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Dead space 2: The sublime, uncanny and abject in survival horror games

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Dead Space 2: The Sublime, Uncanny and Abject in Survival Horror Games

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Figure 1. Visceral Games, Dead Space II, game cover, 2011.
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Introduction

"There was a well-placed crowbar at the bottom of the stairwell and for a moment I felt lucky. When I turned around that feeling left me, there was one of those things at the end of the corridor. It was standing still, watching me."

The Dead Rule the Day, Rebecca Carter (2011)

Horror is one of the most successful genres in video gaming, this is largely due to the interaction between a virtual environment and the stimulation of powerful emotional responses, which form an important part of the gaming experience. In survival horror games such as *F.E.A.R* (2005), *Bioshock* (2007) and *Silent Hill 2* (2001) emotions relating to self-preservation are often provoked, where fear and anxiety are experienced and acted upon without the constraints of reality. Fear and wonder are essential in evoking the sublime (Burke).

In literature, film or theatre, the spectator has the pleasure of vicariously experiencing empathetic emotions orchestrated by the director and actors. The spectator is unable to influence character or contextual outcomes. However in computer games the gamer has the ability, or rather the illusion of the ability, to influence and therefore exert agency on the narrative. If a gamer feels that they can influence the narrative, he or she may become subjectively immersed, not only into a narrative role of adventure but also, as this research argues, intimately engrossed into the abject horror. Computer gamers demonstrate many synergies with the experiences of that of a horror film viewer.

In this paper I will use *Dead Space 2* (2011) as the digital platform to explore the artistic elements of gameplay. The themes which I engage with in the case study, range from psychology, philosophy and literature. I will discuss why the sublime, the uncanny and the abject are important elements in the sublime-horror experience. *Dead Space 2* was chosen as it in many ways exemplifies the horror game genre.

Horror Genre

The success of horror computer games has influenced, and been influenced by a broad range of media including film, literature, animation, graphic novels and print media. Video game franchises such as *Doom* (1994 - 2012), *Quake* (1996 -2011) *Resident Evil* (1998 – 2015) and *Silent Hill* (1999 - 2012) include multi-media adaptations ranging from graphic novels through to feature films. Horror films and games require essential characteristics to be present which elicit emotional attachments of the viewer and thus ensure some type of a response. There are two key elements that facilitate success, the seeking out of the sublime within the horror genre and a morbid fascination of the abject (Bushnel) .

In *Atari, Rise of the Video Game* (2007), Nolan Bushnel – the founder of Atari states,

> "Video games are not just art but culture - they are creativity. They represent in many ways a more complex structure than a good movie would. They allow for another form of immersion compared to that of a film or a horror novel."

This sentiment is expanded by Henry Jenkins, director of Comparative Media Studies at Massachusetts Institute of Technology in the U.S.A.,

> "I think video games are expressive and a representative art form. They represent our beliefs, our attitudes, and the kind of core questions that we are struggling within a particular point in time" (Jenkins).

Video games have developed alongside a rapidly changing social and technological environment. The advent of digital technology and the rise of a sedentary lifestyle and how this lifestyle eliminates certain emotions, is an important consideration with our interaction with video games. In industrialised societies, evolutionary instincts and emotional responses are no longer regularly utilised for physical survival. However, gamer interaction with computer games, specifically within the horror genre, may activate highly emotional responses and excitement related to simulated survival (Jenkins).

'Dead Space 2'

The case study game selected, *Dead Space 2*, begins with the gamer[1] playing the role of Isaac Clarke, a man with no memory of the past three years. He finds himself in a psychiatric institution on the Sprawl, a densely populated metropolis built on a shard of Titan, the largest of Saturn's moons.

The gamer controls his or her avatar,[2] Isaac Clarke from a third-person perspective that looks over the character's right shoulder. The gamer must demonstrate a specific set of skills including visual accuracy, resource management and problem solving. Isaac must survive by upgrading his resources. As in *Dead Space 1* (2008), the character uses a Resource Integration Gear (RIG) suit which uses an augmented HUD[3] system that projects interactive holograms from Isaac's suit.



Figure 2. An augmented video call with one of the characters in-game.

