the other hand will require a bit of a deviation from the game field, into the history of philosophy. In Kantian terms, "critical reflection"[5] is a process of consideration and intellectual engagement towards a problem, directly linked to the notions of Kantian Ethics and the

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[1] **Rollings, A. & Adams, E.** (2003) *"Rollings and Adams on Game Design"*
New York, New Riders Publishing
[2] **Ermi,L. & Mäyrä.F**. (2007) *"Fundamental Components of The Gameplay Experience"*
In **Castel,S. & Jenson,J.** *"Words of Play: International Perspectives on Digital Games Research"*
New York, Peter Lang Publishing
[3] As defined by the Oxford English Dictionary. Available at:
http://www.oed.com/view/Entry/319024?redirectedFrom=gameplay#eid
[4] **Järvinen, A.** (2008) *"Games Without Frontiers: Theories and Methods for Game Studies and Design"*
Tampere, University of Tampere
[5] **Kant,E.** (1975) *"Critique of Pure Reason"*
 New York, RB Press

categorical imperative.

At the core of critical thought for Kant lies the notion of the *categorical imperative*, a moral binding towards good based on a reason[6] (Bennet, 2005). For the process of critical evaluation to emerge the individual must rationalize the meaning of their own actions and thus go through the process of **contextualizing** a problem to the categorical imperative – a rational binding "towards betterment" (Kant, 1975).

Executing the imperative begins with first becoming aware of the actions and their consequences. Once aware of the problem we are able to project our understanding of a situation and its outcomes and evaluate them as positive or negative for us or the others. By association then the problem before us must be able to generate affect in us strong enough for the process of evaluation to begin. The second step is simple: possessing this awareness and motivation to reflect, we are then to apply a rational judgment action – at which point we are already in a state of critical awareness.

In existentialist Nietzschean terms emotional affect and critique are also linked together [7] – it is almost impossible for that level of investment towards the issue we are reflecting on to not be combined with a state of **emotional affect**[8]. After all would we dedicate focus and attention on a matter if we did not consider it of personal importance and significance?

Even in Arestotelian philosophy and ethics we can find elements that support the relationship between emotional affect and ability of critical evaluation in ethics. In his *Nicomachean Ethics*[9], Aristotle takes a

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[6] **Bennet, D.** (2005) "*Ethics at Glance"*
London, Regis University
[7]**Nietzsche, F.**(1997) "*Untimely Meditations"*
Cambridge University Press
[8] **Nietzsche, F.**(1992) "*Ecce Homo "*
London, Penguin Books Limited
[9] **Aristotle (**1911), "*Nicomachean Ethics"*
 MIT Press

naturalistic stance towards ethics defining it through the practice of "*eudemonia* - the desire to flourishing towards good" – an act of realizing the virtue inherit in human nature[10].Thus for Aristotle the emotional affect - the desire for "flourishing towards good" plays a defining role of what potentially leads to ethical reflection.

Finally, a prominent philosophical interpretation of "critique"[11] is the idea of the indirect dialogue – A process of critical reflection is in a way a dialogue that the reader/viewer/player/user engages in with both himself and the piece of media he experiences, which on its own expresses the views of its author. In order for them to do so, they must be affected and engaged with the problem or idea the media presents them with. Simply put – **we must find a provocation** – an angle we care for in the media experience we are being presented, to think and consider what our experience with it is and how it concerns us.

From the above etymological analysis a natural way to think of "critical gameplay" would be as a **category of player experiences and activities within the context of a digital game, which are capable of engaging the user on an emotional level, to a point of conscious reflection over their significance and the player's involvement.** The idea of critical analysis is also often associated with levels of reflection, exceeding in depth and scope the dimensions and context of the original piece which inspired it[12]. The design of critical gameplay in that sense would also refer the **creation of player experiences that go beyond the original context and provoke player reflection on the level of personal significance**.

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[10] **Annas, J.** (2011), "*Intelligent Virtue*"
Oxford, OU Press
[11] **Ashenden, S. & Owen,D.** (1999) "*Foucault Contra Habermas*"
London, SAGE Publications
[12] **Eco, U.** (1989) "*The Open Work*"
Harward University Press

Also, already at this point in the above philosophical notions of critique and critical thinking, the recurrence of the elements of **establishing context, evaluation of consequence and individual choice** becomes apparent. It is exactly those notions, that slightly transformed (as Context, Consequence and Consent) become the key groups of design practices I would suggest

 as an approach towards creating critical gameplay. How these are used and made manifest in existing, released digital games, will be explored at length in Chapters 3 to 5 of this thesis.

In conclusion, having etymologically narrowed "critical gameplay" it would seem that we should start by exploring the problem of how to generate player affect – the emotional impact that will result in critical reflection. Thus the first question we need to answer is:

"How do we generate enough emotional investment in players through the game experience, so that they come to consider it a game experience worth reflecting upon?"

CHAPTER 2: MAKING PLAYERS CARE - PLAYER AFFECT AS A GATEWAY TO CRITICAL GAMEPLAY

2.1. Engaging Players – Player "care" in game research

After defining "critical gameplay" in the previous section it seems like facilitating for critical thinking and experiences for players becomes a problem of player affect – getting players to "care". But how do we get the player to care about the gameplay they participate in? How do we get them to care about the game experiences they help facilitate with their own interactions?

In this chapter I would explore what I consider are two main aspects of player "care". Understanding the difference between them is key to narrowing down the design tools we at our disposal for generating critical gameplay.

Being interactive media artifacts, games excel at using their rules[13], structured interactive systems[14] and feedback loops[15] for engaging and affecting players in order to establish a sense of engagement and personal investment in the activities the game focuses on.

The means by which games achieve that are the individual types of pleasures or needs that players satisfy through the activities in a digital game. The different goals players aim at – emergent or by design – are a direct representation of what players care about in their game experience.

It goes without saying that through the history of ludic research the various types of players,

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[13] **Juul,J.** (2005) "Half-Real: Video Games Between Real Rules and Fictional Worlds"
MIT Press
[14] **Caillois, R**. (2001) *"Man, Play and Games"*
Chicago, University of Illinois Press
[15] **Norman, D**. (1988) *"The Design Of Everyday Things."*
New York, Basic Books Publishing

understanding how to engage them and get them to care, has been explored at great length, starting with Richard Bartle's work on player types[16] and going all the way to contemporary Persona Theory. [17]

The study of play – both in physical and digital games – has also covered nearly all possible angles of the appeal of the act of play to players, including, but not limited to:

- The act of playing and its performative value to the players[18]

- Agency, authorship and the empowerment of players through the act of play. [19]

- Aesthetic and narrative contextualization of the game system, and player participation in it.[20]

While not explicitly stated as player "care", the problem of understanding what aspects of the game experience players aim towards and how to appeal and design these various "pleasures of play", has been explored at great length in the many different works on both game design and digital game theory. In *"The Game Design Workshop"*[21] Tracy Fullerton explores "what makes fun" in an entire chapter by analyzing the different types of pleasurable play activities and emergent goals players normally engage in(Fullerton, 2008, p.312-346). Similarly in *"Games without Frontiers"* Järvinen explores the problem of player enjoyment and provoking the interest of players in Chapters 8 to 11 (Järvinen,2008,pp.167-246) putting special emphasis on the different means of generating emotion in play and the impact of player emotion on choice and decision making.(pp.222-224).

[16] **Bartle, R.** (1996), *"Hearts, Clubs, Diamonds, Spades: Players Who suit MUDs"*
Available at: http://mud.co.uk/richard/hcds.htm
[17] **Canossa, A.**(2009) *"Play-Persona: Modeling Player Behavior in Computer Games"*
Copenhagen, Danish Design School Press
[18] **De Koven,B.** (1978) "*The Well-Played Game"*
MIT Press.
[19] **Mateas, M. & Stern, A.** (2005) *"Procedural Authorship: A case study of the interactive drama Façade"*
In *"Proceedings of Digital Arts and Culture 2005"* IT University, Copenhagen
[20] **Murray, J.** (1997) *"Hamlet on The Holodeck"*
New York, Simon and Schuster
[21] **Fullerton.T** (2008) *"Game Design Workshop"*
Amsterdam, Morgan Kaufmann Publishers

Lastly player involvement and the affective potential of games has been studied in the context of the universal appeal of "The Game" as a contextualized set of practices within the "magic circle" in which special behavioral, rule-restricted and goal driven interactions take place. Naturally the exploration of this aspects starts with Huizinga[22] and has since then been a continuously present topic in ludic research.[23]

2.2. Mechanics and Semiotics – Two Paths towards Affect

As diverse as the problems and approaches to player investment in games have been and as granular the analysis of games and the play experience might seem, I would argue that identifying the means by which to generate affect – and thus establish critical player experiences - can begin by looking at one prominent line of separation in the study of games. Said line would be the at this point canonical distinction in game research, between player engagement based on the **mechanical properties** of a game experience and its **representational elements**.[24]

On one hand is the understanding of the player experience in relation to the individual game mechanics and the emerging challenges they offer. On the other is the engagement and player fascination, based on the semiotic layer – the game world and the context in which those mechanics are presented, explained and necessitated. This distinction between semiotic and mechanics was most thoroughly explored and defined by Espen Aarseth in his work *"Cybertext – Perspectives on Ergodic literature"*[25] where he at length explores the roles of the mechanical and semiotic layer and the way they inter-relate towards the final player experience.(Aarseth,1997,pp. 221-235)

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[22] **Huizinga, J.**(1955) *"Homo Ludens: A Study of the Play-Element in Culture"*
Boston, The Beacon Press
[23] **Perron,B. & Arsenault,D.** (2009) *" In the Frame of the Magic Cycle: The Circle of Gameplay"*
[24] **Frasca, G.** (2003): *"Simulation versus Narrative"*
In **M.J.P. Wolf & B. Perron** *"The Video Game Theory Reader"* New York: Routledge, pp. 221-235.
[25] **Aarseth, E.** (1997): *"Problems in Computer Semiotics"*
In **Aarseth,E.** *"Cybertext: Perspectives on Ergodic Literature"* Baltimore and London, The Johns Hopkins UP.

The distinction between mechanical and semiotic can be made when looking at the affective means by which a digital game's design generates the pleasures of play – the recreational activities players seek in games. In order to elaborate on this we should look at another work of Järvinen's – *"Understanding Games as Emotional Experiences"[26]*.

In this publication, Järvinen explores how game experiences are made manifest through game elements that are meant to ensure the generation of said experience – thus the design of certain elements is de facto the design of experiences and emotions.

As an example a scenario - a game seeking to create the experience of tension would use changes in the game rules about player movement(slow the player down), particulars of game environment geometry and lighting(dark, narrow spaces) and complexity of challenge(powerful, aggressive AI driven enemies) to ensure the feelings of tension emerge in the player. It is exactly exposing the players or ensuring their successful interaction with these elements of the game, that the players experience and come to care about, and it is that which can be used to provoke critical reflection and thus generate critical gameplay.

If we follow the semiotic/mechanic dichotomy and combine it with the above approach of designing for the generation of affect and care via the design of game elements, we can connect this "affective design" of either semiotics or mechanics and see it emerge as distinction between the various types of "pleasures of play" in existing theory.

In *"Beyond Games"* Järvinen explicitly recognizes the importance of Context, Game Worlds, Characters and fictional Ecosystems as essential elements to player appreciation of a game, on the same level as purely mechanical aspects such as rules, components and attributes(Järvinen,2009,pp.63-88) . Fullerton in a similar matter recognizes Living out Fantasies, Exploring the fictional world, Story and Social Interaction as pleasures of play on the same level as the concrete goal oriented activities such as

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[26] **Järvinen, A.** (2009) *"Understanding Video Games as Emotional Experiences"*
In **M.J.P. Wolf & B. Perron** *"The Video Game Theory Reader 2"* New York: Routledge, pp. 85-109.

Collection, Destruction, Domination over competition and so on. (Fullerton, 2009, 312-317)

On the other hand the means by which mechanics related components of the game experience can generate care and affect (even on a physiological level), have been the subject on well-established long term interest both in the domain of game studies and sports - be it the rules and setup themselves or particular gameplay situations and players reactions to them.

In conclusion I would propose using mechanical or semiotic layers as also forming two "groups" of elements in "game design for affect", that would be of benefit to explore by both designers and researchers when it comes to understanding games and what makes them compelling – what makes players experience emotion and desire to continue playing.

2.3. Differentiating mechanics and semiotics generated affect

Starting from the idea that the mechanical layer of interaction and the semiotic layer of interpretation are both capable of provoking emotion and getting players to care, even if via different means, in this section I would like to point out the differences in the type of affect generated, and particularly: Why mechanical layer-facilitated player emotions are not my focus when looking into generating critical player experiences?

It goes almost without saying that mechanical elements and the emergent activities based on these – things such as executing game mechanics, utilizing the rules and the emergent scenarios that happen in gameplay based on those rules - can provoke strong player reaction and ensure engagement.[27] A key

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[27] **Klimmt, C. & Hartmann T.** (2006)"*Effectance, self-efficacy, and the motivation to play video games."*
In Vorderer P, Bryant J," *Playing videogames: motives, responses, and consequences."*
NJ: Lawrence Erlbaum Associates, pp. 153–169.

point in the ludology/narratology[28] confrontation is exactly the discussion on the ability of game mechanics on their own to drive the success of the player experience by the pure engagement power of agency and rule-based interactions/problem solving.[29]

The emotions of satisfaction, pride, anger, frustration or disappointment that emerge from these can be extremely strong and there is no doubt that they are a major draw, especially in the context of certain genres or the overall multiplayer experience of a game. [30]

But if we return to our original definition of critique and thus – critical gameplay – affect on its own is a needed factor to provoke care, but it is not enough to provoke critical thinking. A reflective state of mind that defines critical thinking in the Kantian sense is indeed based on affect, but it is also the *conscious process of consideration and evaluation of an event or action that we consider of personal importance.*

 I would argue that given the immediate, almost impulsive nature, of emotions emerging from player experiences on the mechanics level of interaction with a game, these rarely provoke the players to reach that conscious reflective state of mind. Furthermore, as engaging as the emotional states related to the mastery of game rules and their execution via mechanics can be, mechanics based affect is directed not only towards the game itself and its ability to provoke critical reflection, but the experience of the player's own grasp of the game as mechanics and a meditative tool towards a goal.

In more simple terms the affective states generated in the player by the mechanical layer, are as much emerging from the intentional design of the mechanics, as they are from the emergent goals the players set for themselves, based on their ability to execute these mechanics towards a goal. The game's mechanics, their design and implementation, are only a facilitator of these emergent scenarios – affect

[28] **Perlin, K.**(2004) *"Can there be a form between a game and a story ?"*
In Wardrip,N. & Harrigan, P. (2004) *"First Person: New Media as Story, Performance, and Game"* MIT Press
[29] **Eskelinen, M.** (2001) *"The Gaming Situation"*
Available at: http://www.gamestudies.org/0101/eskelinen/
[30] **Drache, A. & Pedersen, A.** (2010) *"Correlation between heart rate, electrodermal activity and player experience in first-person shooter games"* New York, ACM Publishing

and emotion are indeed generated, but their presence is based on the emerging player experience and might in many cases not be intentionally designed.

I would like to clarify that the above statement in no way means that mechanical layer facilitated affect is incapable of being designed for or result in critical gameplay or reflection. As said earlier, being able to generate strong emotion, especially in multiplayer context the mechanics-facilitated affective states can in their own serve as the basis of critical gameplay experience[31]. Yet that reflection is in a way unpredictable and more likely to be in relation to the improvement of the players own performance or the achievement of emergent goals, than focused on the nature of the game as an artifact in its own right, designed to be experienced in certain ways.

The emergence of critical reflection during a player's interaction with a game's mechanical layer, is thus more likely the result of a player's individual needs and the design is simply a factor that can trigger their presence.

Also designing for the emergence of emotions on the basis of player performance or presumed reaction to the mechanics and their execution would require deep understanding not only of the game and the gameplay that it makes possible, but player patterns of processing information, understanding, and reaction to various audio-visual stimuli. The design of player experiences on this level of cognitive processing and sensory perception is fascinating and heavily considered amongst metrics driven design in its own right already.[32]

However trying to establishing a framework of player affect from that perspective that would be more in the domain of research into HCI and Cognitive Science, than the condensed, design centric "start kit" for critical gameplay design this thesis is meant to be. As such the design of emerging emotional

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[31]**Wang,C. & Chu.Y.** (2007) *" Harmonious Passions and Obsessive Passion In Playing Online Games"*
In *"Social Behavior & Personality Journal. 2007"* Vol. 35 New Zealand, Society for Personality Research
[32] **Canossa,A. & Tychsen, A.** (2008) *"Defining Personas in Games Using Metrics"*
In "Proceedings of the 2008 Conference on Future Play: Research, Play, Share" pp. 73-80 New York, ACM Publishing

engagement and critical consideration based on a digital game's properties as facilitated by their mechanical layer will not the focus of this thesis work.

I would suggest that if thinking of the most "tangible" ways to identify techniques for provoking player affect and designing towards critical gameplay we should be looking at the semiotic (alternatively referred to as "representational") layer instead.

2.4. Designing the Semiotics – Towards Critical Gameplay

And so - this thesis project will explore the ways in which the design of semiotic layer – The representational elements of a digital game that mediate the meaning designers intended to communicate through the mechanics - can be used to generate affect and critical distance. Elements of representation in a digital game would include things like the use of environments, contextualizing interactions and presenting various events, as well as the player participation in those events. As these elements are by necessity created by the developers themselves – their nature and role in the player experience as being able to provoke affect is within the control of the designers.

Mechanics and interactive freedom by necessity leave the final player experience in the players own hands - The semiotic layer and designing its particulars and details on the other hand fall almost entirely within the domain design intentionality. Even if their appearance and experience is part of a process that is ultimately in player control – the act of freely interacting with the game – the semiotic properties are almost never the subject of change due to player interaction, beyond the scope of what was designed.

The geometrical layout of an environment will remain as designed, even if in different states, no matter the player participation – so would the placement of assets, the nature of sounds, the behavior and

appearances of characters or the role of player actions in the long term development of a game's narrative.

Naturally, it is within the player's power how they interact with an environment, how they move, explore, change or perceive it, or what will they achieve or fail to do. However it is entirely in a designer's field of influence to ensure what the player is exposed to as environments, contexts and interactions, what is possible to change as well as the significance of these elements, in the context of the game experience they are designing.

This discreet authorial control that a designer can exercise over the individual blocks that define a players understanding of the game experience and its meaning is exactly where designing for affective experiences and critical gameplay can occur.

So how could a game designer utilize the semiotic layer the player is exposed to in order to generate affect and by association– critical gameplay experiences?

One approach would be directing our design efforts towards the elements of the game world and situations in gameplay that the player is exposed on moment to moment bases – ensuring that our environments, our sounds – our interactions – are all fine-tuned to the message we are slowly trying to pass along.

Making affectively designed elements so prominent and even trivial that the player could simply not avoid being exposed to those in their agency, even if they do not initially acknowledge. The lights in an environment, the specific of audio ambience, the state of a character in relation to the game world or regular player actions with feedback of significance– all of these, even if not dramatically pronounced, if consistent and coherent enough, can accumulate as bits of affective design and intention, and push the player towards a desired critical agency and perception on the meaning of their experience.

Another direction, and perhaps the currently more popular one in both big-scale commercial productions and independent development, is the strong authorial control over the player experience

by simply directing gameplay itself and limiting interactions – either for a limited duration, or throughout the length of the game – in order to ensure the affect generating elements are being experienced or observed. A few such techniques would be taking control over the camera in order to show an event of significance, or making progression impossible until a certain choice has been made, or ensuring that the player's interactive repertoire carefully matches the intended behavior.