During game play, Isaac encounters a number of characters that make contact with him through his RIG, this is depicted in figure 2. Isaac's RIG can be compared to a

[1] The general use of the term 'gamer' means a player or user of video games.
[2] 'Avatar' refers to the graphical representation of a computer user through either a 2d graphical image, such as an icon on an internet forum, as a digitised 3d model.
[3] HUD stands for Heads up Display, originally used in modern aircraft, it is a visual display in the games user interface. It can display anything up to a gamer health, maps or ammunition count.

video call on Skype or a Google Hangout. Another example of this can be likened to Google Glasses, where digital-images are augmented into the real world. In *Dead Space 2* the gamer is shown information projected from the weapon such as the ammunition count (figure 3).



Figure 3. Health, stasis module and HUD display on the gun and back of Isaac's suite.

During game play there are moments in the game where various areas lose oxygen, for example a plane that loses cabin pressure. A countdown timer appears on Isaac's right shoulder displaying how much time he has left before his oxygen runs out (refer to video clip 1). The RIG has gauges on Isaac's back (figure 3) that display his health and the stasis module levels. The augmented RIG is a powerful diegetic device in the game that helps bring the gamer closer to the illusion of the "reality" of the game. Rather than having a HUD cluttering the screen, the information is within the mise-en-scene of the game.

Visceral Games, the creators of *Dead Space 2* create a sense of claustrophobia and dread throughout the game, using high-key lighting, blood, gore, cinematic cut-scenes and the occasional distortion of perception as Isaac slowly succumbs to his dementia. Narratively the game borrows heavily from science fiction films such as *Alien* (1986),

The Thing (1988) and *Event Horizon* (1997). Through filmic techniques, *Dead Space 2* successfully blends visceral close-combat fighting with psychedelic abnormalities in its diegetic interaction. Consequently, the game facilitates unease of the gamer, while compelling him or her to move forward through its linear landscapes.

Methodology & Structure

The study consists of an introduction and clarification on language and terminology, followed by three chapters and a conclusion. Chapter One deals with the narrative structure, examining how particular narrative techniques, if used correctly can induce feelings of sublime. I include narrative ideas referenced from Greek and Roman mythology. There is also a comparison of artists such as Goya and the parallels such artists have had on current and modern art and gaming.

In Chapter Two the Freudian 'uncanny' and Kristeva's 'abject' are linked to the monster, this chapter explains the opposite affect that the designers were aiming to achieve by means of the *uncanny valley*. Instead of convincing the gamer that the monsters are real, they become polygons and textures, ultimately disinvesting the gamer from the game.

Chapter Three focuses on the technicalities of lighting design that adds to the sublime experience by use of particular horror film tropes. Where Chapter Two engages with where the case study failed to sustain horror. Chapter Three examines an area in which the game succeeds in creating a sense of both the sublime and horror through the use of good lighting techniques.

Information has been gleaned from academic and popular sources across a broad field of media and literature such as books, audio books, digitised lectures, websites, videos, research studies, video games, as well as my own subjective personal experiences as a professional digital artist, professional photographer and gamer. A portfolio of my work can be found at this link https://www.behance.net/roache7. Video clips of the gameplay and screen captures provide a visual reference to describe specific details about the characters, lighting and scenery.

Clarification of Terms

Gamer

A player or user of video games.

Game character

A game character is a playable character within a computer or video game. A user or player of the game controls the character in the game. In a gaming context, a character is a part or role played by the user or player of the game. The character usually has some kind of history; certain traits and features of the particular game character can reveal certain details of the role being played. The role, which is accompanied by a narrative background, allows users to become emotionally invested in the outcome of the game. They vicariously 'assume' the role of the protagonist. A game character can also be based on a real person, for instance a sportsman or woman, a historical figure, and in some cases, real actors.

Avatar

In the context of computer technology, the term avatar is a graphical representation of a computer user through either a two dimensional graphical image, such as an icon on an Internet forum, or a three dimensional graphical representation in a computer game or any other virtual environment. The term avatar means an embodiment or personification, thereby making the graphical image a more personal projection of one's ego. From a psychological point of view the concept of an avatar goes far beyond just a graphical representation. In some cases, the avatar is a purposeful projection or idealization of one's own identity. Through this projection of identities, experimentation of different personalities could follow.