Game critics[33], researchers[34] and designers[35] have already engaged in discussion on the efficiency of these two uses of the semiotical layer. These discussions mostly center on the problems the more direct "directorial" approach in limiting player agency has and the negative effects of non-interactive presentation, or extremely limited interactivity, when used to present emotionally charged or narratively significant moments.[36]

Coming to understand how currently released titles, aiming at creating critical experiences for the player, utilize the different tools games have at their disposal and what are the underlying techniques that can be identified was the starting motivation for this thesis and the game project attached to it – judging the "superiority" of one of the above approaches over the other was never the goal. In Part II of this thesis I will look at examples of games that utilize both the discreet and the more direct authorial approach towards control over the presentation in order to generate affect, while trying to identify the similarities and shared design practices. At this point, the question is simple:

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[33] **Rivers, J.** *"From Quake to Call of Duty – For better or worse"*
At http://www.thegamerschallenge.com/featured/from-quake-to-call-of-duty-have-fpss-changed-for-better-or-worse/ Last visited: 08.04.2014
[34] **Juul,J.**(1998) *"A Clash Between Game and Narrative"*
At http://www.jesperjuul.net/thesis/ Last visited: 08.04.2014
[35] **Troisi,A.** (2009) *"Get Your Game out of my Movie! Interactive Storytelling in Mass Effect 2"*
Lecture at GDC 2009, slides available at : www.gdcvault.com Last visited:30.11.2012
[36] Destructoid - *"Cinematic is anti-game"*
At http://www.destructoid.com/-cinematic-is-anti-game-159102.phtml
Last Visited :08.04.2014

"What would the techniques to establish affect be and how have they been used in game productions –

either commercial, independent or entirely authorial – so far?"

PART II

Context, Consequence, Consent

THREE TECHNIQUES TOWARDS CRITICAL GAMEPLAY AND THEIR APPLICATIONS

As the axiom goes a game designer's main goal is naturally the creation of systems and feedback loops towards "interesting choices"[37] ending with particular grounded goals, progression or quantifiable achievement that the player can aim for. Yet at the same time the design of the context and particular use of systems and feedback loops can be used in the same way to create not simply interesting choices, but interesting experiences that influence the way the player perceives their role in the game world. Thus, player's own interpretation of their participation in the game world, can serve as the driving force and player's involved role in the events can further catalyze the potential for inspiring emotionally engaging, reflective thought.

By setting up particular scenarios or environments, presenting game events and situations in different ways, ensuring players obligation towards taking a certain course of actions, or simply limiting interactions, the designer can utilize the gameplay process itself as an interactive provocation. The player involvement and affective investment, can thus be used as a holistic "trigger" directing the player's flow of thought towards certain critical thinking and the evaluation ideas or problems.
In this section of the thesis I would aim to explore what elements of the design are used to create such interactive provocations in games and establish affect in the player and provoke critical reflection.
I would suggest and explore 3 main categories of design techniques that can be used to generate affect:

-**Creating Context** (Chapter 3)

-**Presenting Consequences** (Chapter 4)

-**Using Player Consent** (Chapter 5)

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[37] Sid Meier, quoted
In **Rollings,A,. & Morris,D.** (2000), "*Game Architecture and Design*" p. 38 Coriolis Group Books

The reason I chose such division came both after the observation of existing digital games and the common points game designers used to provoke player emotion, as well as the recurring role of the ideas of **context** and **consequence** in critical thinking according to philosophy, already discussed in Chapter 1.

Consent came as a natural evolution of the idea of "choices in games". The elements of player choice[38] and their design often play an important role in the various discussion making mechanics of digital games and their ability to create meaningful experiences to players[39]. However as Miguel Sicart – one of the key researches on the topic - points out in his work *"Beyond Choices: The Design of Ethical Gameplay"*, choice is hardly a requirement for creating ethically or emotionally significant experiences[40]. As an alternative I would suggest the use of the term Player Consent – the conscious awareness for the act of playing and agreeing to participate in game activities and events, even if no alternative to your in-game behavior are given. This idea is already actively explored and utilized by developers when trying to provoke player considerations.[41]

CHAPTER 3. BUILDING CONTEXT

Building Context is the first of the techniques for generating affect and critical gameplay I would try and define. It is also the one that is entirely grounded on the existence of the semiotic layer. While

[38] **Thue,D.** (2010) Player Agency and the Relevance of Decisions
 Edinburgh, EU Publishing.
[39] **Morrison,B**. (2013) *"Meaningful Moral Choices in Games: A practical Guide."*
Available at:
http://www.gamasutra.com/blogs/BriceMorrison/20131119/204733/Meaningful_Choice_in_Games_Practical_Guide __Case_Studies.php Last Visited: 06.03.2015
[40] **Sicart,M. (**2013) *"Beyond Choice: The Design of Ethical Gameplay"*
 Copenhagen, MIT Press

[41] **Zagal.M** (2009) *"Ethically Notable Videogames: Moral Dilemmas and Gameplay"* DePaul University Press

Presenting Consequence and Using Player Consent are made manifest via the semiotic layer, they can also be understood as interpretations of the mechanical layer of the game. Building Context however is essentially the design of what is identified as "evocative narrative elements" – the design of events, objects and spaces. Due to the nature of these elements, designing for Building Context is de facto designing the semiotic layer of a game experience, that the player will get to come in contact with, experience and interpret. Put simply *Building Context and the techniques for that that will be discussed in this chapter are the means by which we "ground" the game system – make it's rules, playfield and goals relatable and meaningful to players.*

Understanding the efficiency of building context as a technique towards player affect and critical gameplay can best be done via the following example. Let's take a game, in which the player is put in first person interactive control over a game agent. (*Picture 1*)

Picture 1
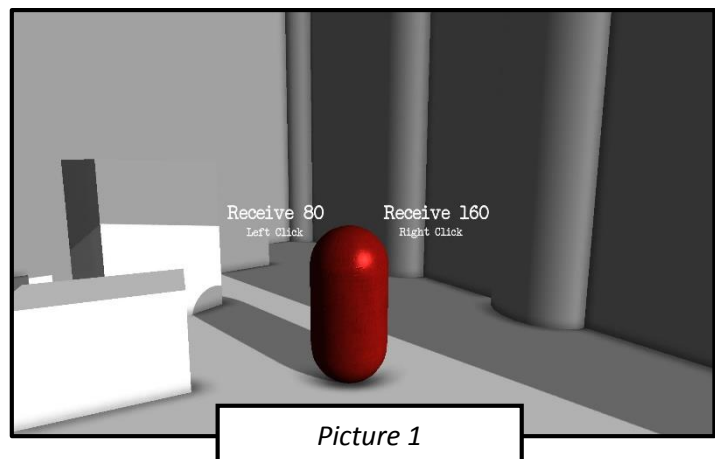
The player moves through an environment and eventually approaches a game object. When in interactive radius from the object the player is prompted, by on-screen GUI, to press either the right mouse button to receive 160 points of a valuable in-game resource or press left mouse button to receive 80 points of said resource. If the player crosses a second diameter around the object - the object is moved slightly backwards – no more than a meter. However it remains intractable. After the player presses either button the game object will disappear and the player receives the resources. If we assume player is goal and progression driven and utilizing the resource will make further progress easier and help further gameplay challenges(and naturally – player has basic grasp of mathematics), what is the player likely to choose ?

Now – Let's recreate the same game situation, however add the various game elements that establish its semiotical layer and thus **build context**:

The player moves in first person throughout the decrepit environment of an underwater metropolis. The arching hallways are filled with broken furniture, strange machinery and human bodies - all around the player there are signs of chaos and social unrest that ended violently. The
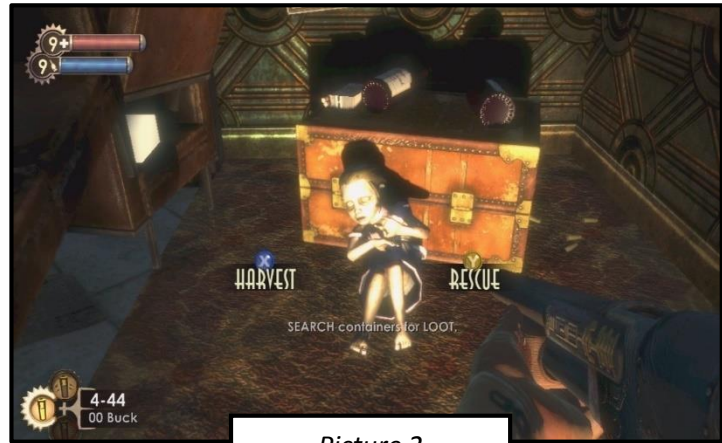
Picture 2

electricity supply is unstable and lights flicker, sporadically covering everything in thick dark blue shadows. In those moments of darkness the sound of water leaking and the constant creaking of the oceans pressure create a feeling of claustrophobia and ever-present danger.

The player was recently been attacked by the mutated inhabitants of the city – humans gone mad and mutated by the overuse of Adam – a substance that allows for re-arranging the genetic code of an individual and can give humans new, almost magical abilities.

As the player navigates the underwater city he hears the sound of a child sobbing. As he moves on, the player soon sees in a flickering spotlight the child - a Little Sister – a small girl that has been genetically altered to harvest Adam from dead bodies. – Her dress is worn, torn and covered in dirt – her small legs and arms are so thin they seem malnourished. The Little Sister is sobbing over the dead body of a Big Daddy – a genetically modified guardian. The Little Sister ignores the player until he enters interactive radius – At that point she turns towards the player to reveal an over-exaggerated childish face, crowned by two non-human yellow glowing eyes. *(Picture 2)*

The Little Sister screams out in terror and keeps looking at the player.

At that moment the player is prompted by an on-screen GUI to either press Button A to "Harvest" the Sister for 160 Adam or "Rescue" her for 80 Adam. Harvesting results in the death of the Little Sister,

while Rescue restores her to a more authentic human state. If the player approaches the Little Sister closer he crosses a second diameter. At that point the Little Sister screams helplessly and stumbles backwards as she tries to move away from the player. The intractable prompt remains. The player knows that the Adam is an essential resource for the progress of the game. What is the player likely to choose?

This singular example from *Bioshock* (Irrational Games, 2007) explored above, is enough on its own to illustrate how Building Context can be used to generate player affect and elevate an act of economical judgment ("160 points of Adam VS 80 points of Adam") into a moment of critical gameplay("Am I capable of harming a child?").

Since its release in 2007, referring to Bioshock and its Little Sisters character, as well as the dilemma they offer, has become almost trivial in the circles of both game critics and theoreticians of game design. The representations of various ideologies[42] in the game and the potential use of the game to teach philosophy[43], the specific impact of its story on the issue of ludo-narrative dissonance[44] and perhaps most importantly in the context of critical gameplay - The ethical dimensions of the "Little Sisters choice" raging from brilliant praise[45] to Miguel Sicart's criticism of the scenario being "ethically bad" due to it economical reductionism[46]

However the above signature scenario from Bioshock's player experience is simply "too good to miss" as a perfect example of a meeting point for all the 3 approaches to Building Context that will be

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[42]**Packer, J.** (2010). *"The battle for Galt's Gulch: Bioshock as critique of Objectivism"*
In *"Journal of Gaming & Virtual Worlds"* 2(3) University of Pittsburgh Press
[43] **Schulzke, M**. (2013*). "Simulating Philosophy: Interpreting Video Games as Executable Thought Experiments"*
In *Philosophy & Technology*, 1-15. Ablany, Springer Publishing
[44] **Hocking, C**. (2007). *Ludonarrative dissonance in Bioshock.*
Available at: http://clicknothing.typepad.com/click_nothing/2007/10/ludonarrative-d.html Last Visited: 9.04.2014
[45] **Tavinor, G.** (2009). *Bioshock and the Art of Rapture*.
In *Philosophy and Literature,* 33(1), pp. 91-106. Chicago, The Johns Hopkins University Press
[46] **Sicart,M.** (2011) *The Ethics of Computer Games*
Copenhagen, MIT Press

explored in this Chapter.

The worn, decrepit and broken state of objects are great examples of *visual signification* of distress.

The placement of the Little Sister character – a lone child, under a spotlight– a strong visual guide and an easily recognized *semiotic marker* of an object of importance. The unnatural yellow glow of the eyes of the character is an application of the significance of the yellow in *color theory* and game aesthetics as both a marker of attention and threat[47]. All the 3 above work brilliantly as examples of how **Using Presentation and Appearance** (3.1) can be utilized to establish context.

Bioshock also illustrates the principles of **Spatial Design** (3.2) for building context. Bioshock's city of Rapture in its fictional layout allows for constant descents, sudden almost vertical climbs, breathtaking views of its art deco underwater glory and offers a balance between sections of the city that have been almost completely destroyed and more preserved parts. These are used regularly by its level designers not only to ensure a great player experience, but also to reinforce emotions or communicate certain meanings to events which are taking place or about to transpire[48]. Referred to as **Narrative Architecture** in Bioshock this context building technique is often used to reward, foreshadow, deceive or direct attention.[49]

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[47] **El-Nasr, M. S., & Yan, S.** (2006). *Visual attention in 3D video games.*
In *Proceedings of the 2006 ACM SIGCHI international conference on Advances in computer entertainment technology* (p. 22). New York, ACM.
[48] **Rogers,S.**(2009) *"Everything I Learned About Level Design I Learned from Disneyland"*
Available at: http://www.gdcvault.com/play/1305/Everything-I-Learned-About-Level Last Visited: 9.04.2014
[49] **Jenkins, H.** (2004) *"Game Design as Narrative Architecture"*
In *"First Person – New Media as Story, Performance and Game"* pp.118-130 MIT Press

In another example of Spatial Design towards Building Context, the environments, already orchestrated to serve the purposes of Narrative Architecture are filled with hundreds of carefully placed objects, textures and decals arranged in a specific configurations, creating meaning and telling stories of their own:

-Hastily packed baggage trunks, lying abandoned on the floor half opened.

-Bloody stains and dropped protest signs right next to turned over riot fences.

-Worn out art deco posters, glimpsing the glamorous life of the city, covered in bullet holes.

These and many others set-dressing solutions help bring the world to life and provoke affective reflection on the events that took place on a more personal level *(picture 3)*, make a clear showcasing of the use of **Environmental Storytelling.**
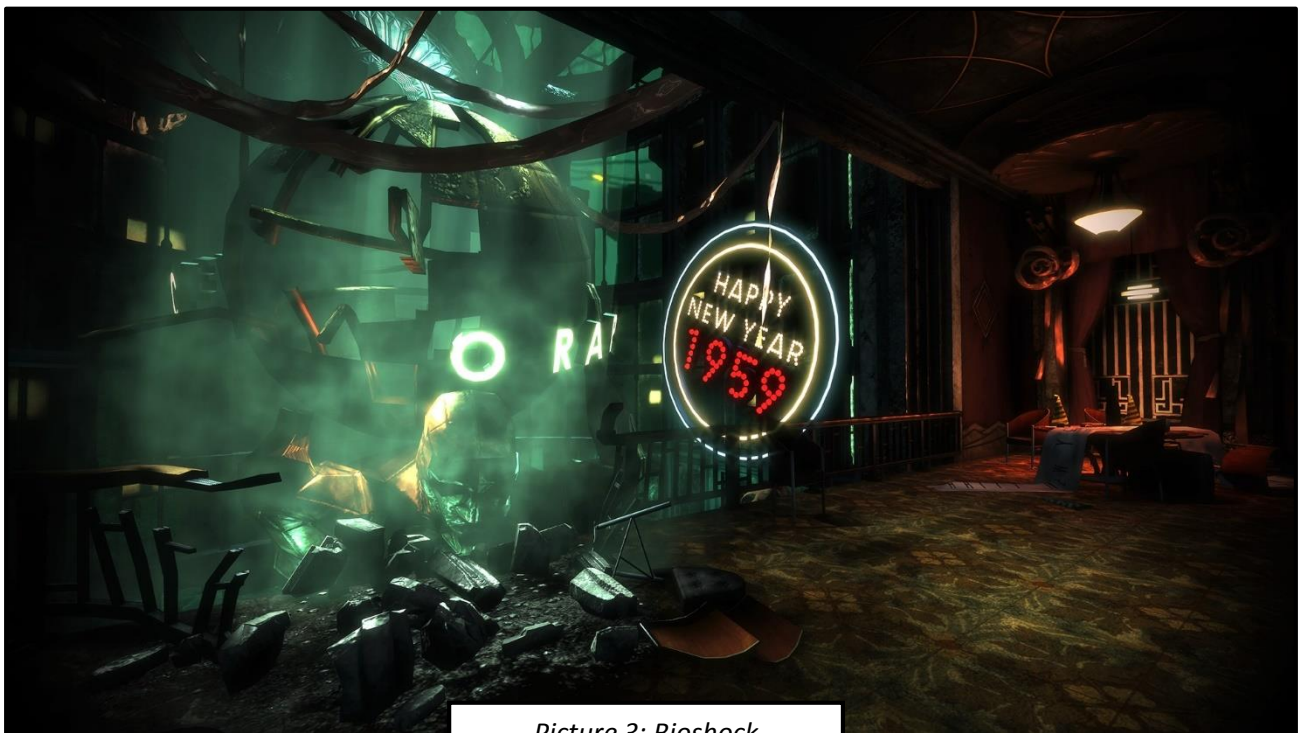
Picture 3: Bioshock

Player emotions are even further appealed to by the use of narrow and arched spaces, darkened corners and almost excessive use of dark spectrum lighting (dark shades of red, blue, purple, and aquamarine green) to transform the appearance of rather vibrant and colorful environments. All this builds up to

player feelings of uncertainty, hostility, alienation and claustrophobia[50]. In that sense Bioshock also demonstrates how **Utilizing Lights and Geometry** can help Build Context.

Finally the Little Sister characters and their presence as a central element of the game world work perfectly on playing on our **Expanded Socio Cultural Background (E.S.C.B)**(4.3) for potential affective value and building context. As family species, it is in our nature to feel compassion for the distress of other members of humankind, let alone children – in this case a crying, starved-looking, little girl, dressed in ragged, old 40's clothes. The player instinctively notes such a character and links them to their personal background and cultural experience, thus marking the Little Sister an entity that needs care and protection. The figure of the Little Sister can additionally be connected to other real world notions such as post-war orphans, abandoned children during the Great Depression or the exploitation of child labor, also capable of producing a strong affective response and triggering critical gameplay.

[50]**Niedenthal,S.** (2008) *"Complicated Shadows : the Aesthetic Significance of Simulated Illumination in Digital Games"* Blekinge Institute of Technology

3.1. Using Presentation and Appearance

The first technique for Building Context in order to establish affect and provoke critical gameplay, is perhaps also the most immediately visible one – Using the presentation and appearance of individual objects, characters or actions. This "grounds" them as not simple utilitarian elements and tools for play, but as entities that have properties of cultural or perhaps even affective significance. Referring to the gameplay moment of Bioshock, used in the previous section, this technique would cover a broad range of practices.

Starting with the appearance of the Little Sister a feeling of distress and even suffering is communicated by the design of her dress model and texture (worn-out, torn, faded color) as well as the skin (unnaturally pale, dirty and scared) . Helping further draw player attention a hint at positive connotations, strong visual opposition is established between the relative cold, dark colors of the environment and the bright colored spotlight, as well as warm pink color of the sister's dress.[51]

In the context of interactions, the camera behavior used to present the choice of Rescue or Harvest is also used to generate affect. Both camera movement (shaking or drifting upwards) and color-coding (fade to greenish-black/fade to white) are used to indicate the negative or positive connotation of Rescue/Harvest choice.

Another combination of conflicting audio-visual markers is used to communicate contradicting archetypes and thus provoke player reflection on the nature of the Little Sister characters. On one hand they are clearly presented as little kids, crying and helpless, that the player needs to overcome challenges to reach, and they possess a resource of value – in that sense the Little Sisters fit Vladimir Propp's model of both a Donor and a Princess[52]. However combined with the uncanny yellow eyes and

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[51] **Bellantoni, P.** (2005*) "If it's purple, someone's gonna die: the power of color in visual storytelling."* Taylor & Francis

[52] **Propp, V.** (2010) *"Morphology of the Folktale"* . University of Texas Press.

processed, distorted voice, markers of The Other[53], they end up more similar to the Campbellian Shapeshifter.[54]

The examples above exemplify how varied the use presentation and appearance is as technique that makes game object or events "relatable" to some sort of affective context, and thus turns their presence or interactions they participate in, into meaningful experiences for the player.

Next I would like to explore 3 particular sets of "tools" for using presentation and appearance:

-Relying on the principles of visual semiotics, symbol encoding and signification **(3.1.1)**

-Color coding **(3.1.2)**

-Using Visual markers and appearance of various archetypes defined by narrative theory **(3.1.1)**

3.1.1. Symbols and Archetypes

The use of **Visual Semiotics and symbolic encoding**, as well as **Using Archetypical markers** in order to generate context for players to experience affect can't be discussed separately as there are too many similarities and interdependent elements between the two approaches.

Symbolical encoding of game objects refers to the use of singular features in the audio-visual presentation of an object to make it a carrier of meaning and symbolism, which exceeds its practical in-game application. "The Heart of a Living Thing" from *Dishonored* (Arkane Studios, 2012) is good example of a
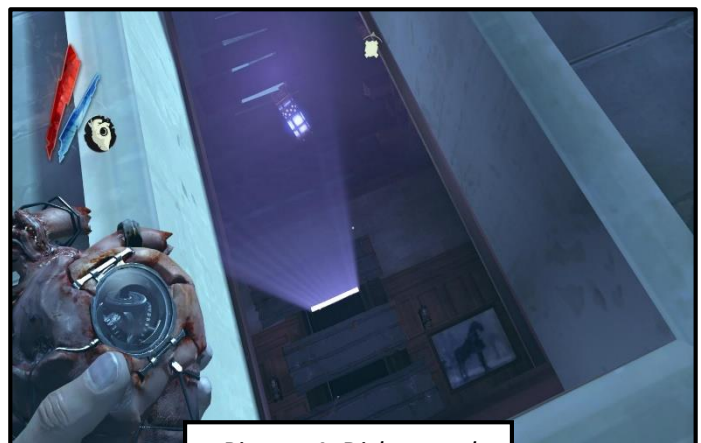
Picture 4: Dishonored

[53] **Todorov, T.** (1975). "*The fantastic: A structural approach to a literary genre*"
Cornell University Press.
[54] **Campbell, J., & Moyers, B**. (2011). "*The power of myth*"
Random House LLC

game object, designed in its visual appearance to communicate features and significance beyond their immediate functionality as part of the game's mechanics. (Pictures 4)

The **Use of Archetypical markers** refers to the use of Symbolical encoding in order to communicate a game object's or character's affiliation and connection to some of the existing media archetypical roles, explored in the works of Vladimir Prop (Prop, 2010) and Joseph Campbell (Campbell, 2011) . In that case the affective value of the game object exceeds the affect generated by its symbolism and individual significance and the emotional significance of the archetype it is attached to is also added.

For example in the *Legacy of Kain* (Crystal Dynamics, 1996-2003) game series – the player characters are presented to The Soul Reaver - a sword which is Symbolically Encoded as an object of power via its size, shape and detailing as a perfectly crafted weapon. This symbolical encoding and ability to generate affect in the player via pure empowerment is further communicated through its audio-visual presentation in combat with the use of post-processing visual effects and particles, as well as it purely objective in-game properties as the most damaging weapon in the game.

At a certain point near the end of the game the Sword is enchased with special powers that make it vital for the story's progress and the final positive outcome, and thus it becomes part of the archetypical "The Hero Seizes The Sword" stage of Campbell's Hero's Journey. At the same time the weapon is also visually augmented with additional light and particle effects, in colors normally
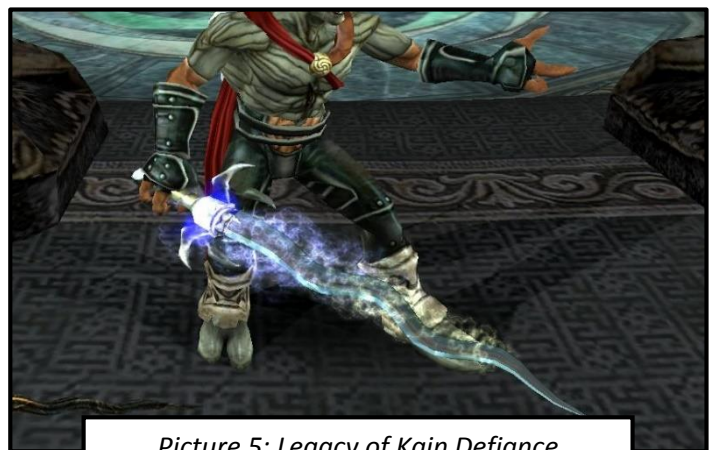
Picture 5: Legacy of Kain Defiance

associated with positive meaning in western culture – celestial blue and white. *(Picture 5)*

At that point the context build around the Soul Reaver via symbolical encoding as an empowering, desirable object in the game, is further augmented by the context that already exists and is carried by its role as part of the Campbellian archetype it now participates in. That status is re-affirmed by the use of

Archetypical Markers - the object's new audio-visual properties.

The use of both symbolical encoding and its integration into larger archetypical structures via additional encoding has been explored in media, already before the creation of digital games. Normally referred to as "tropes",[55] these combinations of symbolic elements with a pre-agreed upon meaning, are used as popular "shorthand" in human culture, media and art. The appearance, presentation or setup of objects and characters that are known to the audience, comes with the expectations for these objects to contain specific properties or enable the happening of certain actions.

The usefulness of tropes to generate emotions and potentially provoke critical reflection in the audience can very easily be explained by things as simple as the inherited comedic value of a banana peel, the tension experienced when a hidden gun is shown to a character in a drama or the sadness associated with a half-open, blood covered locket with a picture inside. Even if not as significant and monolithical as Archetypes, Tropes have been studied extensively and can be traced throughout the entirety of human history and art.[56]

In digital games the appearance of objects, characters or entire sequences of events and their presentation is commonly use to encode both narrative and interactive significance.

Object such as barrels (especially when colored coded red), electronic cards, boxes with a munition mark, and objects bearing the mark of the red cross are immediately understood as carrying specific interactive properties by players. In the context of play experience this can easily be used to produce affect on the mechanical level. The feeling of relief when finding health supplies after especially tough encounter, or re-assurance after the ammo supply of a certain weapon is refilled is perhaps one of the most commonly experienced affective gameplay moments.

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[55] **Fernandez, J. W**. (1991). "*Beyond metaphor: The theory of tropes in anthropology*."
Stanford University Press.

[56] **Fernandez, J. W**. (1986) "*Persuasions and performances: The play of tropes in culture*"
Indiana University Press

However the symbolic encoding of game objects as having affective properties is a lot more apparent when used to contextualize objects narratively and on the semiotic layer.

As an example a common environmental trope in horror or adventure games, used to create excitement, fear or tension are wooden, steel or stone surfaces that the player has to traverse, which make pronounced creaky/crumbly sounds and are textured to appear aged, broken or consisting of broken parts, immediately creating feelings of un-ease and expectation of the point where they might give in. (*Pictures 6-9*)
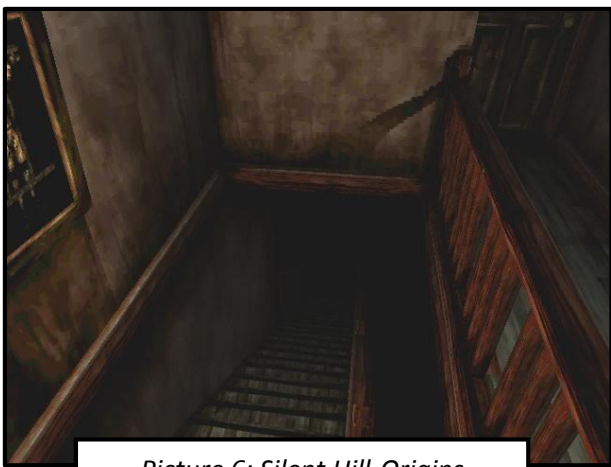
Picture 6: Silent Hill-Origins
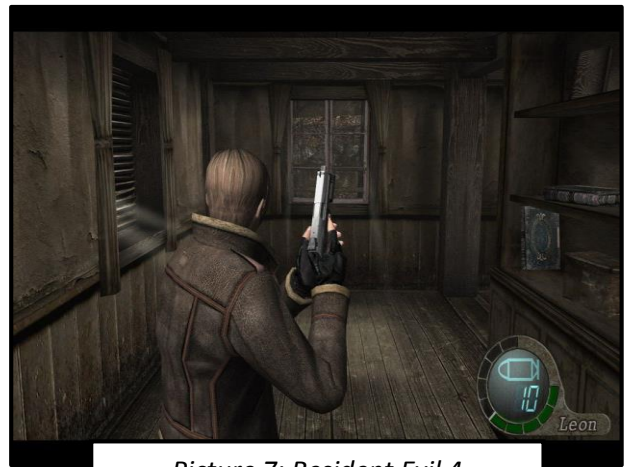
Picture 7: Resident Evil 4

Picture 8: Amnesia

Picture 9: Uncharted 2

When looking at character design, the use visual presentation and symbolic encoding of character appearance in digital games is largely similar to what is already done in other media. [57] However in some cases transformations in the visual presentation of characters have been used to create affect on the basis a ludo-narrative link between object appearances and gameplay properties. The steady transition of the player character's appearance in the *Diablo Series* (Activision Blizzard, 1996-Current) based on the equipment they are wearing, serves

Picture 10: Diablo 3

to indicate the characters progression and communicate empowerment to the player. The image included here illustrates that exact transition for the Barbarian character class in *Diablo 3* (*Picture 10*)

In a reverse example the state of Batman's appearance throughout the course *Arkham City* (Rocksteady, 2012) matches with his gradual exhaustion and slowly weakened state, after a night full of continuous confrontations with his enemies. Combined with the increasing difficulty of enemy encounters, as the player progresses and actual weakening of the character's ability for a segment of the game, the visual encoding of the costume as a signifier of Batman's state, helps enhance player's feeling of vulnerability.

Picture 10: Batman Arkham City

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[57] Even if not the result of academic research the TVTropes digital database at the various tropes utilized in popular culture: http://tvtropes.org/pmwiki/pmwiki.php/Main/HomePage

3.1.2. Color Coding

Moving on to **_Color Coding_**, it should be noted that even though the use of color on its own probably one of the most direct and common use of Archetypical markers in human culture (Bellantoni, 2005, p.217) the use of colors in order to affect the player on their own right is simply too significant to not be addressed separately. Still, color coding as an approach to building context for game objects in order to ensure their affective properties is rather straight forward. The signifying properties of color and tonal shifts in media are quite well know and explored both in graphic design[58] as well as their practical application in game design.[59]

Color opposition is especially common in the visual presentation of both game objects and characters. The Red and Blue duality as well as the Orange and Blue are perhaps the most well-known of those and are commonly used to signify differences between different resources(Picture 11), friendly or enemy game agents, opposing factions(_Picture 12_) or characters_(Picture 13)._

Picture 11: Health and Mana

Picture 12: Soviets and Allies

Picture 13: Character Opositions

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[58] **Mollica,P.** (2013) _"Color Theory: An Essential Guide to Color-from Basic Principles to Practical Applications"_ Irvine, Walter Forster Publishing

[59] **Fiorito,J. & Smith, C.** (2000)"_Lessons in Color Theory for Spyro the Dragon"_
Available at: http://www.gamasutra.com/view/feature/131581/lessons_in_color_theory_for_spyro_.php?print=1

Strong Color coding is also widely used in the design of core palettes for characters and objects of symbolic significance to the character/player. When combined with the player's constant exposure to those and other emotionally affective factors (such as the events occurring in the storyline) the presence of the colors associated with them can become affective on its own terms.

For example – In *Prince of Persia: Warrior Within* (Ubisoft Montreal, 2004) the main antagonist – Dahaka is depicted with core colors including black and a specific dusty shade of brown. In sequences including the presence or arrival of Dahaka these colors are applied as a camera filter and in various post-processing effects to the screen. This is enough to play on player's affect and provoke a re-evaluation of the gameplay scenario: As Dahaka is an invulnerable enemy, as soon as and the players are informed of his immanent arrival, their concerns become focused on finding a path to flee and worry over exactly when will the attack come. *(Picture 14)*
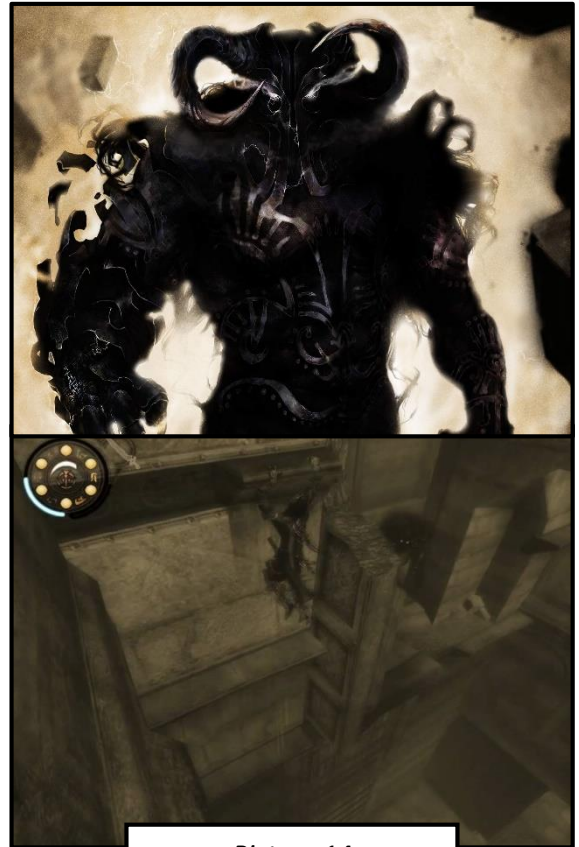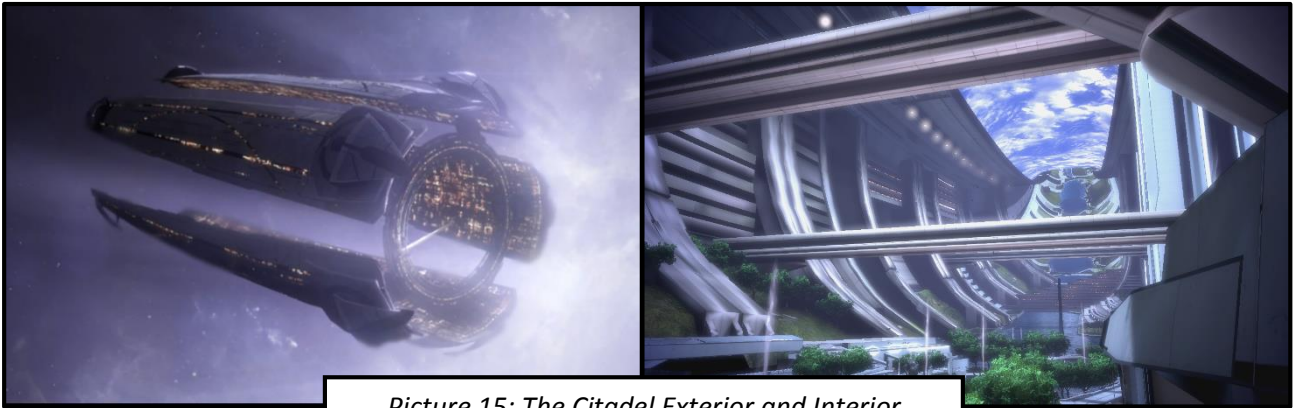

Picture 14

The same type of strong color coding is utilized in establishing the identities of player protagonists – *Assassin's Creed* characters are easily identified by the dominant white and sparing use of red accents, as well as *Halo*'s (Bungie Studio, 2001-2010) Master Chief's olive green armor with a single golden accent of his helmet's visor. It is easy for players to identify and experience affect at the very presence of these colors as representing an event relevant to the character or they care for.

The *Mass Effect Series*(Bioware, 2007-2012) utilizes color coding perfectly in that regard by using the color opposition of red and blue to encode characters, objects, spaces and situation as being relevant to its Paragon(blue) and Renegade(red) morality spectrum and the different game elements affiliated with

it. One example of that would be two of the game's main hub areas – The Citadel and Omega space station.

Picture 15: The Citadel Exterior and Interior

Being the seat of galactic power in the Mass Effect sci-fi universe, the Citadel*(Picture 15)* is the center of the democratic, law-abiding community of sentient races – In the Citadel all the laws and bureaucratic decisions that regulate the well-being of the galaxy are made based on an ideology of equality, compromise and mutual interest. As such The Citadel is a symbol of the values Paragon Characters are associated with.

Picture 16: Omega Exterior and Interior
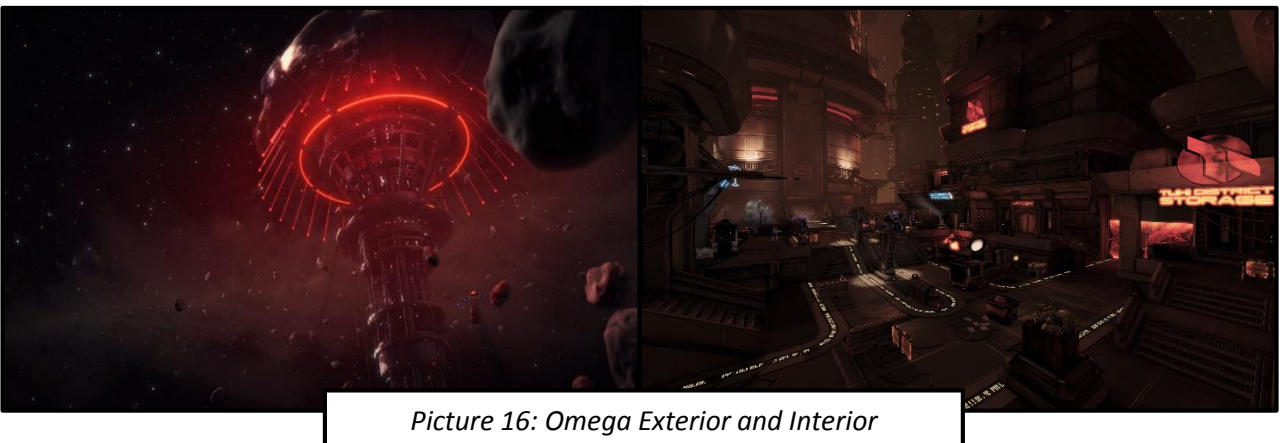
The Omega station on the other hand is a private space station in which various mercenaries, weapon smugglers, slave traders and criminal cartels set their operations. Prospering and acquiring power in Omega is the result of individual strength and cunning, and dependent on an individual's willingness to stand for their own interest no matter what. This is the exact modus operandi of Renegade characters. *(Picture 16)*

Sadly it should also be noted that another popular use of strong character color coding for affect is related to the problematic depiction of female characters – Shades of peach, rose, scarlet or cream are almost exclusively used in relation to females or as markers of feminization[60].

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[60] An exploration of the issue of color coding of the effeminate, as well as current controversies on female character depiction in digital games is very nicely presented by game and movie critic Bob Chipman in:
Chipman,B. (2014) *"Pink is not the Problem"*
Available at: http://www.escapistmagazine.com/videos/view/the-big-picture/8530-Pink-Is-Not-The-Problem

3.2. Spatial Design

Once again referring to Aki Järvinen's theory of game elements the Environment – the virtual or physical space, or even abstract set-up in which gameplay takes place is a *"fundamental aspect, unique for each game"*(Järvinen, 2009, p.66) But it is exactly dedicated game space that is one of the few elements that the player is constantly exposed to, no matter their interactive agency or choice.

There are many aspects to game space, ranging from the abstract set-up of game elements and rules, the actual digital playfield consisting of object geometry, lights and textures or the ecosystem of how the individual elements affect and interact with one other ,even without the player's participation(or even presence).

However, no matter what exactly the game space is, gameplay and player agency is always made manifest in space – rules and mechanics and the player's use of those can only be executed and made sense of in defined spatial/environmental constructs((Järvinen, 2009, p.67).