In Hindu philosophy, an avatar is a reincarnation of a god. With this in mind, some gamers hide behind avatars believing themselves to be actual gods in their virtual paradigms. In other cases, the avatar is merely used as a pawn and controlled by the gamer as a ‘god.’ Through this experience, gamers are able to justify their own personal glorification through their avatars.

Art-Horror

According to Noel Carroll in his book *The Philosophy of Horror* (1990) there are two

types of horror, natural horror and art-horror. Natural horror can be related to an event that one would find naturally horrific, such as what the Nazis did to the Jews or the horrors of a natural cataclysmic event such as the killer tsunamis in Thailand or more recently Japan. Whereas art-horror is considered by Carroll to be emotionally moved by a fictional monster that defies our understanding of the scientific world (Carroll).

Mise-en-scene

Mise-en-scene is a filmic description used to describe all of the visual design elements that falls within the frame of the scene in either theatre or film.

Chapter 1 Sublime within Narrative and Mis-en-Scene

The sublime is a quintessential element to gaming, because it motivates the gamer to seek out emotional dichotomy and provides motivation to complete the game. This is an ideal situation for game developers, as it leads to positive feedback for the game and customer satisfaction.

Edmund Burke, a statesman, author, orator and political theorist said, the term 'sublime' reaches to the extremities of human emotion. As a literary concept, Burke in 1757 used the term sublime to describe anything that elicits emotions of pain and danger, anything that is terrible or operates in a manner in which terror operates (Burke). When discussing the semantics of the sublime, there needs to be a perception of the impact of awe and the crisis induced by fear. By its very nature, the sublime is by no means simple to explain or examine and therefore for the remainder of this chapter I will investigate and analyse it in greater depth.

Isaac Clarke, a former engineer and the protagonist of *Dead Space 1* (2008), awakes to a nightmare in a hospital ward. Isaac is the last surviving member of a team that was sent to retrieve the planet-cracker[4], *USG Ishimura*, shortly after communication with the spaceship was lost.

In the opening credits of the game we see a video transmission between Isaac

[4] 'Planet Cracking' is a term used to describe the literally splitting open of a planet that is to be mined for valuable resources. A large chunk of the planet will be broken off and brought on board a 'Planet Cracker' class ship via gravity tethers. Where it is then stripped and its ore content is studied.

and his girlfriend, Nicole Brennan as she was when she was still alive on the spaceship *Ishimura*. This is an attempt by the game designers to fill in some of the missing narrative details to those new to the *Dead Space* trilogy and to serve as a reminder to those who previously played *Dead Space 1* (2008). As the transmission ends the camera dolly's back and away from the video transmission over the right of Isaacs shoulder. Revealing what on first appearance looks like a doctor or a psychotherapist questioning Isaac on what happened on the *Ishimura*, as Isaac is being questioned he begins to have hallucinations of Nicole. This scene is the gamer's first clue that Isaac is suffering from some form of dementia. Nicole, covered in blood climbs on top of the table where Isaac is sitting and screams at him, "make us whole!" The scene then cuts to a bright light as Isaac is woken up to torchlight in his face. The man waking him up is Franco Delille,[5] who is urgently freeing him from restraints in a hospital bed. A female voice over Franco's RIG link reveals that Isaac has been unconscious for some time. We learn that he has spent the last three years in a state of "stasis,"[6] after being confined to a mental institution on the Sprawl. Isaac is alive, but suffering from Post-Traumatic Stress Disorder and being haunted by hallucinations of his dead girlfriend (video clip 2).