As a result game space and designing it to serve specific game related functions, make Spatial Design essential part of Building context for the player experience and tapping into its affective potential.

It is hard to discuss Spatial Design – the design of complex digital game environments and their setup and not actually be discussing level design and its role and influence on player behavior[61] . Level geometry, area layout, points of view, points of interest, presence of characters or resources - All these influence player behavior and help the player establish tactics, evaluate the interactive affordances of a situation and courses of action and movement. [62]

Positioning the player at an overview point that gives them clear line of sight to enemies, gives the players tactical advantage and is likely to result in a more straight forward aggressive approach. At the

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[61] **Drachen, A., & Canossa, A.** (2011). *"Evaluating motion: Spatial user behaviour in virtual environments."*
n *International Journal of Arts and Technology,* 4(3), 294-314.
[62] **McMillan,L. & Azar, N**. (2013) *"The Metrics of Space: Molecular Level Design"*
Available at: http://www.gamasutra.com/view/feature/184783/the_metrics_of_space_molecule_.php

same time filling an environment with obstacles and obstructions that prevent both the player and the enemy agents from seeing and knowing each other's positions is likely to result in a more cautious, slower paced approach to playing. [63]

In a similar manner these same elements of designing game spaces can be used to influence not only player behavior, but also the overall emotional affect experienced by the player by building up the context of the various game objects and gameplay activities the player is exposed to.
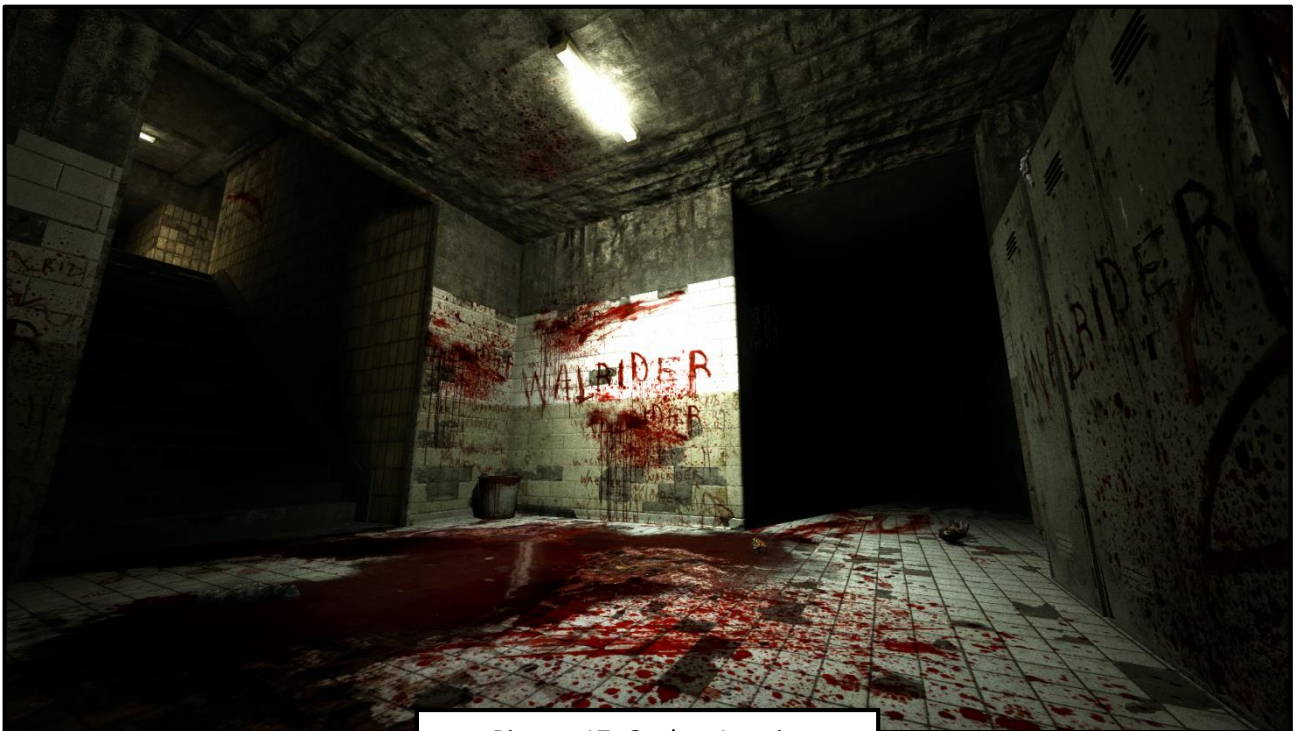
Picture 17: Outlast Interior

Bloody track marks on the floor leading towards a darkened, claustrophobic hallway that the player needs to cross*(Picture 17)* is an example of Spatial design just as likely to affect the players emotions and behavior as is the presence of cover near the middle of a combat arena is likely to affect their behavior. So what exactly are the techniques we can use to Build Context and create exposure to gameplay situations that are likely to provoke critical gameplay via spatial design?

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[63] **Hullet,K.** (2010) *"The Science of Level Design"*
University of California Press

3.2 1.Narrative Architecture

The first technique in Spatial Design for Building Context, that I would like to explored would be "Narrative Architecture" .The term "Narrative architecture" refers to the use of level geometry, the structure of the virtual environments or the specific way the player is required to move through them, as means of communicating and enhancing a certain storytelling aspect of the experience. These can include, but are not limited to:

- The height and width of individual rooms and spaces.

 - The positioning and relationships between various areas, objectives or characters.

- The angles for approach and movement of the player in relation to in-game entities or space itself.

As a term itself "Narrative architecture" in the context of digital games was first coined by Henri Jenkins in his essay *"Game Design as Narrative architecture"* (Jenkins,2004) and further explored by Michel Nitsche in his *"Video Game Space: Image Play and Structure in 3D Worlds"*(Nitsche, 2008). Since then the term has slowly become more widely used within the development community itself, especially amongst writers and designers. [64] Even if not referred to that often by its name amongst designers, this technique is a popular means to enhance certain narrative aspect of the game experience in the gameplay itself, without the need for limiting interactions or resorting to cut-scenes – It is often used to re-enforce an idea, present events of story importance, communicate a character's experience or facilitate the emergence of emotions. Thus it organically becomes a powerful tool for Building Context and generating player affect.

One of the most clear and critically acclaimed examples of using Narrative architecture to create critical gameplay would be *Journey* (thatgamecompany, 2012). It is also one of the few titles which the developers themselves have documented and elaborated o at great length their intentions and

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[64]**Lamerchand,R.** (2012) *"Attention, Not Immersion: Making Your Games Better with Psychology and Playtesting, the Uncharted Way"* Available at: http://gdcvault.com/play/1015464/Attention-Not-Immersion-Making-Your

approaches to generate affect and critical gameplay.[65]
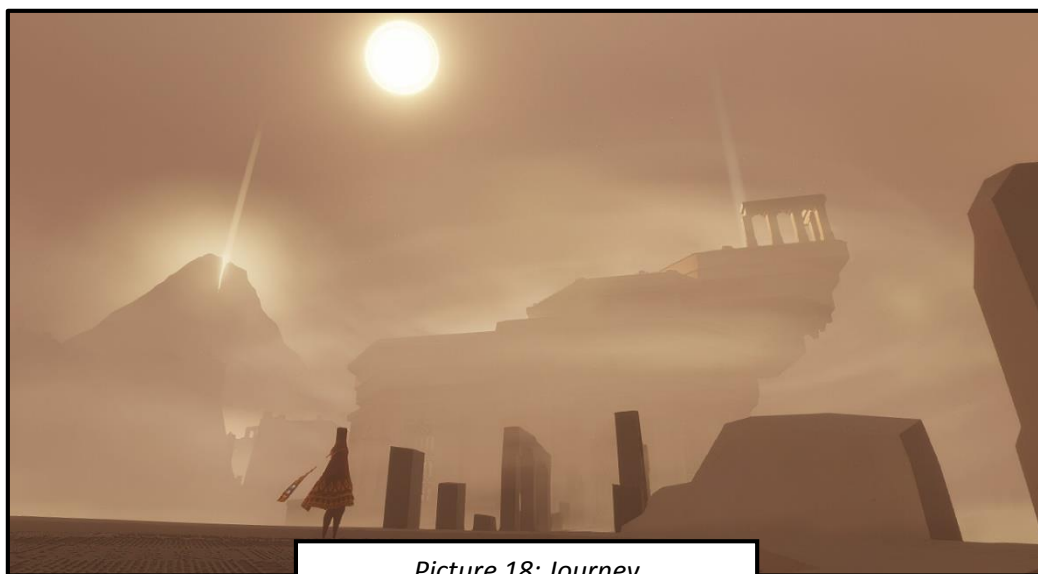
Picture 18: Journey

The game uses the construction of game environments to reinforce narrative meaning and guide player emotions to certain critical states – moving through fascination to contemplation and eventual catharsis. (Chen, 2013). The spatial design of the individual "segments", their vertical structure, the events and vistas they offer the player, as well as the core direction of player movement - All these, and even as well the overall curve of player movement through the entire gameplay of *Journey*, are applications of Narrative Architecture designed to mimic the emotional curve of the Aristotelian dramatic journey towards catharsis. [66]

In that sense the game is intentionally designed for the player to quite literary experiences the follies, downfalls and finally cathartic ascension towards closure associated with classical drama.

It should also be noted that in *Journey* another Spatial Design technique - Playing with Lights, Colors and Shadows (3.2.3) - is used in a similar manner to further reinforce the implications of its Narrative Architecture and the emotional Journey of players in each individual segment. Combined with other affective techniques – especially the unique approach to player Consent in its mechanics of co-

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[65] **Chen, J. (**2013) *"Designing Journey"*
Available at: http://www.gdcvault.com/play/1017700/Designing
[66] **Mateas, M.** (2001). *"A preliminary poetics for interactive drama and games"*
In *Digital Creativity,* 12(3), 140-152.

operative gameplay (Chapter 6) *Journey* makes a brilliant example not only of Narrative Architecture, but the use of design towards Critical Gameplay in general.

Journey is great example of Narrative Architecture and its use to Build Context towards affect through the entirety of gameplay – a lining of sorts that guides the player towards a certain critical state. However the level design of survival horror games, such as *Silent Hill 2*(Team Silent, 2001) gives us an example of a more direct and short term application of Narrative Architecture.

Similarly to *Journey*, *Silent Hill 2* establishes a long-term spatial design pattern based on Narrative Architecture to build context and communicate an emotional journey .In this case instead of being based on Aristotelian Drama and its beats, the Narrative Architecture is based on another classical dramatic pattern – The Orphic Legend in which a hero descents into an external space (Underworld) in order to rescue a beloved, only to ultimately fail in his quest.

In Silent Hill 2 retelling of Orpheus's quest the player protagonist – James Sunderland goes to the haunted town of Silent Hill to search for his dead wife Maria, who seems to still be alive and waiting in the town. Silent Hill 2 communicates the "descent into the Underworld" by having the character constantly exploring spaces that gradually have deeper and deeper underground sections, as well as continually descend.*(Picture 19)*
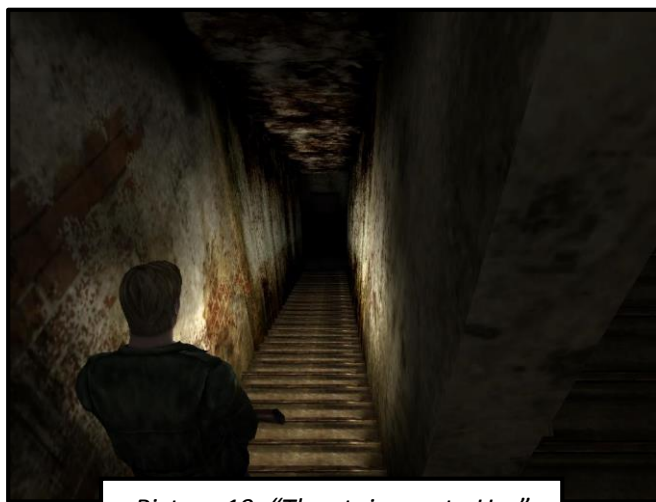
Picture 19: "The staircase to Her"

From an apartment Building, to a hospital/morgue to a completely underground prison and a surreal Otherworld. This is followed by a final "ascension" back to the surface via a hotel in which the game's final dramatic reveals take place.

On the moment to moment player experience level however Silent Hill also makes use of Narrative Architecture - the series are notorious for their surreal and at times even non-Euclidian level design and approach to taking every day spaces such as schools and hospitals(a "trademark environment" for the series) and turning them into labyrinthine tests of players ability to navigate and deal with frustration and provoke negative emotions.

It is exactly the intentional design of Silent Hill 2's environments as means of provoking frustration, confusion and even a sense of desperation in the player, which almost creates a synergy between the emotions experienced by players and the actual emotions of the character they control.

Picture 20: "The Labyrinth"

A prime example of that is the gameplay which follows after James – the game's protagonist - experiences a complete breakdown of reality after seeing the death of Maria – the lead female character and her unexplained reappearance moments later without recollection of her own death. This event is followed by the players having to navigate a surreal underground maze as the character narrates his attempts at making sense and emotionally dealing with the ordeal, without any clear landmarks or guidelines to how to navigate it.*(Picture 20)*

In this case Narrative Architecture is directly applied to the design of a level in order to communicate a characters distress and confusion and reinforce this emotion as also relevant to the player via their gameplay experience - thus making it easier to provoke critical reflection on the situation of the character.

Narrative Architecture can also be applied to individual segments of gameplay, once again to help reinforce their emotional value to players and establish some sort of link between player emotions and the emotions of the character they are in control of. *Call of Duty: Black Ops 2* (Treyarch, 2012) utilizes this approach to allow players to experience in gameplay a characters pain and anger as they also turn into a rage that drives them.

In the beginning segments of a mission later in the game's campaign the player is put in control of the main antagonist of the game – Raul Menendez , as they experience a traumatic moment of his past – his "breaking point" so to speak. After events, extremely painful for the character unfold, the players are given control. They start the level placed on a top of a slope that they need to make their way down from. There is heavy enemy opposition and the player is armed only with a melee weapon – a machete. *(Picture 21)*

For this segment they are also given increased health and speed, and a perfect level position for a relentless straight-forward rush – as the game camera processes everything through a red mist-like filter players take the only course of action seemingly available to them – they rush down and literary cleave their way through the enemies. This gives the players an experience of both descent into madness and violence, but also a feeling of extreme empowerment that comes from dominating over the opposition with ease. In this case Narrative Architecture and the

Picture 21: "Menendez's Rage"

layout of the most core level geometry itself are used to allow the immediate generation of affect and give the players the chance of intimate understanding and experience of the characters pain and state of mind.

Picture 21: Braid

Another example of this direct application of Narrative Architecture is *Braid.*(Blow,J. 2009) In the final level of the game the player has to traverse level with Tim(the games protagonist), using the at this point already mastered and perceived as trivial gameplay mechanic of time reversal. As the player progresses through the level, its Narrative Architecture is seemingly structured to allow players to experience how "The Princes" helps Tim. She is seemingly opening paths for him from the upper section of the level, while trying to escape from an armored knight chasing her. The Narrative Architecture of the level builds a context in which the player experiences a pleasant excitement as they both get Tim closer to his lover and she helps them along the way. As the player reaches the turning point they get to experience the level, its Narrative Architecture and intent and symbolism in reverse, thanks to the way the games time-turning mechanic works.

Johnathan Blow uses this chance and utilizes the same Narrative Architecture and its affective principles in reverse – Instead of opening paths for Tim, The princes is now shutting them down - Instead of helping she is creating obstacles – Instead of running with the player, she is running away. The Narrative Architecture of this segment, together with the smart application of the game's rules(Sicard, 2013, pp.127-131) are the sole tools used for turning the player emotional experience, from one end of the emotional spectrum to its complete opposite, making Braid an achievement in critical gameplay design.

Lastly Narrative Architecture for emotional affect can also be applied to the principle of designing Landmarks[67] in game environments and levels. The Summit of the Mountain in Journey and Council Chambers in Mass Effect would be examples of landmarks used for the purpose of Narrative Architecture. By being places higher and presented to the player as locations of significance and importance they become desirable and as such moving towards them, catching glimpses of them and generally making progress towards such landmarks and finally reaching them can cause a critical gameplay experience to emerge.

3.2.2. Environmental Storytelling

Environmental storytelling is another approach to building context and generating affect for players, known and practiced in game design.[68] In most simple and straight forward terms in Environmental Storytelling environmental artists, set-dressers and level designers use the composition of interactive game objects or static props as means of telling a story to the players and provoking their imagination as to what events took place. The objects are arranged in certain ways that establish relationships between them and hint at scenarios the players can easily recognize from their Expanded Socio Cultural Background(3.3) or other popular media they have

Picture 22: Urban Decay in Deus Ex

[67] **Lynch, K.**(1960) *"The Image of the City"*
Cambridge, MIT Press
[68]**Smith, H. & Worch,M.** (2010) *"What happened here ? Enviromental Storytelling"*
Available at: http://www.gdcvault.com/play/1012647/What-Happened-Here-Environmental Last Visited: 09.04.2014

come in contact with. The arrangement's role as an Environmental Storytelling tool can be further hinted to the player via the use lighting, various post processing effects and controlling the angle from which the player might approach these.

Environmental storytelling gives digital game spaces and levels a layer of "lived in"-ness. It allows the player to feel as if they were dropped in a game world "in media res" – to feel that it was actually living on its own and the player presence just happened in one particular moment of the existence of a game world that lives on its own and thus establish empathy towards the world and its characters resulting in critical gameplay emerging. *(Picture 22)*

There are numerous examples of environmental storytelling in almost every contemporary digital game. Almost the entire backstory of *Portal*(Valve, 2007) and the events that took place in the Aperture Science Facilities prior to the beginning of the game are communicated via the placement of objects telling of the sudden, most likely unexpected disappearance of the researchers – broken glass, turned over chairs and tables, documents left lying around and empty glasses tell of a place that was quickly emptied. *(Picture 23)*
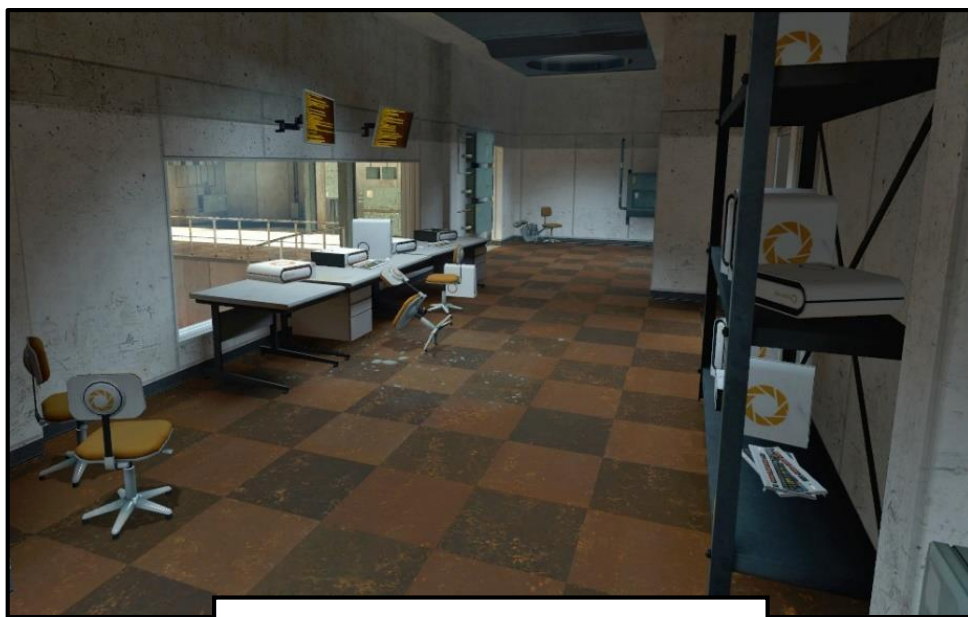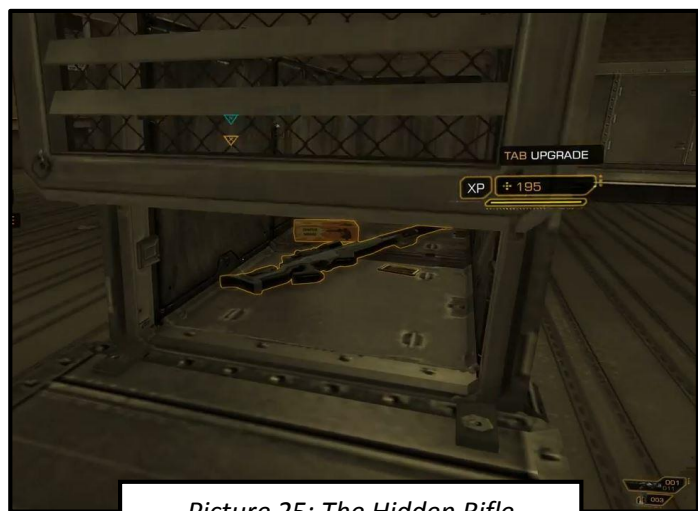

Picture 23: Empty Aperture

Also in *Portal* the entire existence of the character Ratman – the last surviving staff member - and his slow descent into madness from the events prior to Portal are communicated via Environmental Storytelling. Hand-painted murals in the more secluded areas of the game, hideouts filled with increasingly senile graffiti, makeshift fires and rotten food all help the players experience the story of a lonely, sympathetic man slowly losing his mind.*(Picture 24)*

Picture 24: Ratman's Graffiti

Deus Ex(Ion Storm,1999) and its sequel – *Human Revolution* (Eidos Montreal,2011) are another set of titles known not only for their use of environmental storytelling in order to affect players and provoke their critical evaluation, but also for using the technique as means of personal expression for the designers.[69]

The environments of Deus Ex are literary build from bits of interconnecting Environmental Narration: Pieces of broken glass next to a tipped over wine bottle and blood stains on the floor next to them. Empty ammo cartages lying on the ground next to a chalk outline on the street. An empty basketball field with grenades hidden

Picture 25: The Hidden Rifle

behind cardboard boxes nearby.   A sniper rifle hidden in an air duct with an instruction to cause as much chaos as possible during a civil riot. *(Picture 25)* A secret room in an apartment filled with medical

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[69] **Sheffield, B.** (2007) *"The Subversive Game: Interview with Harvey Smith"*
Available at: http://www.gamasutra.com/view/feature/129975/the_subversion_game_an_interview_.php?print=1

equipment - a surgical bed covered in blood stains with empty packages of painkillers and mechanical human augmentation parts, lying in the corners of the room. All the examples above make the Deus Ex universe feel like a dark, ruined world, filled with personal tragedy, danger and conspiracy.

There are games that go even further then Deus Ex however – Titles such as *Gone Home* (The Fulbright Company, 2013) or *Dear Esther* (The Chinese Room, 2012) show the potential of Environmental Storytelling to move the whole narrative. In these cases Environmental Storytelling is the dominant means through which the game's affective and critical gameplay potential are generated. Building their entire player experience around Environmental Narration, these games offer nothing more to players than the chance to explore virtual environments, filled to the brim with objects and composition, telling a story and attempting to spark player's imagination. *(Pictures 26 & 27).*

Picture 26: Dear Esther

Picture 27: Gone Home

3.2.3. Lights, Shadows, Colors

The use of light, the prominence of shadows and the dominant color themes of game environments are the last Spatial Design technique for Building Context I would like to present.

On an almost primordial level the coloring and light saturation of areas can provoke variety of emotions and associations. The player experience of either Comfort or Hostility in a game are just a light hue away, and as such switching the light models of environments to utilize their ability to generate affect is quite commonly used(Niedenthal, 2009, pp.67-89). *Mass Effect* was already given earlier when talking about color-coding its environments and even certain scenes to represent a specific emotion or a worldview via it's Paragon/Renegade color duality.

Two other titles come in mind when referring to playing on dualities and utilizing strong color code in Spatial Design - *The Saboteur* (Pandemic Studios, 2009) and *Okami* (Clover Studios, 2006). Both these titles designate events of emotional weight or areas with a nature capable of motivating critical thought, via their use of colors, as well as light and shadow.*(Pictures 28 & 29)*

Picture 28: The Saboteur

Picture 29: The Saboteur

Completely different as art styles and themes, both these games oppose the vibrancy of bright colorful areas in control of the protagonists with darker and duller colors for areas under the control of negative forces (Nazis Forces or the demon Orochi).

It is also that in both of these titles great effort is placed on showing the act of transformation of certain "liberated" areas. Filling the world with color and restoring its bright state serves as a visual representation of the cleansing and purification of the world. Thus the properties of the game space are being used once again as a vehicle for potential critical reflection of the player on the nature of their characters actions and influence over the environment.

Finally, when it comes to the use of light, horror themed games, such as *Alone in The Dark: New Nightmare* (Darkworks,2001) , *Outlast*(Red Barrels, 2014), *Amnesia* or *Alan Wake* (Remedy Entertainment, 2010) would be the "poster children" examples for games which utilize lights as means of generating affect and using it to direct player emotions. *(Pictures 30, 31 & 32)*

Picture 30: Alone in The Dark

Picture 31: Alan Wake

Picture 32: Amnesia – The Dark Descent

3.3. Building Context: Using The Expanded Socio Cultural Background (E.S.C.B)

"Games do not exist in vacuum" is a line often heard in classes of game design or game development. When Building Context, accounting for the expanding socio-cultural context (or E.S.C.B) in which the game is created, played and evaluated by the audiences, is also an important and potentially powerful tool for generating affect, that designers need to be mindful of.

Players, critics and developers themselves, as participants of their respective communities are exposed to countless problems, issues, events and discussions that they likely have a personal stance on and experience some sort of emotion towards. When thinking of generating player affect via building context, game designers could utilize or at the very least should be mindful of the various external elements that influence how the game is perceived by the players.

For example: In the context of U.S player audiences and critics, it would be hard to evaluate the experience or emotional impact the story of "Gone Home" offers to players, without also being aware of the larger context of ongoing debates about L.G.B.T. rights and legal status of relationships[70] , the status of L.G.B.T. Individuals in the army[71] and the acceptance of alternative sexual orientation in American society in general.

Gone Home's storyline deals with these topics on the personal level of a characters story and at the same time was released in August 2013. The period of its release matched closely with a period of active discussion of these issues in the US, as the legislation of same-sex civil unions were being passed in the states of California(August 1st. 2013) and New Jersey(October 1st. 2013). Thus as a media artifact, Gone Home's player experience and its affective potential are presented against the broader background of social discussions and problems already familiar to players. This would be exactly a case

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[70] **Corvino, J., & Gallagher, M.** (2012) "*Debating same-sex marriage.*"
Oxford University Press.
[71] **Oswald, R. F., & Sternberg, M. M.** (2014). "*Lesbian, Gay, and Bisexual Military Families*"
In "*Military Deployment and its Consequences for Families*" (pp. 133-147) New York, Springer

of designing for critical gameplay via building context, using the expanded socio-cultural background in which the game experience and its players exist.

By using the E.S.C.B for amplification and easier contextualization of the game experience, the players could relate the events and characters explored in Gone Home's story and experience them as having more weight or affective relevance, as they connect to the real world event of related nature.

Gone Home utilized its environmental storytelling and narrative architecture brilliantly to provoke critical gameplay and the use of context is given weight even further by its E.S.C.B relevance.

It is a particularly good example of how E.S.C.B. could be used to Build Context in order to generate critical gameplay, as it also managed to be relevant to the broader context of games and game culture in another way. Shortly after its release in order to express their disproval of statements made by Mike Krahulik – one of the founders of the Penny Arcade Foundation, the Fulbright Company decided to not participate in the Penny Arcade expo, vocally expressing their disproval of Krahulik's behavior.[72] Thus Gone Home became relevant on a "second level" of E.S.C.B contextualization - this time provoking critical player thought on the issues of inclusiveness and gender intolerance within the gaming community itself.

Gone Home, intentionally or not expanded its spiral of engagement[73] way beyond the scope of the title and turned into a cultural lynch pin of the maturing of digital games as a media. It shows exactly how intricately games are connected to the context they are perceived and presented in and how key Building Context is to their affective potential and for generating critical gameplay. In the case of Gone Home building context by using E.S.C.B. of the audiences happens on the level of commentary on current social issues.

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[72] **The Fulbright Company** (2013) *"Why we are not showing Gone Home at PAX"*
http://thefullbrightcompany.com/2013/06/21/why-we-are-not-showing-gone-home-at-pax/
[73] **Arsenault, D., & Perron, B.** (2009*) "In the frame of the magic cycle: The circle (s) of gameplay."*
In *"The video game theory reader 2"*(109-131). Routledge.

SpecOps- The Line (Yager Development, 2012) would be on the other hand an example of how cultural heritage aspect of our E.S.C.B can be used to the same effect. Serving as a commentary on both western interventionism, the justification of violence in war and colonial mentality, it already uses E.S.C.B to build context for its audiences and uses their knowledge of western history and culture to provoke critical gameplay agency.

At the same time it references Joseph Conrad's *Heart of Darkness*[74], both in character names and in plot structure, to foreshadow and further clarify the exact aspect of E.S.C.B. of western players it would like to utilize – in particular the notions of colonial guilt. By building the context of the player experience in SpecOps, as linked to one of the more significant achievements of western literature, the game can more easily be legitimized in the eyes of the audience or the critics as a cultural artifact, worthy of critical reflection – and thus once again – help provoke critical gameplay agency.

There are plenty of other examples that can be given -titles such as *Depression Quest*(Zoe Qunn, 2013), *Dys4ria* (Anna Anthropy,2012), *The Baron*(Victor Gijsbers,2007) or *C.T.S*(Merritt Kopas,2013) achieve the most of their affective potential when the players are familiar with the issues of our culture or particular events that they comment on and represent.

The notion of using E.S.C.B to expand to influence the player experience is not new. Even if we limit ourselves solely to digital games and discard Huizinga's broader cultural significance of play. According to Dominic Arsenault player's investment and emotional engagement with a game, does not begin with the act of playing – The so called "Cycle of Engagement" as Arsenault defines it, includes the larger context within which the player is already engaged before they start playing and experiencing the game. (Arsenault, 2009.p.116) Even if it seems like the most abstract of all the approaches to Building Context, understanding the Broader Socio Cultural Background could arguably be one the most affect-generating of the approaches suggested.

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[74] **Conrad, J.** (1923). *"Heart of darkness"*.
Brighthouse.

If Presentation and Appearance(3.1) and Spatial Design (3.2) contextualize the game experience by "grounding" the game mechanics and player activities to a fictional world that we can be affected by, using the E.S.C.B helps ground the player experience directly the real world and its phenomena, which are likely to hold great personal significance to players.

CHAPTER 4. PRESENTING CONSEQUENCES

In Chapter 3 I explored the techniques for Building Context as means of generating critical gameplay and emotional affect. I tried to establish Building Context as means of making the world, its events and characters matter to the player, so that they experience a sense of significance behind the game world – things they can relate to, get invested in and result in the emergence of critical gameplay.

Presenting Consequences is the next technique for facilitating critical gameplay I would like to explore.

The name of this technique is quite self-explanatory of its nature – *Designing changes, elements, systems, segments of gameplay or events that present to the players the consequences of actions they have taken or choices they have made.*

Explaining the notion of "consequences of player actions" might feel like a slight redundancy, but just for the sake of clarity here "consequences" will be defined as events or changes to the state of the game resulting from player activities – choices, accumulative behaviors or required actions (Chapter 5)

By necessity in order to Use Consequences as a technique for critical gameplay the design needs to build up from what is already done in order to Building Context. Only after a game world has been "grounded" - established as having weight beyond its gameplay functionality – it would make sense to design segments of it and methods that establish the player's presence and interactions as having meaning and influence over the game, its world and transforming it's various elements. Communicating the significance of player influence and making said influence feel as having actual impact is exactly how consequences can be used to generate affect in the players and provoke them towards critical thinking.

When consequences for player actions are designed, either for gameplay or narrative purposes, these consequences must naturally have a subject – an in-game element that is affected by them. These could be the characters, environments, various in-game objects and systems, the narrative or the players themselves – all of these can be subjects of consequence and used to communicate and execute consequences for the player to experience weight behind their actions.

The changes and transformations occurring as result of the consequences of player actions can fall in 3 main categories. **Aesthetic changes** directly influence appearances and presentation of game elements. **Narrative changes** are influencing the development of a story elements within the game such as events or dialogue. **Mechanics-based changes** are changes influencing player's skills, various character statistics or changing their interactive ability on system level. Used as a technique for generating affect, Presenting Consequences of player actions can obviously be any also any combination of these.

In the next pages I will be exploring the variety of ways in which consequences can be presented and provide examples of how these different approaches to Presenting Consequences can help provoke emotional affect and a concern in the player over their actions that goes beyond simple play value. My focus will be on three pairs of approaches to the designating consequences relevant to the generation of player emotion and facilitation of critical gameplay:

-Direct and Indirect Consequences

Do the consequences affect the player character(s) directly or influence other elements of the game and its world?

-Immediate and Delayed Consequences

Does the players experience the consequences of their actions or choices immediately or with a delay?

-Chronological and Parachronological Consequences

Is the presentation used to show consequences of actions taken by the player character during the course of the game or before actualy beginning of the game?

4.1. Direct and Indirect Consequences

By **Direct Consequences** I would refer to the types of transformations and changes that are directly (obviously…) and clearly resulting from the player's choice, but also affect the player characters or avatar directly. Direct Consequences are also events triggered by the players, which address and influence the player character both as an interactive agent and a character in a story.

Indirect Consequences on the other hand do not have such a clear link to the player actions and do not change the player character's state in the game world. These are consequences that "by the power of circumstances" are linked to the actions the player has taken, but the player could not have known about and instead a result in transformations of other characters, the game world or the ecosystem of the game. It is important to note that while Indirect Consequences are likely to have gameplay or narrative impact on the player character, that impact is not always communicated as directly resulting from the player actions.

A good, even if a bit overused, example of a digital game, utilizing both direct and indirect consequences for critical gameplay would be *The Walking Dead* (Telltale Games, 2012) game series, which by using exactly the affective power of consequences has gained mass critical praise[75] and become one of the most important titles in current design and critical discussions on choice[76], consequence[77] and game ethics (Sicard, 2013, p.13).

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[75] A Metacritic avarage of 92:
At: http://www.metacritic.com/game/xbox-360/the-walking-dead-a-telltale-games-series
[76] **Edge Magazine Online** (2012) *"Telltale Games on The Walking Dead, and offering meaningful choices to players"*
Available at: http://www.edge-online.com/features/telltale-games-on-the-walking-dead-and-offering-meaningful-choices-to-players/
[77] **Handrahan,M.** (2013) *"Tales Of The Unexpected: The Strange Success Of The Walking Dead"*
Available at: http://www.gamesindustry.biz/articles/2013-01-29-tales-of-the-unexpected-the-strange-success-of-the-walking-dead

The game puts the player in control of Lee Everett – the leader of a group of survivors during a zombie apocalypse. One of the main points of appeal in the game are the constant choices and exposure to moral dilemmas the player has to experience as Lee. Most choices the player has to make, regarding for example saving the life of one of two survivors, have clearly communicated **direct consequences** – the tragic death of a valuable member of the group, Lee's remorse, or the personal thanks of the

relatives of the person the player has chosen to save. These are great affective moments capable of communicating clearly the complexity and hardships of the situation Lee is facing and provoke player to reflect on their own actions if in a similar situation. *(Picture 33)*
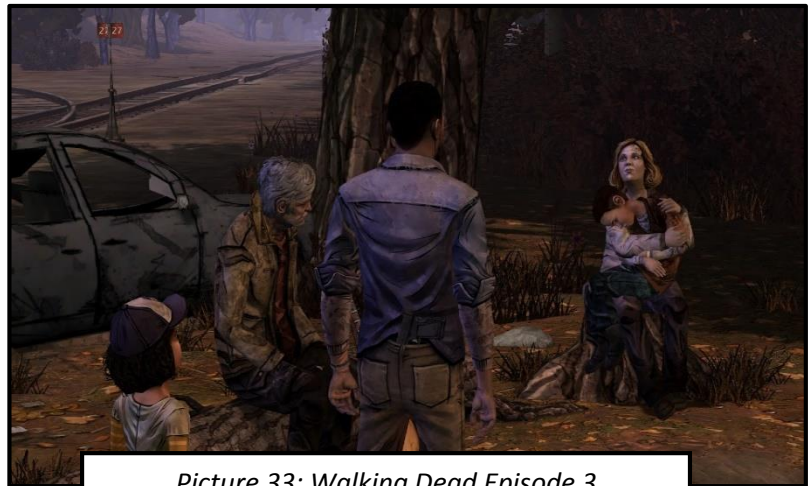
Picture 33: Walking Dead Episode 3

However these same choices will also have a variety of **indirect consequences**: the relationships within the survivor group develop over the course of the game. Two characters – Clementine and Kenny will undergo dramatic transformation in their character, attitude towards the Player and dialogue with other NPCs will change under the influence of the player choices made. The severity of those

accumulating indirect consequences will then go to influence the outcome of the final 2 episodes from the game. Similarly – a choice made by the players near the end of Episode 2 weather to salvage the food and supplies from an abandoned car, will have severe indirect

Picture 34: Walking Dead Episode 2

consequences for the game world later on and create one of the most potent affective gameplay moments for the game.*(Picture 34)*

Indirect consequence are often combined with Environmental Storytelling (Chapter 3.2.2) to generate player affect in relation to the completion of certain quest or task of significance.

In *Fallout 2*(Black Isle Studios, 1998) as an indirect consequence of the player character acquiring and returning an object referred to as The G.E.C.K (Garden of Eden Creation Kit) the environment of the Village of Arroyo – the place where the player starts the game – is transformed from a drying post-apocalyptic wasteland into a thriving green pasture. This change is entirely cosmetic and the does not influence the player character in any way. However the role of the player in these events and the fate of NPCs the player has come to care about, in combination with the complexity of the task completed for this eventual outcome, makes this powerful affective moment and a facilitates for a critical gameplay experience.

In a less serious example *Fable 2*(Lionhead, 2008) utilizes a similar approach to show the severity player actions can have as consequences in the game world. In a comedic over exaggeration of the effects the petty crimes the player character has committed during the childhood tutorial segment of the game an entire neighborhood of the game's main city- Old Bowerstone is transformed in a den of thieves. Respectively – if the player committed good deeds during the childhood phase of the game the neighborhood becomes one of the more bright and positive areas of the city. The example is too cartoonish and unlikely to generate critical gameplay, but depending on the Expanded Socio Cultural Background (Chapter 3.3) of the player (for example – the player being an easily impressionable child) it could still result in generating affect.