The Marker and Goya

Throughout the game there is an omnipresent 'character' known as the Marker. The Marker or Black Markers[7] (figure 4) is an alien artefact that was discovered on Earth in the year 2214 by a man named Michael Altman. The Markers originate from an extra-terrestrial source placed inside of asteroids and sent out until their eventual impact on any planet that comes across its path. The Markers serve as an emitter through the use of an electromagnetic signal that compels sentient beings to create more Red Markers (copies of the original Marker) and lead to reanimating necrotic tissue into Necromorphs. Necrosis, which in Greek means to be the literal phase of death or the act of killing. In today's terminology the Medline Plus Online Encyclopaedia (a medical encyclopaedia) describes necrosis as a type of a cell injury that results in the early death of a cell in living tissue by destroying itself through the

[5] Franco Dellile is the protagonist from the game *Dead Space: Ignition (2010)*, sent to help Isaac Clarke escape in *Dead Space 2*.

[6] Stasis is a field of science based on quantum physics. The Stasis Module is used to temporarily slow down time of all objects in motion, be of it organic or inorganic material.

[7] It is later discovered there are many more of the same Markers scattered around the universe.

action of its own enzymes called autolysis. Necrosis is caused from external factors such as the likes of toxins, infections or through some kind of trauma. In *Dead Space 2*, the ultimate purpose of the Marker is to create a Necromorph infestation. By spreading an alien infection that reanimates dead cells and leads to the eventual killing of all life on the planet. By emitting its electromagnetic signal, it guides and teaches forms of life into a civilization thus forcing the evolution of certain kinds of sentient beings. Its eventual purpose is to guide civilisation to grow in numbers and lead to over populating the planet. By overpopulating the planet the species depletes all forms of available energy.



Figure 4. The Marker.

Awaking to a Nightmare

The hallucination described in *Dead Space 2* is similar to hallucinations that have been depicted in many other narrative forms, including the famous work of Francisco de Goya.



Figure 5. Francisco de Goya, *The Sleep of Reason Produces Monsters* (1799)

This research report aims to make clear the numerous examples where gaming shows parallels to historic works of art. Like all of the arts, gaming draws heavily from other such influences of arts, psychology, mythology and literature. Here, the visual imagery of Isaac's hallucinations could reflect work like artist Francisco Goya's etching *"El sueno de la razon produce monstrous: The Sleep of Reason Produces Monsters* (1799), (Figure 5).



Figure 6. Isaac wakes up to a living nightmare

Francisco Goya's etching "is said to be a self-portrait of the artist surrounded by demonic-looking animals." (Hughes) an Australian born art critic, television producer and writer proposes that the "monsters" are bats and owls flying around Goya in his dream. Robert Hughes suggests the owls do not represent wisdom; but rather 'the stereotype of mindless stupidity', which apparently was how owls were considered in Spanish folklore during Goya's time. In *Dead Space 2* the owls could be a representation of the lesser intelligent beings of the said civilization's. They are the first to succumb to worshiping the Marker but also become the first to be infected by the Necromorph infestation. Similarly, Hughes suggests the bats are "creatures of night, and thus of ignorance and possibly of bloodsucking evil as well, in their association with the devil" (Hughes).

Isaac Clarke can in some way be depicted in the same situation as Goya. Clarke is surrounded by the 'monsters' as the Necromorphs. Which can fit the mindless stupidity in which they are trapped. The owls and bats are balanced by the watchful lynx (the 'all-knowing' Marker), as a creature that 'could see through the thickest darkness and immediately tell truth from error' (Hughes).

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Professor of Philosophy, Richard Kearney suggests two different meanings based on the dream/sleep debate of Goya's painting.

> "Firstly, reason must govern the imagination', it must be watchful, otherwise the 'forces of darkness', will be 'unleashed on humanity'. Alternatively, a more romantic approach is that the 'rationalist dreams' promoted by the 'Enlightenment' are just as capable of producing their own 'monstrous aberrations'" (Kearney).

Goya's *Black Art* period was satirical. It reflected his view of Spanish society, which he portrayed in the *Los Caprichos* (set of 80 aquatint prints of which this was one) as demented, corrupt, and ripe for ridicule. Within the context of the game the Marker is the cause of the dementia that Isaac and the rest of the colony is experiencing. The dementia and ridicule can be linked to the population of the Sprawl succumbing to greed as the Marker sends out a signal causing dementia, eventually turning the populace into "Necromorphs"[8] (Figure 7). This critique of greed follows a similar pattern to satirical artworks, including Goya and Swift (in *Gulliver's Travels).*

Diane Carr in her article 'Ability, Disability and Dead Space' (2001) addresses the Isaacs dementia here she says:

> "These un-dead monsters in *Dead Space 2* (2011) could pass as metaphors of scientific arrogance or medical transgression" (Carr).