The Fable series are also a good example of Direct Consequences in the context of player actions and player character transformations. Based in their actions in the game and choices they made the player receive points on two simple moral scales – Good/Evil and Pure/Corrupt. As a direct consequence of

their evil or good deeds the appearance of the character changes indicating their nature – fair skin and halo for good characters and burning red eyes and horns for evil ones. *(Picture 35)*
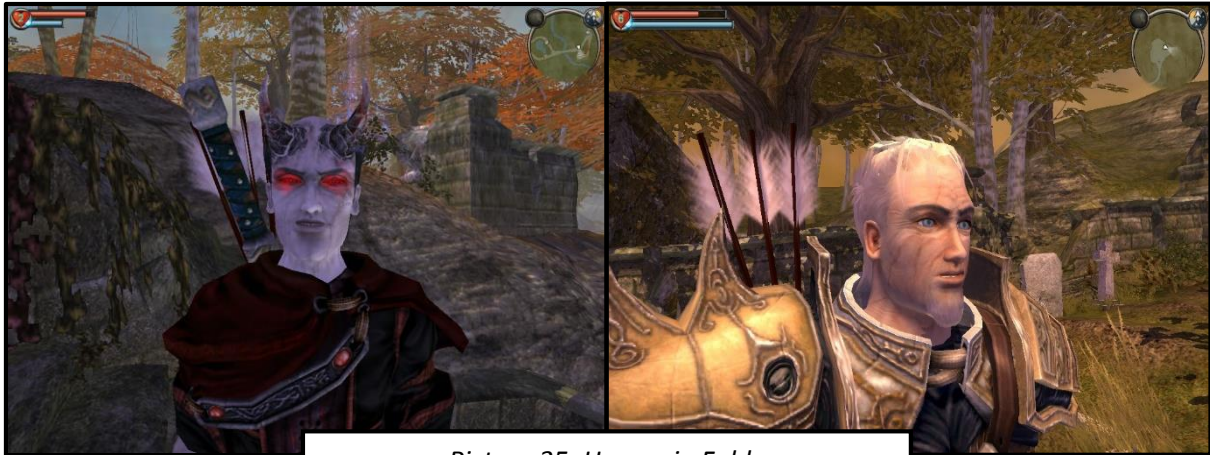
Picture 35: Heroes in Fable

Finally a game does not need to be non-linear or based on choice in order to establish the notion of direct or indirect consequence. Even when presented with the direct consequences of actions the players did not really have a choice but had to comply to and participate in order to proceed with gameplay (Chapter 5), the results can still have powerful affective potential.

In a rather tasteless, but still efficient demonstration of this *Pray* (Human Head, 2006) demands from player that they fight a monstrous boss which also happens be symbiotically linked to the main romantic interest of the player character . The player has no choice but to defeat the monster in order to proceed. As the players fight and damage the monster they also hear the painful screams of the character, until eventually both the monster and her die. Due to its presentation and execution the segment manages to overpower its kitschy nature and still results in a powerful affective experience for the player as they experience the direct consequence of their actions. A similar

Picture 36: Prey

situation is used to generate affect in *Resident Evil: Code Veronica* (Studio 4, 2000) where the players have no choice but to fight a friendly NPC character that has been infected via the Veronica Virus – again

the direct consequence being the emotional pain of the player character, resulting from the death of a character they have likely come to like and care about.

4.2. Immediate and Delayed Consequence

The notion of immediate and delayed consequences to player actions and choices, as means of generating affect and promoting critical gameplay, would be intuitively familiar to almost every player of role playing games. **Immediate Consequences** are transformations, events or reactions that occur either right after the moment of player action/choice or shortly after. No matter if direct or indirect, immediate consequences are also clearly communicated as resulting from player actions. **Delayed Consequences** on the other hand are normally presented with a significant time having passed between the moment of player activity and the presentation of consequences, within the relative timeframe of the game.

4.2.1. Immediate Consequences

Until relatively recently Immediate, Direct consequences used to be the dominant approach to presenting the effects of player actions on the game world and its characters. Titles such as *Never Winter Nights* (Bioware, 2003), *Fallout 3*, *Planescape* (Black Isle Studios, 1999) would present numerous


Picture 37: Immediate, Direct Consequences in Fallout 3

situations, ethical dilemmas and problems to players, that would require them to make a choice. Having made their choice or taken action the players would see the resolution play out and be presented the consequences immediately. *(Picture 37)*

These would take the form of changes to the game world, events, character dialogue and also changes to systemic elements such as the accumulation of game resources, experience or morality/karma points. After the Immediate Consequences have been presented to the player the gameplay would proceed, rarely referring or in any way addressing these singular events further.

In more traditional roleplaying games and fictional game worlds, relying heavily on Symbolical Encoding and Archetypical Markers (Chapter 3.1.1.) the immediate consequences of such choices could rarely result affective impact or provoke critical reflection in the players, as both the nature of the choice, its ethical nature within the morality of the fictional universe, as well as consequences of the actions are clearly communicated. To rephrase a rather popular reference amongst game critics – when the player can clearly see that one course of action will obviously turn them into Mother Theresa and the other results in eating babies it is hard to imagine anyone critically evaluating the consequences.[78]

These types of fake dilemmas and trope choices are so commonly used, it be hard to imagine a "fantasy RPG" in which the player character is not asked at least once to choose between accepting or rejecting the money offered to them as reward by a poor peasant, only to have their choice (as an immediate consequence) be commented on by an accompanying character.
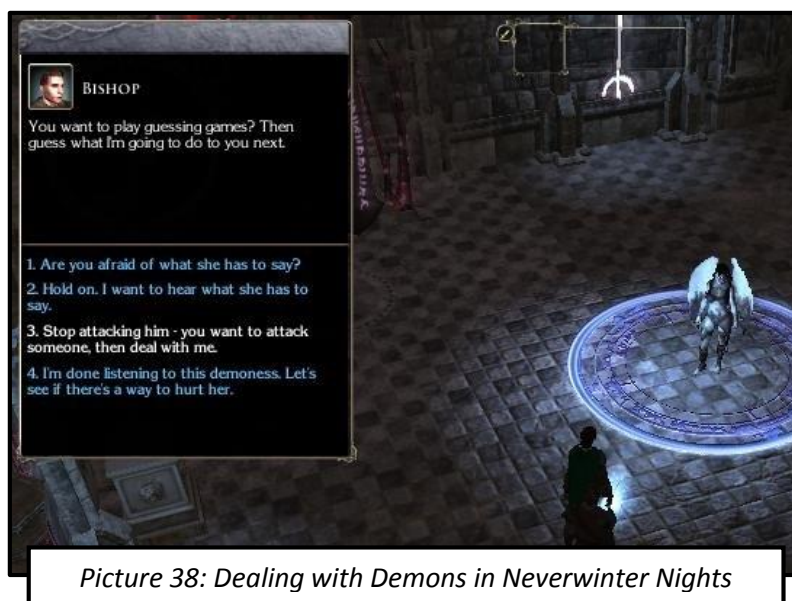
Picture 38: Dealing with Demons in Neverwinter Nights

[78] **Croshaw, B.**(2007) *Zero Punctuation: Bioshock Review*
Available at: http://www.escapistmagazine.com/videos/view/zero-punctuation/4-BioShock

Immediate Consequences do not need to be so simplistic and clear cut as in the examples above. Even in some fantasy titles the consequences of player actions, even if Immediate and Direct, are not so evident due to the gray morality of their fictional universes these games are set in. *(Picture 38)*

The players could potentially commit to an action expecting one particular outcome or set of consequences, only to witness a dramatic turn not matching their preferences and leaving them indeed affected or in a state of critical thinking.

Yet even if such scenarios would occur the Immediate Consequences approach would often result in what I would call a "save/reload morality". Players would select a choice and experience its consequences only to reload their game and select the different options and experience their consequences. Finally the player would replay the segment one final time and settle for the choice with consequences they find most fitting for their preferences. Suffice to say this diminishes the potential of generating critical gameplay, instead promoting an instrumentalised, economical understanding of the game and the consequences of player action.[79]

Still the critical acclaim of the titles above, the cult classics status of games such as Fallout and Planescape, and player's continuous fascination with their choice and consequence dynamics has to be acknowledged. It also points out that if properly presented in a well enough build context, Immediate Consequences could indeed result in player affect and potential critical gameplay. However when combined with the economic considerations of players (Sicard,2009.pp.107-150) and the phenomena of "save/load" morality it would seem like in many cases player consideration of the Immediate Consequences is more of an interference, then a facilitator to critical gameplay and player affect.[80]

However there are also multiple examples of Immediate Consequences used effectively for designing critical gameplay. One notable occasion would be once again *Bioshock*'s Little Sister Dilemma, which

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[79] **Sicart, M.** (2011)"*The ethics of computer games"*
MIT Press.
[80] **Fullerton,T**. (2005) *"Improving Player Choices"*
Available at: http://www.gamasutra.com/view/feature/130452/improving_player_choices.php?print=1

was used earlier as an example in regards to Building Context (Chapter 3). While clearly being a case of Immediate Consequence, the presentation of the player's choice very clearly communicates the seriousness of player's actions and the acts of either care or violence towards these characters. Even if immediate, direct and simplistically dualistic in its Presentation of Consequences, the immediacy and the impact the player has over the life of a helpless creature itself is enough to generate a strong affect and critical reflection.

In another example, the second and third installment of the *Mass Effect* series also utilize Immediate Consequences in an interesting way. At certain moments of gameplay or cut scenes the player would be given an onscreen prompt for an action that expresses the moral nature of the player character – Commander Shepard as either a Paragon *(Picture 40)* or a Renegade *(Picture 39)* . This will be followed by an immediate action of the Shepard and thus – immediate consequences of the player's choice. The presentation of these "interrupt actions" is dramatic and prominent enough to ensure player emotion and affect at witnessing the consequences of their actions play out on the screen.

Picture 39: Renegade Interrupt

Picture 40: Paragon Interrupt

4.2.2. Delayed Consequences

While the example above show that Immediate Consequences can be utilized to facilitate critical gameplay, I would argue that Delayed Consequences are more fitting for generating affect. This is due to the fact that by distancing player actions and choices from the experience of their aftermath, economical thinking and pragmatic evaluation becomes harder.

Delayed Consequences leave players guessing – provoking reflection and critical thinking even before the actions were committed – they also leave players without immediate feedback of the potential outcomes, thus making the player largely guided by their personal preferences and not some sort of goal oriented rational. In that sense Delayed Consequences stimulate the player to consider their actions in a manner a lot closer to reality, where more often than not – we cannot know the full extent of the consequences of our actions immediately. Getting the player in such modus of thinking already expands their considerations of the player experience beyond the context of the game.

Lastly Delayed Consequences also include the element of surprise in their means of generating affect. If delayed long enough or presented in an unexpected way, a delayed consequence for an earlier choice could catch a player completely unprepared adding additional emotional impact.

The use of Delayed Consequences to provoke players toward critical gameplay consideration is clearly exemplified in *The Witcher* series (CD Project RED, 2009-2014) and once again Telltale's *Walking Dead.*

Set in a seemingly traditional dark fantasy world *The Witcher* puts player in control of Gerald of Rivia – a genetically enhanced monster hunter for hire, distrusted by the human population of the land due to his profession and inhuman appearance. The game offers player the already mentioned array of choice-based situations, quite similar to other fantasy titles – helping or refusing to provide assistance to various characters, choosing exactly whom to support in disputes, accepting or refusing awards amongst others. What the player is not informed about in any distinctive way however is that the

choices made throughout some of these trivial tasks early on will affect events and lives of entire groups or factions of characters later in the game – with around 5-6 hour interval of gameplay time between the point of choice and the Delayed Consequence.

One particularly distinct example of Delayed Consequences in The Witcher would be the "Strangers At Night" quest chain during the very first act of the game. The players are approached by a village trader who asks Gerald to kill some Drowners – a type of undead living near lakes – as the creatures are haunting the village's stockpile at night and destroying his goods. After the quest is complete the player is paid in game currency and rewarded with experience in a standard manner. However right after completion the player is approached by a group of elves.

The elves plea Gerald to buy supplies and weapons to hunt animals, as they have already agreed before with the trader. *(Picture 41)* As "non-humans" are being hunted in the fictional world of The Witcher their only chance was to approach at night. The player can then broker a deal between the trader and the elves getting additional experience and the elves gratitude. The player can also chose to attack the elves as elven rebels are worth a bounty that can be collected, as he was informed by the trader earlier. *(Picture 42)* So far the quest follows a rather standard design of having Immediate and Direct consequences.

However, based on the player actions, during Act 4 several Delayed Consequences will unfold. If the player has chosen to sell the weapons to the elves as soon as Act 4 of the game begins a short cut scene will play. The cut scene will narrate how the elven rebels, disparate from the events that have occurred during Acts 2 and 3, but armed with the weapons bought from the merchant have attacked human settlers and killed innocent civilians. *(Picture 43)* As a result humans will be even more mistrusting and hostile to Gerald as he is also a non-human. If the players have alternatively – chosen to kill the elves and get the bounty - they will see a different scene and hear dialogue from other characters of how the elves are starved and dying, unable to hunt and even defend themselves. *(Picture 44)*
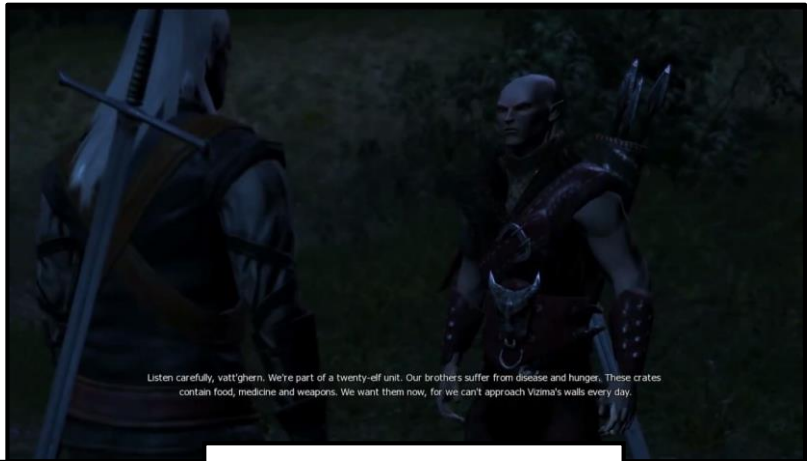
Picture 41: Deal with Elves
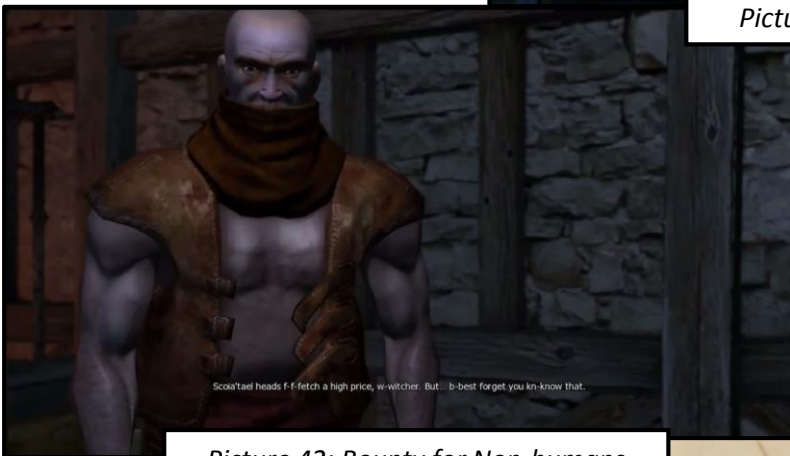
Picture 42: Bounty for Non-humans

Picture 43: Attacks on Humans

Picture 44: Attacks on Non-Humans

The above quest chain would be a prime example of how Delayed consequences to choices made by the player previously, without announced significance, can be used to provoke critical reflection and result in careful player evaluation of the meaning behind their own actions in game. In The Walking Dead games however, the designers have made it a very clear point of informing the players of the Delayed Consequences of their actions.

As mentioned earlier in this chapter in The Walking Dead games, Indirect Consequences of the actions and choices, made by Lee – the player character, will play a heavy role in determining the state of the world and the attitude of certain characters. These are all also presented as Delayed Consequence and

Picture 45: Informing Delayed Consequence

more importantly – they are clearly communicated to the player via in-game text informing them that "The Character will remember your choice" *(Picture 45)*. This message, even if entirely non-diegetic reinforces the potential severity of consequences for player actions, already at that point prompting critical reflection and evaluation of the potential Delayed Consequences.

A prominent "Character remembering your choice" would be Kenny – one of the game's main support characters. Based on player choices and actions thought-out all 4 of the games previous chapters, the character will either chose to support or leave Lee in his search for Clementine during the final episode of the game. Based on Kenny's presents or not in the final act of the storyline, game events would alter dramatically, making player experience Delayed Consequences of weight rarely present in other digital games.

The context build around the presentation of these Delayed Consequences unfolding via audio-visual presentation and character dialogue, makes this particular use of them especially emotionally powerful and likely to provoke the player experience of critical gameplay.

Lastly, Delayed Consequences also are commonly used together the Consent technique of **Accumulative Play Behavior** (Chapter 5.3) in order to discreetly shape the game experience for increased relevance to the player and thus – increase its affective potential.

In Silent Hill 2 the game's system tracks seven parameters of player behavior and actions taken throughout the moment to moment gameplay. These relate to the different player personas of the players themselves and are used as an indicator of the emotional state of the player, which is also the de facto emotional state of the player character. The various configurations of metrics on these seven player activities determine the outcome of the Silent Hill 2's story and James's ultimate fate. Thus the ending of the game itself becomes a Delayed Consequence of the player behavior and actions throughout the entirety of the experience.

Similarly, in *Dishonored,* a backend profiler tracks down several player activity metrics. These are used to determine whether the player actions in gameplay are disrupting and further destabilizing the operation of the already weakened city of Dunwall. If these metrics exceed certain values throughout a mission this leads to the slow deterioration of the city further into chaos – the number of plague rats increases, as well as the number of victims amongst the game characters. After a certain point in the game this also dramatically changes the state of the game world for the final 2 missions in the game, the behavior of central characters and the final outcome of the game's story. The entire final act of the game is transformed as a Delayed Consequence for player actions.

4.3. Chronological and Parachronological Consequences

The last dichotomy in presenting consequences I would like to explore, even if shortly, would be the possibility to generate affect and critical gameplay, by presenting consequences to actions **Chronologically** or **Parachronologically**.

In most cases consequences are presented for actions, which the player has participated in or witnessed – thus consequences are presented in a chronological order following events that "enabled" them. I would refer to this as **Chronological Consequences**. All the examples explored so far in this chapter when pointing out at either Direct, Indirect, Delayed or Immediate Consequences have been Chronological.

However with the rise of independent development several prominent titles, such as Braid, Limbo or Dear Ester, own a lot of their affective potential due to the player realization that the game's entire gameplay structure as well as various events that transpire, are actually in themselves consequences for events triggered by the player characters prior to the beginning of the actual game. I would argue in these cases the player is experiencing **Parachronologically presented of Consequences**.

In these cases of **Parachronological consequences**, the affective potential lies in the design of the means by which the player realization that they are in fact experiencing consequences will occur. By realizing that their ingame activities are the results of events which have already transpired, it is the power of that realization that makes the player critically aware of the significance of the gameplay so far. This realization can be a gradually revealed significance of past events and actions of the player character to the currently experienced gameplay, states of characters or the world.

Another example for affective use of Parachronological Consequence is simply a specific moment of dramatic reveal of the Parachronological nature of player actions – The fact that certain player

activities, world state or the entire continuity of gameplay the players have experienced and participated in are the result, or being made possible by the actions of the player character before the beginning of player's involvement.

Most famously Braid, as well Bioshock: Infinite utilize Parachronological Consequences in such manner and respectively both have raised active discussion about the efficiency of this approach to adding critical weight to the player experience.

One last notable example of Parachronological consequence would be the final segments of *Legacy of Kain: Soul Reaver 2*. In this game the player controls an undead wraith called Raziel on his quest for revenge. The game has a rather complex time-traveling storyline which ultimately results in Raziel fighting his past self (still alive and human).

Picture 46: Paradoxal Parachronological Presentation of Consequences

As Raziel manages to kill his past self the game's chronology comes "full circle" – The death of Raziel at the his own hands becoming the trigger for the chain of events that enable the story told in the previous installments of the Legacy of Kain series: *Blood Omen 1, Sour Reaver 1* and *Blood Omen 2*. In this case, all the gameplay and story events in the other games in the Legacy of Kain series, retroactively become the Parachronological consequences of player-character actions in Soul Reaver 2. *(Picture 46)*

Lastly it should be noted, that to a lesser extend such Parachronological Consequences can be found in any game series that share a continuous storyline, between their different installments - games like *Portal* 1 and 2, or The *Mass Effect* and *Modern Warfare* series. All the events experienced in a current instalment of a series are in some way the Parachronological consequence of the player actions in the previous entry.

CHAPTER 5: PLAYER CONSENT

The last element I would like to explore, which can be utilized by designers in order to provoke affect and the emergence of critical gameplay, is what I would referred to as different instances of using Player Consent. I would define Player Consent as the *act of willful participation on side of the player in the activities offered, demanded or needed by the game system in order for gameplay to proceed.* It is important to know that the player should possess the knowledge of these activities, not being simple interactive operations, but also actions that affect the game world and its characters via the Context (**Chapter 3**) they are presented in.

Every time a digital game state changes this is mediated to the player via audio-visual feedback and changes in the game world and the game elements which compose it. On systemic level this is simply the expression of Norman's feedback loop (Norman, 2002, pp.45-53). However the act of player input, which results in this audio-visual feedback as well as results from it, is an act of consent, both to the demands of the game system for continual progress and to the new state of the game world that results from player actions.

The affective potential of Player Consent would be the result of player's suspension of disbelief[81] and accepting a semiotic value to their player agency - The player choses to perceive interactions with the game not as the execution of actions and providing input, but as character actions in the game world. Again this all relates to the player making the willful choice to participate in an act of play for the purposes of recreation and "stay in the magic cycle" (Aarseth,1997,pp. 221-235) moment after moment in gameplay.

Thus I would argue that every action committed by the player after the moment they chose to press "New Game" in a digital game is an act of Player Consent. From that point on – any action taken by the player, even if not consciously acknowledged by the players as considerable is consensually given

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[81] **Schaper, E.** (1978) *"Fiction and the Suspension of Disbelief"*
In *British Journal of Aesthetics*, 18(1), 31-44.

and the player re-affirms this consent with the act of choosing to continue playing and interacting with the game and its world.

Finally it should be noted that during the conception and initial research for this thesis this act of consenting to the game state and reacting to it was referred to as "Player Choice". However the notion of player choice and the resulting discussions on player agency and freedom in digital games are both quite problematic [82] [83] and overly exposed in current game design research[84][85]. Also in purely game design terms "player choice" is normally used in relation to very specific problems and scenarios in relation to either non-linear and branching storytelling or diverging paths. Thus the term "Player Choice" ends up being both unclear and limiting for the purposes of discussing how player agency and the interactive affordances of a game situation can be used as the vehicle for generating affect. As I will point out via examples in this chapter, Choice is just one of the approaches to using Player Consent.

(Chapter 5.2)

Player Consent to the game world and its demands can then be utilized in order to generate affect and critical gameplay in several ways. Players can be "pushed" to interact and participate (thus "consenting") in particular moments of gameplay, which are designed to be affective and carry the potential for critical reflection via their context **(Chapter 5.1)**. Or the input they have to perform for an interaction they consent to take place could be designed to mimic a particular critically charged Real world activity **(Chapter 5.4)**. Another instance would be the accumulative tracking of player behavior and its use as an evaluator of consent for a future action. **(Chapter 5.3)**.

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[82]**Takacs, M.** (2013) *"Video Game Morality Systems: Common Mistakes"*
Available at: http://www.dorkly.com/article/56575/5-mistakes-every-videogame-with-a-morality-system-makes
[83]**Parker, L.** (2009) *"Black or White – Making Moral Choices in Video Games"*,
Available at:http://www.gamespot.com/articles/black-or-white-making-moral-choices-in-video-games/1100-6240211/ Last Visited: 06.03.2014
[84]**Morrison,B.** (2013) *"Meaningful Moral Choices in Games: A practical Guide"* Available at:
http://www.gamasutra.com/blogs/BriceMorrison/20131119/204733/Meaningful_Choice_in_Games_Practical_Guide_Case_Studies.php Last Visited: 06.03.2015
[85]**Zagal.J** (2009) *"Ethically Notable Videogames: Moral Dilemmas and Gameplay"* ,
DePaul University Press

5.1. Demanded Action

Putting the player in an interactive scenario where they have no choice but to provide input in order to continue a game's progress and then designing that input as resulting in an interaction that has affective weight would be the first approach to utilizing Player Consent in order to facilitate critical gameplay. This "**Demanded Action**" approach to Player Consent can range from singular inputs, to short sequences or complex gameplay segments that the players could not avoid.

A good example of a single input Demanded Action can be found in *The Darkness 2* (Digital Extremes,2012). Hardly an example of narrative brilliance, at its very end The Darkness 2 still manages to utilize this technique in order to generate affect rather effectively. After the final battle with the titular Darkness, the player character – Jackie Estacado – is finally reunited with his love interest-Jenny. In a typical "the hero gets the girl" Campbellian moment, Jenny embraces the character, at which point the credits start rolling.

However moments later the game camera is faded to the scene, returning the player to the game. Jenny is still holding the player character with her eyes closed and a smile, with the scene set to

melancholically sweet music, indicating a moment of perfect happiness. At this point the player is abruptly informed by an on-screen message telling them to "Let Go"*(Picture 47)*

Other than simply quitting the game (and ceasing player consent)
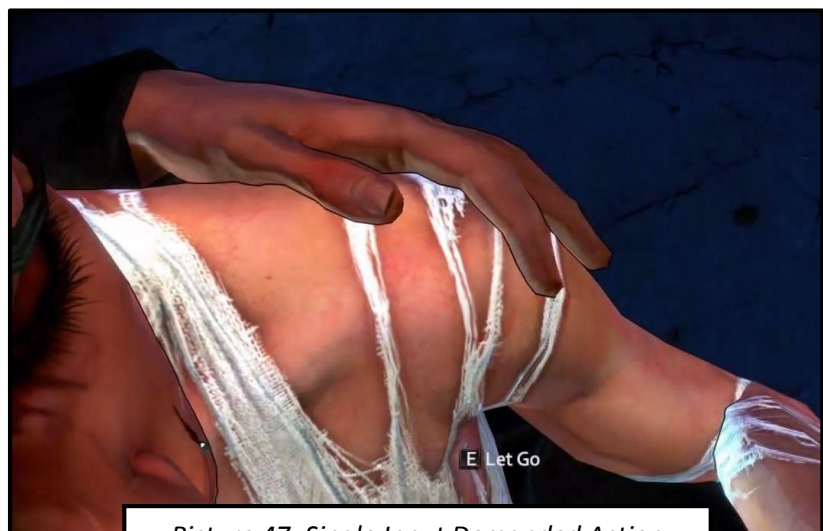
Picture 47: Single Input Demanded Action

there is only one other interactive option available to the player at this point – press the assigned button for letting Jenny go and consent to the Demanded Action. The player is absolutely free to stop playing

at this point – yet in order fulfil the characters narrative arch and to experience the final cut-scene of the game they must break this peaceful moment and more importantly – make the willful choice of the character to do so. The affective potential of this Demanded Action is even further enhanced by the player's Expanded Socio Cultural Background and knowledge of what is likely to follow. Suffice to say the actual final ending is a lot more dramatic and full of tragic connotations for both Jackie and his love.

Demanded Action is also used in *Metal Gear Solid 3*(Kojima Productions, 2004), just like in *The Darkness 2*, near the end of the game, but in the form of a complex choreographed gameplay segment. In a climactic sequence the players have to fight and eventually – kill "The Boss" – a comrade in arms and maternal figure

Picture 48: Extended Demanded Action

for the game's protagonist – Snake. Throughout the game the mentor-pupil relationship between the player character and The Boss is emphasized during various dialogues and cut-scenes. Right before the sequence is presented a scene emphasizes Snake's total refusal to acknowledge the need to fight his mentor and friend, even when it is made necessary by the events unfolding in the game's storyline. *(Picture 48)*

In this case Demanded Action is not established by some sort of unique gameplay, distinct from the rest of the player agency - if in The Darkness 2 player had only one possible button prompt, here the player must actively use their entire array of inputs and game mechanics, as they engage in one of the most complex combat sequences in the entire game. Instead the affective potential of the Demanded Action is achieved by the players needing to continuously provide their consent, while being aware of

the player-character's drama as these interactions take place, and at the same time well informed of the necessity of such course of actions towards a character they have come to like(The Boss).

Bioshock: Infinite on the other hand holds several sequences of Demanded Action that can be placed "in between" the two above cases. The player's interactive agency is limited in some aspects, such as removing player character's ability to use weapons or powers, but core freedom of movement remains intact. In one particular sequence the player can only proceed if they first approach a baby crib and pick up a new born child from it. The player can then not leave the room unless they hand the child to another character. Being aware of the significance of this action for the Parachronological Consequences (5.3) they have already experienced previously in the game, this turns the segment into an efficient tool for generating critical gameplay.

5.2. Using Choice

Giving players Choice over the development or resolution of some situation that can affect the game's final outcome, the state of the game world or the fate of certain characters is another aspect of using Player Consent that can generate player affect, and by far one of the more popular solutions to get players invested in a game's story and the world the players explore. After all – what could be more influential to a player's sense of participation and involvement, than directly controlling the nature of events or choosing the fate of characters?

In a way, as a form of player consent, situations of choice are a type of a demanded action – the gameplay situation will not proceed until the player has taken one of several interactions made available to them, which will then influence the outcome of a situation. As said earlier Player Choice and the problems associated with it are already vastly explored, and proper analysis of the way choice and agency affect the player experience could be the domain of an entire sub-field of game studies.

When it comes to the generation of affect however, it would help to notice an interesting chronological

progression in design practice. It could easily be argued that in digital games for the 90s and early

2000s, a form of binary morality and clear communication of consequences (Chapter 4) was the

predominant approach to creating situations of Choice. Titles like *Star Wars: Knights of The Old Republic*, *Fable* and even *Fallout* would clearly place and even arrange vertically choices on a scale from less to more morally just in the context of their game world's morality systems. (*Picture 49*)

Picture 49: Vertical "Morality" in Dialogue

Meanwhile in contemporary games, moral ambiguity and less clarity of outcomes seem to be a more

popular approach. Even straight-forward fantasy titles such as *Dragon Age: Origins* (BioWare, 2009)

would attempt establishing moments of choice with unclear consequence and elements of moral

dilemma, in order to provoke critical reflection. Some titles like the already mentioned Witcher and

Walking Dead series would "scrape" the idea of clear cut correct choice all together. *(Picture 50)*
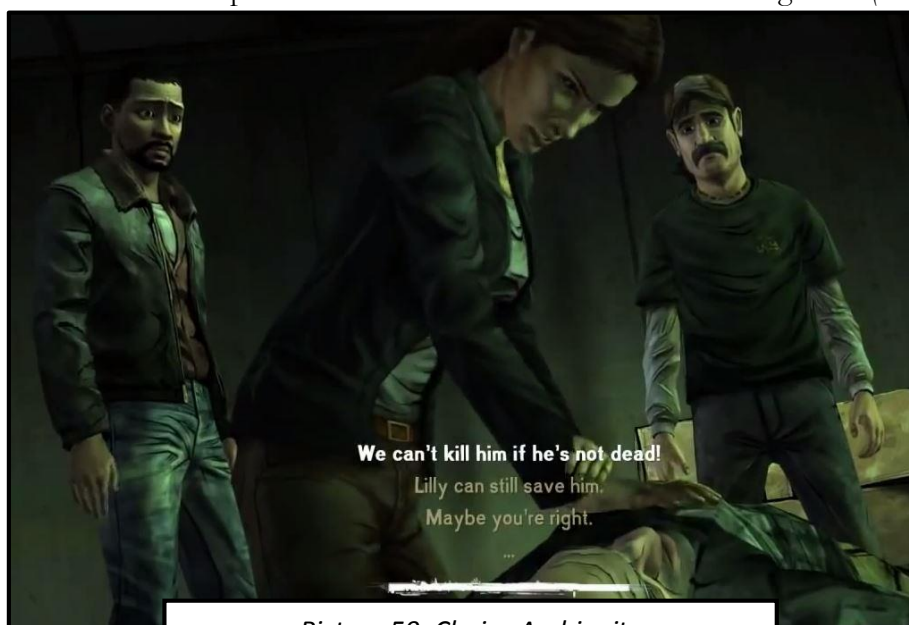
Picture 50: Choice Ambiguity

5.3. Accumulative Play Behavior.

Extracting metrics of player performance for the purpose of analysis has become extremely prominent with the rise of free to play games in an effort to optimize player experiences and ensure a steady flow through the player activities, as well as for balancing the multiplayer component of games.[86] However, following metrics of player behavior in certain situations or continuously through the course of gameplay could be used as another approach towards using the continuous player consent to certain activities in order to generate affect and "guess" players predisposition towards certain elements of the game experience. By choosing metrics of relevance to the play behavior, that we track through the player activity we can utilize this Accumulative Play Behavior as an indicator of player attitude and trigger events or shape the experience in ways that are more likely to appeal to them and provoke an affective reaction.

Even before the use of metrics and game analytics for the purposes of monetization became a common practice several, single player titles were utilizing this approach, even if on a very simple level, exactly towards optimizing affect and provoking players towards critical realizations about the consequences of their play style. *Silent Hill 2*'s and *Dishonored*'s use of such an approach in order to generate Delayed Consequences **(Chapter 4.2)** and alter their endings was already explored. A similar approach is also used in to determine the ending sequence the player gets to see in *Bioshock* – in that case the metric being the player's actions towards the Little Sisters.

A lot more complex example of utilizing Accumulative Play Behavior for affect, even if not necessarily aiming towards provoking critical gameplay, would be the Game Director A.I. system used in Left4Dead.[87] By following a combination of metrics on player performance, health and resources this

[86]**Drachen, A., & Canossa, A**. (2009) *"Towards gameplay analysis via gameplay metrics"*.
 In *Proceedings of the 13th International MindTrek Conference: Everyday Life in the Ubiquitous Era* (pp. 202-209). ACM
[87]**Goodman,P.** (2010) *"Why Left For Dead works ?"*
Available at: http://www.gamasutra.com/view/feature/6235/why_left_4_dead_works.php?print=1

complex system adjusts the nature of various game elements, such as the number of enemies or additional resources, as well as the triggering of different atmospheric events and adjustment of light levels in the game space. This is all done in order to balance the game's difficulty and audio-visual presentation towards an optimally affective action-horror game experience.

5.4. Gameplay Mimesis

Establishing a similarity between the performative nature of the interaction and the player character action it executes in the game is another way to affectively "rig" player activity and use Player Consent to provoke critical evaluation.

One example for this would be the player effort used to execute the action being used to meditate the characters physical or emotional struggle in performing an activity in the game. Another approach is to establish a similarity between the nature of player movements (direction for example) via an input device and the nature of movements the character performs in the game and thus establish a sense of an "empathic link" between the player and the player character. By strengthening the feeling of player embodiment within the player character this establishes the notion of a more direct role and contact with the game world. Lastly - the availability or not of a certain action as a representation of the character's state can also be used to form gameplay mimesis.

The *God of War* (Ready at Dawn,2005-2013) series are filled with examples of Gameplay Mimesis used to generate affect and establish empathy with the otherwise typical anti-hero protagonist – Kratos. In particular *God of War: Chains of Olympus* (2008) contains a sequence of gameplay mimesis that particularly stands out as an attempt to generate affect.

After being finally reunited with his daughter in the Gardens of Elysium, a goal that the character has been fighting towards throughout several previous games, Kratos has to once again sacrifice being with his family in order to complete his quest. As the cut scene of this realization has played out the players

find themselves back in the game with Kratos's daughter clutching to her father's foot and not willing to let them go.*(Picture 51)*

The player must then aggressively tap the action button in order to make Kratos reluctantly shake his
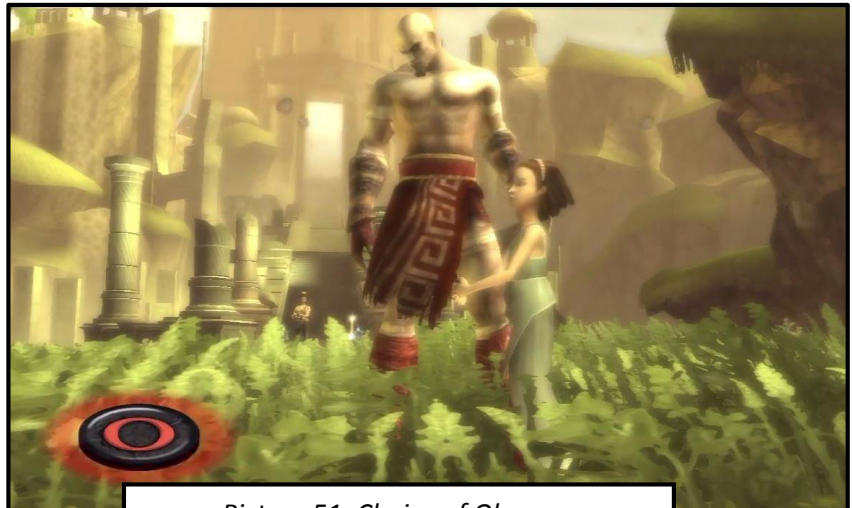
Picture 51: Chains of Olympus

daughter off. In order to make the sequence even more affectively charged this activity has to be performed two more times with increasing intensity of the input required. As Kratos is a physically imposing character the "gentle touch" of the character animation is in strong contrast to the intensity of player "button mashing" demanded. Thus the intensity of input serves as an interactive metaphor for the emotional effort, as much as the physical effort the character, in a great example of Gameplay Mimesis.

As a contrary example in the 2013 reboot of *Tomb Raider*(Crystal Dynamics, 2013) there are several sequences depicting Lara's suffering and physical turmoil, that directly utilize the physical effort of the player input as a mimetic marker of Lara's own physical effort. One particularly graphic example early

on *(Picture 52)* has the player participate in a similar type of button mashing, but in this case serving to provide input for the heroine dislodging a piece of rusted steel. The affective potential of this sequence is based on the pure physicality of the activity and the
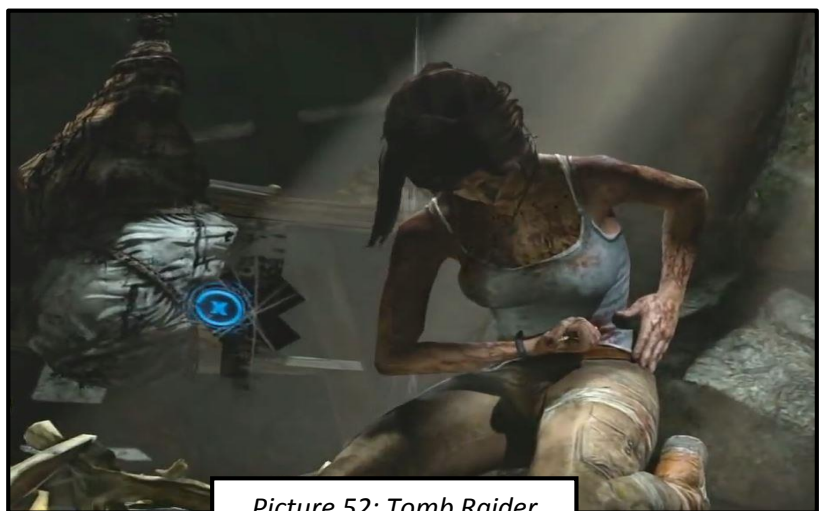

Picture 52: Tomb Raider

sense of relief experienced by both Lara and the player as they finally manage to pull out the metal - the interaction demanded from the player is realistically, physically exhausting enough for the player to experience a sense of relief.