Figure 7. Concept art of the Necromorphs.

[8] Necromorphs are monsters that are made up of a variety of conjoined human and animal body parts.

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The game also caters for those who are interested in a subgenre of horror, known as ‘gore horror’ or ‘splatter horror.’ If Isaac Clarke fails to complete a task or is overwhelmed by Necromorphs, he is killed in a variety of gruesomely animated sequences. Carr has highlighted the element of gore horror in her description of the elements of the game. “Despite being wrapped up in a layer of high tech second skin, the protagonist Isaac Clarke has constant problems maintaining a safe distance between his insides and whatever is outside” (Carr), (Figure 8).



Figure 8. One of many of Isaac Clarke’s death scenarios.

Isaac's escape from the hospital provokes numerous questions from the gamer. Bound by a straitjacket, Isaac’s first words are echoed by the gamer “Where am I?” But answers are denied as a would-be saviour is brutally slain by a re-animated, recombinant human corpse, described earlier as a Necromorph. The gamer, like the character, is left to deal with the situation alone, to abandon questions and rely on self-preservation instincts to escape, forcing the identification between gamer-avatar identities.

Isaac is urged by a voice on Franco’s RIG link to “run!”. Sprinting from the hospital ward, he averts attacks from all possible angles, eventually making his way towards an open elevator door at the end of the hall. The momentary sense of relief he feels as he reaches the door is lost as he is knocked down by a Necromorph. In the horrific and graphic escape that ends the sequence, he manages to kick the monster

off of himself, as the doors slam close, decapitating the monster (video clip 3). Isaac must now navigate an eerie cityscape to discover what has happened and if he might survive the Necromorph outbreak. From this example, the gamer is exposed to emotional highs and lows which in turn motivate the gamer to finish the game and resolve the emotional turmoil that the gamer has been exposed to.

It is by the identification of the real person (the gamer) with the character that we have our first perception of the sublime (Burke). Through fear of death and mutilation, the gamer experiences a momentary loss of self and vicariously 'becomes' Isaac Clarke as the game forces the gamer to desperately save Isaac Clark and therefore the need to save the gamers 'self' is induced.

The Sublime

Edmund Burke says "The sublime is an idea belonging to self-preservation [and] is therefore one of the most affecting we have. That its strongest emotion is an emotion of distress, and that no pleasure from a positive cause belongs to it" (Burke).

Although the sensations of the sublime can be very similar, the primary focus can differ in its significance. Different philosophers vary between two very separate ideas. It seems that there is an overall understanding amongst scholars that the first idea is to be moved by an extreme feeling within oneself, or of an emotional transcendence, a moving beyond our limitations of our human existence, whereas the second is an analysis of an aesthetic experience or a sense of awe (Leffler).

Yvonne Leffler, a professor of Comparative Literature, at the University of Gothenburg in Sweden, draws from John Dennis's writings in *The Grounds of Criticism in Poetry* (1704), on the importance of horror within a sublime experience. Dennis argues that what arouses terror is the perceived idea of 'good' turned 'bad'; "Most terrifying of all is an angry god" (Leffler). To Leffler, a sublime experience is either through religious or supernatural phenomena. The Marker is eventually seen as small thread of a master plan to consume the entire universe. As it slowly succumbs to a virus at a universal scale.

On the other side, Cat Francis in her article, 'The Virtual Sublime' (1999) says: "that the self, confronted with something larger and/or more powerful than itself, fears annihilation. But even as the self cowers in the moment of that threat, it

becomes aware that the threat is an empty one, that the annihilation will not take place" (Francis).

Many examples have been used to describe this notion of the sublime, not surprising given its abstract nature. The giddy ride of a roller coaster, skydiving out of an airplane, or rock climbing. One misplaced foot, a hold breaking off in your hand, and the climber falls several feet below the last anchor of safety, sometimes two or three pieces of gear tear out of the rock, before one piece eventually holds. With a jolting halt, the gear and the rope prevent the thousand-foot fall below. In that moment when the self becomes aware that the threat is over, there is a sudden rush of overwhelming pleasure.