Finally, *Depression Quest* utilizes Gameplay Mimesis in a completely different way. If *God of War* and *Tomb Raider* utilize player consent to an action to establish affect and provoke empathy, Depression quest manages to use "inaction" – the inability to execute action and give player consent. In a brilliant example of ludo-narrative synchrony the game intentionally limits the range of available actions that the character can make in a situation, but signifies such actions as possible – just not available in the characters depressed state. *(Picture 53)*

This serves as a brilliant application of gameplay mimesis, putting the players in the shoes of a depressed individual, who even if they see the potential solution to a problem (i.e. action they could, or would like to take) still are not able to take it, due to the nature of their condition.
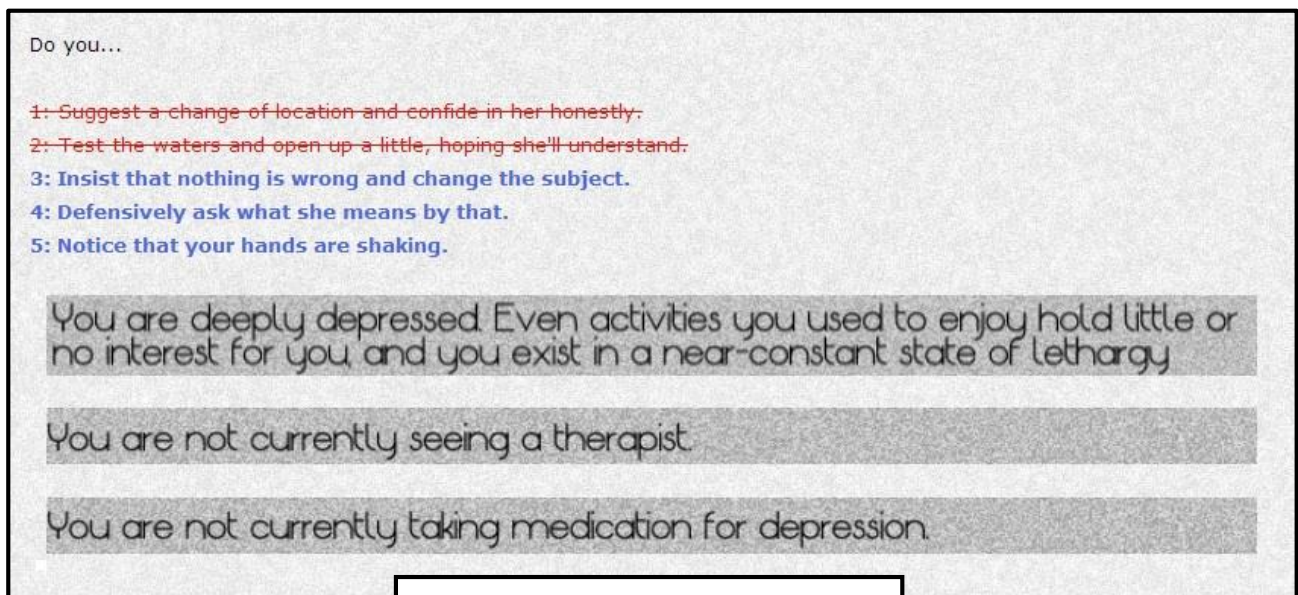
Picture 53: Depression Quest

PART III: DECONSTRUCTION AND CONCLUSION

CHAPTER 6: DECONSTRUCTION – DESIGNING FOR CRITICAL GAMEPLAY

In the final chapter of this thesis I will be examining Deconstruction – the main production of the thesis and my personal attempt at practical integration of the techniques for designing player affect and provoking critical gameplay discussed in the previous chapters.

6.1. Production and Game Overview.

Deconstruction is a short, experimental game project which started as a simple exploration of the principles of Narrative Architecture and Environmental Storytelling (Chapter 3.2), but was then expanded into a more complete game. It aims at exploring digital games as both engaging gameplay experiences, rewarding on their own ludic merit and an expressive ground for designers and artists to communicate emotion to audiences in an engaging manner.

Starting from scratch in the Unity engine on 2nd of November 2013, Deconstruction was brought to its current version on the 17th of March 2014 with a one month development break in January 2014, making the current development time less than 4 months. On the production side, no external help was used in the creation of the game's visual assets or in the design of the game's mechanics, levels or aesthetics and their implementation. The only exception to this are a single tree model, part of Unity's environmental assets package and a last moment animation made by my colleague Ville Kuvaja. The audio design and the creation of various sounds, ambiences and music for the game is the work of two other colleagues of mine:

Can Uzer (sound effects and ambiences) and Gabriela Juganaru(music and sound effects).

The above paragraph, describing the scale of the production, was necessary in order to establish that the various techniques to designing Context, Consent or Consequences discussed so far can be implemented and applied to most games production, regardless of team size, production scale or production time.

In terms of player experience and gameplay Deconstruction is a surreal first person "platforming" game in which the player is tasked with making their way through the environment, by jumping around and picking glowing collectable objects through a series of non-Euclidian level geometry challenges. The environments themselves are a visual representation of the player character's personal Purgatory – a collection of memories and experiences – that they find themselves locked in after their death. By exploring the environment the player takes the character on a journey through their own memories, slowly piecing their life back together. As this goes on, Deconstruction intends for the players to slowly come to a realization of what went wrong with the character's life, ending the game with a final reveal segment.

As the player gradually comes to understand, Deconstruction is a game about alcohol addiction. The nature of gameplay, its mechanics and presentation aim for a flow of a game experience, in which the player, just as the player character himself, are unable to firmly grasp or come to terms with the alcohol problem and how it ruined their life, while at the same time being more and more confronted by it. A parallel is established between the compulsive need of players to "collect" and not question their own player agency and the compulsive behavior of addiction and being "locked in a habit". The more player "collect" in order to progress – the more devoid of other game objects the environment becomes and instead random bottles are spawned through the levels. The number of collectables also influences the number of bottles spawning during the final sequence of the game. At the same time in order to proceed, the player has no other option but to collect, replicating on how alcohol was the only way for the player character to "keep going".

In the next sections the means to communicate all this to the players via the various techniques for provoking critical gameplay through Context, Consequences and Consent will be listed and explored in order to demonstrate their feasibility and practical application.

6.2. Building Context in Deconstruction.

6.2.1. Using Presentation and Appearance

A key aspect of Deconstruction I wanted to use to get player's critically reflective on their game experience and its nature was communicating the notion of Personal Purgatory – The idea that the player is inhabiting a place reflecting not the physical existence, but a subjective interpretation of it. Establishing the game world as a space of reflection and realization would make the player more open towards interpreting their play experience and provoke critical reflection from the offset.

In order to do this several visual **"short hands" and tropes** associated with the notions of Purgatory, "Inner World" and "Broken Mind" were used:

-Separating the individual pieces of the environment and leaving them "suspended in nothingness"

-Making the different segments feel like broken pieces of a larger whole, via the use of sharp and "broken" outlines and materials– splintered wood and twisted metal.

-The dominant use of gray and black as background colors on top of which objects of significance are emphasized via the use of strong oversaturated reds and oranges.

-Adding post processing effects used in media to express distant and detached places and transmissions from them - light "white noise", grain filter, and a light grey fog.

Color coding is utilized to signify the collectables as both desirable objects, but in a way communicate their harmful nature. That is further emphasized by the unnatural sounds of boiling hot liquid they emit.

The appearances of objects is also intended to provoke player affect by introducing the game world – the state of the player character's mind as "undesired", "abandoned" and "decrepit" – a representation of the characters own deteriorated state. To achieve this the core textures used are of aged wood and

rusted metal, with some of them utilizing normal and specular maps to create the idea of wet or crumbling surfaces.

A final notable use of Building Context via Presentation is the thematic unity the various personal items to a time period – the main character's tie, his baseball hat as a kid , fedora as an adult, furniture pieces and office objects. All these were based of the aesthetics of 1960s U.S. – A cultural context, often associated with stories of domestic drama and alcohol abuse.

6.2.2. Spatial Design

As mentioned earlier Deconstruction was conceived as a demonstration of the principles of **Narrative Architecture** and how it can be used for the purposes of communicating emotion and encourage reflection in the players. The non-Euclidian structure of the level geometry itself is the most central of these architectural solutions – on its own it is already enough to communicate that the game world is not a real world space and as such it serves a purpose of metaphoric representation. Put simply – a game world organized in such a manner is done so with intentionality beyond simple function in mind.

The player movement through the core level geometry in both levels, as well as the placement of the various platforms in Deconstruction aims at recreating the feeling of descent and movement towards a negative outcome. While the platforms are seemingly horizontally aligned and there are platforming sections that go both upwards and downwards the most prominent platforming sequences – where the jumps are longest and the distances most impressive - are always descending. The same goes also for the most visually impressive angles and "panoramas" to the environment - all of these are opened towards a "downwards" verticality and the player normally experiences them while descending.

In Deconstruction's second level "The Grind" Narrative architecture is used to convey the feelings of boredom, frustration and helplessness - The player has to cross a visually frustrating space dominated by the sounds and backgrounds of gigantic rusted gears, representing the maddening routine of the

character's daily job, with the only variety in the form of "collectables". Similarly a hard to navigate labyrinth-like cage is used to represent the feeling of isolation and inability to establish meaningful relationship with other characters. The path through the labyrinth will only open once a "collectable" is picked up.

The Red Curtains are the only intentional Landmarks in Deconstruction – They are not intended to serve a role in generating critical gameplay, but be a strong visual signifier and offer a navigational tool to players - a clear reference point. They can thus generate affect in the form of relief from navigating the more frustrating areas. They also mark the beginning of a new memory segment and represent proximity to the "next piece of the puzzle" for the player, which will eventually help piece the character's story together.

As Deconstruction has no cut-scenes or voice acting **Environmental Storytelling** is one of the prime means of communicating the storyline and provoking critical reflection.

Memory segments that the player can discover offer insight on the story, and are composed of multiple objects arranged in ways that tell of characters or events important to the player character and their eventual loss:

-A tree house where the player and his brother used to play as kid is represented by a wooden shelter, made out of planks and two children sized mannequins – one bigger, one smaller standing inside with baseball hats in different colors. The same location is revisited later with this time a single mannequin representing the main character lying on one side and surrounded by empty bottles.

-Differently arranged work desks and the various amounts of documents and empty cups on them tell of the "always the same, yet slightly different" work days the character had to go through again and again.

-A mannequin with a black female wig is supported in a "relaxed" manner on a tree, with the mannequin of the main character placed closed by and slightly tilting forward to suggest a kiss.

Another Environmental Storytelling dynamic would be the environment transforming based on player actions- As the player picks more and more "collectables" the game levels become more and more devoid of personal objects, as it gets filled with randomly spawned bottles instead.

Lastly to once again establish a feeling of negative progression and descent the Lighting of the ingame space gets progressively darker starting from gray, moving to dark brown and total black in the last sequence of the game, as both the player and the character descent further and further into realization of the mistakes made. Also the directional light of the first level as well as the point light attached to the players themselves are intentionally over-exaggerated to create a slightly irritating effect of overly bright vision, normally experienced during hangovers.

6.2.3. Expanded Socio Cultural Background

Deconstruction's main use of E.S.C.B to provoke critical reflection is its very core - dealing with a topic such as alcohol addiction. As the most prominent form of substance abuse in western countries[88] it is a social problem of a scope that makes it very easily relatable. Almost every individual has an individual in their family or friend circles they either suspect or are aware of having an alcohol problem.
The prominence of alcoholism and its effects on a person's life have been a recurring topic in human art and culture in all forms ranging from poetry to contemporary TV series.

The other E.S.C.B. component Deconstruction relies on for its affective potential is the notion of "Near Death Experiences". A rather prominent in topic in media, such experiences and character episodes are commonly depicted via very limited and clear set of visual symbols – abstract environments, white/gray colors, moments of lonely reflection, "journeys back" to individual memories and cathartic moments of realization. Deconstruction's identity as a player experience is heavily based on these easily recognizable themes from western media and audience expectations regarding those.

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[88] **Jernigan, D. H.** (2001). *"Global status report: alcohol and young people"*
Geneva: World Health Organization.

"Deconstruction"[89] as a name also carries its E.S.C.B weight and could lead to the emergence of critical gameplay, referring to the post-modern philosophical and psychoanalytical practice of "deconstruction". Derived from the philosophy of Jacques Derrida deconstruction is the act of constant reflection and elaboration on a problem – relating a single event or problem to an entire network of phenomena that have caused it, until the individual reaches the very core of the problem's meaning and finally faces its root.

6.3. Consequences in Deconstruction

Surprisingly even to myself in the process of identifying the various angles to presenting consequences towards generating critical gameplay, in a way Deconstruction utilizes all six of the approaches to consequence identified in Chapter 4.

6.3.1. Direct and Indirect

In order to reinforce the dubious nature and benefit of the collectables the player is initially encouraged to pick, several feedback mechanisms are used - a small movement speed delay, a white out of the player camera and a screen shake happen every time the player picks a collectable – This negative effect increases over time the more collectables the player gathers and is placed in order to provoke player reflection on the nature of the collectables.

Paths opening and closing, platforms changing their positions and new memory segments becoming visible to players – these are also direct consequences, even if not targeted towards critical gameplay.

Indirect consequences are of course the changes in the environment the player does not notice – the slow disappearance of environmental detail – the appearance of more and more bottles and the intensity of the final game sequence – all these are not clearly communicated to the player as resulting

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[89] **Derrida, J., & Caputo, J. D** (1997). *"Deconstruction in a nutshell: A conversation with Jacques Derrida"* Fordham Univ Press.

from their act of "collecting". This process aims towards provoking critical gameplay by establishing a parallel between the player and the player character not being able to connect the slow deterioration of "their world" to their own action.

6.3.2. Immediate and Delayed

The Immediate and Delayed consequences in Deconstruction are largely based on the player act of "picking up collectables" activity, and as such are similar in nature to the Direct and Indirect.

The transformations of the game world as well as the direct effect on the player as they pick a collectable are the only immediate consequences given. The various texts resulting from interacting with the environments as well as sound cues are also intended as immediate consequences capable of producing player affect.

On the other end the slow transformation of the environments over time as the players collect more and more, as well as the intensity of the final game sequence would be the prime delayed consequences. The gradual decrease of player speed and movement control when "under the influence" would be the other delayed consequence used to provoke critical evaluation.

6.3.3. Chronological and Parachronological

Similarly to *Dear Ester*, Deconstruction's entire gameplay experience is a Parachronological consequence of the player character's actions, as it is an act of retelling and a re-evaluation of actions already taken before the beginning of the player involvement in the game. Deconstruction was conceived as "a game experience about choice, in a moment when all choices have already been made" and can't really be changed – it's critical weight exactly in the Parachronological presentation of actions and the player characters gradual realization of their importance.

All other consequences of player actions are chronological. However as the act of picking up collectables in order to proceed is also in a way parachronological as it is set to mimic and support the

already established player characters actions of abusing alcohol as means of dealing with their problems in life.

Thus even if currently taken and chronologically presented, the player actions feed into a loop together with the parachronological consequences already established, creating a game experience similar to a purgatory, as represented in popular culture – an endless cycle of repeated error. Deconstruction is a game in which the players experience the consequences of character actions they can no longer change, but at the same time they get to repeat the same mistakes without realizing it.

6.4. Player Consent in Deconstruction

The prime means by which Deconstruction utilizes Player Consent as a chance to generate critical gameplay is the Accumulative Gameplay Behavior of players gathering the collectables and the effect this has on both the player character, the environment and the final sequence.

Gameplay Mimesis also plays an important role in Deconstruction as the gameplay of player compulsion to collect and the resulting changes in the game are utilized as an interactive metaphor for the character's addictive behavior and the consequences collecting has - both immediate and delayed – are intended to establish a similarity to the deteriorating effect of alcohol addiction on the character and the world.

Demanded Action is used, as the players do not have a choice but to pick some of the collectables (not all are needed) in order to proceed, but that is secondary and done in order to reinforce the Gameplay Mimesis.

As mentioned earlier Deconstruction is a game "about Choice without choice" – The player is free to collect or not the optional collectables but that will not change the final outcome of the game – only

the intensity of the sequence. The lack of Player Choice in the sense discussed in **Chapter 5.2** was a conscious decision based both two factors. First the lack of choice serves to reinforce in the player notion of the game being a perpetual purgatorial state and thus potentially lead to critical reflection on the severity of the events and choices that did eventually lead to the play character's state.

 The second reason is actually the overuse of binary choices (directly or via Accumulative Gameplay Behavior) to change the outcome in currently released digital games, to the point that they have become expected by players. As a branching ending is thus "the norm", the lack of one actually serves to create slight shock and increase affective value.

CHAPTER 7: CONCLUSIONS

7.1. Why Deconstruction?

Deconstruction is intended to serve not only as an exploration of the principles of Critical Gameplay Design, but also as an attempt of utilizing both the ludic and representational layers of a game as tools towards affect. Its main purpose is to be a demonstration of how the idea of a game can be equally divided in its presentation to the player via the design of both the mechanical and representational properties of the game.

Deconstruction's story – the character's journey down and his actions are explored via gameplay and do not exist separately or- even worse- as a contradiction between the logic of the fictional world and the game system logic. The level design and environments are similarly intended to serve both as facilitators of interesting, challenging and engaging gameplay, as well as a spatial and visual metaphor for the character's state of mind.

The final goal of Deconstruction is empathy and consideration – to establish in players understanding of the character's actions and situation, not simply by telling them what happened but by letting players re-experience it via their own actions and the situations they have to deal with. Due to time constraints no proper qualitative research was done to see weather Deconstruction succeeds in this final goal or not, but initial player testing and feedback already confirmed the games ability to both engage players mechanically and generate affect - especially via the use of Narrative Architecture and Environmental Storytelling.

Finally the production of Deconstruction itself aims to point out the feasibility and accessibility of designing for player affect. Being made in 4 months by a single developer, the game, as well as other titles explored in this thesis show that developing games capable of generating critical experiences for their players is not a matter of time, budget or manpower. The techniques can be easily applied by a single developer on an independent project, as well as by a large development team on a commercial

title. Thus I would like to point out that Critical gameplay Design, as well as designing affective experiences for players in general, is a matter of awareness and understanding on the side of the developers and their ability to utilize the natural affordances of a digital game both as an interactive and representative medium.

7.2. Why Critical Gameplay?

Even if it started as a small course project, from the very beginning of its development, Deconstruction and the attempt to define Critical Gameplay were motivated by a very clear goal which was both design motivated, as well as personal – elaborate and identify the design practices that resulted in my own personal fascination with games and their potential for generating player emotion.

As a player, even before becoming interested in game design, there were always moments in my personal game experiences, which managed to strongly compel me and provoke me in various ways – These games or particular moments in them did not simply cause impulsive outbursts of emotion, but resulted in a profoundly deep feeling of emotional investment, interest and consideration of the significance of the experience, as something that held meaning outside the scope of the game. Most importantly these moments of gameplay affected me as a player in a way no other works of art or media have managed – it is that exact player state of mind that I have identified as "Critical Gameplay". Understanding what aspects of a digital game as a design artifact are most likely to provoke such experiences in players is a key to the creation of a successful and memorable game experience. This thesis tries to explore and identify the underlying similarities in the design between various digital games aiming to create such critical experiences for the players on the semiotic level.

By grouping these aspects of game design into the practices of Building Context, Presenting Consequences and Using Player consent, this thesis is meant to serve as the foundation for an "affective tool kit" of approaches and techniques game designers can use.

Only by understanding exactly how and why players are affected by games and what are the aspects that provoke this affect we can come to understand and intentionally design them – thus turning digital games into an effective tool not only for recreation, but also –an expression of the designer's position of various issues their game might deal with.

It is my belief that in order to understand the means by which digital games create critical gameplay and generate affect, we should look beyond the complex structures of the experiences themselves. We need to go down to the level of the design of the individual, tangible aspects of the game segment and its various elements and see how they are "rigged" – consciously or not – for affect.

By identifying the commonly used practices behind the design for affect, we can then finally translate these basic considerations into guidelines for our own projects and begin designing game experiences that use the full potential of games as a media in general and are not locked somewhere between the system-driven minimalism of "games=fun" or the mess of the ludo-narrative debate.

Naturally identifying all the possible "affective channels" that we can use is a task that over exceeds the scope of a master thesis. The three practices I identified and explored, however seem to be the most commonly used means as well as the most easily accessible ones to take directly into consideration when crafting the player experience, either in the design of the game mechanics, levels or environments.

Obviously the role of mechanics for affective design, which I already discussed in Chapter 2 is the other half of the equation when it comes to player emotion and generating memorable experiences. When crafting a game the natural design prerogative is always thinking of a digital game as a form of recreation, relying on the players learning, mastering and executing mechanics in order to solve problems and reach goals. The ludic affect has been pushed in the background in this thesis, simply due to the sheer scope of the problem even on its own terms. However for a game experience to be truly valuable it needs to utilize its ludic and semiotic affective means on equal grounds.

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