Gur Hirshberg writes in his article "Burke, Kant and the Sublime" (1994) that the sublime is most often associated to a sensual pleasure, such as a sublime piece of music or a sublime kiss. He says that when distress is experienced, it is only because the sublime experience has ended and not because we perceive distress as part of what defines that moment (Hirsheburg). One might challenge Burke's claim of the sublime by arguing that his association does not go beyond his own subjective experiences. However, in Immanuel Kant's *Critique of Judgement* (1790), he says that Burke's approach towards the sublime is that of empirical psychology, whereas Kant's approach is more philosophical.

> "Empirical psychology,[9] will hardly ever be able to claim the rank of a philosophical science, and probably its only true obligation is to make psychological observations (as Burke does in his work on the beautiful and sublime), and hence to gather material for future empirical rules that are to be connected systematically, yet to do so without trying to grasp these rules" (Kant).

If we take in account both notions of the sublime in art-horror, one of which is being moved by extreme emotional qualities and the other is being moved through aesthetics in horror, we find that we are in need of both fear and awe to transcend ourselves. I postulate that only when we have come back to our more regular, or less heightened senses, are we able to affirm that we have experienced the notion of sublime-horror.

[9] Emperical Psychology is a study based off experience or by experimentation and observation rather than through theory.

The Cosmic Void & Sublime

"Of all things the measure is man, of the things that are, and of the things that are not, that they are not" Protagoras of Abdera (ca. 490-ca.420 BCE).

> In the beginning, there was violence. There was noise. An explosion. A big bang. In the beginning, physicist Stephen Hawking tells us, the universe had zero size and was infinitely hot. Within one second of the big bang, about 14 billion years ago, temperatures began plummeting but it was still very, very hot. This destruction, this explosion, and the chaos of temperature was necessary for the creation of what we know, and don't know, our present and the pasts that we explore (Smith).

The cosmic-void, space, was created by a violent eruption that continues to expand through infinity. Burke writes that, "Infinity has a tendency to fill the mind with that sort of delightful horror, which is the most genuine effect and truest test of the sublime" (Burke). It is infinite that inspires a sense of wonder and has been used as the setting for many video games, because infinite itself prompts feelings of horror. This horror is also known as agoraphobia which means to have a fear of wide and open spaces

Kant, who's *Critique of Pure Reason* (1781) was a seminal work of philosophy, divides the sublime into two parts: the mathematical and the dynamical sublime. The mathematical sublime is when the dimensions of something are so large that the imagination cannot conceive of it. Since the mind is unable to comprehend the infinite; our imagination compels us to think of the object as a whole. According to Kant, the dynamical sublime is when we appreciate the lethal power of natural forces from a place of safety. In *Dead Space* 2 Isaac is experiencing both the mathematical and the dynamic. Working within the mathematical, we are focused on the measure of things, within a scale, as a mouse is to a mountain. There is a persistent boundary to our experiences, even when standing in an open field we are still bound by the horizon, which to our minds holds a shape or form. Isaac finds himself within a sprawling city on Titan, the largest of Saturn's moons with thousands of people, who are now mostly Necromorphs, lurking around every darkened alley.

Boundaries are limited to our visual experience and where we cannot perceive infinity, our imagination tries to fill in the empty space of the infinite void. When we are faced with the vastness of the cosmic the self can become 'offset' (Francis).

“Despite the immensity of the mountain, the magnitude of the mathematical, the self manages to convince itself that its finitude is not in fact really finite, since by holding the idea of such vast things within itself, it also partakes of that vastness” (Francis).

In the case of the mathematical sublime, there is displeasure in the insufficiency of our imagination and in the dynamic our weakness is apparent in the face of natural forces. Ginsborg’s article relates this through Kant’s description of pleasure, he describes it as a fluctuation between repulsion and attraction. The pleasure derived from the sublime requires first displeasure or a negative liking (Ginsborg). In the game, this negative liking is what drives the gamer forward in a wish to confront through the games narrative.

A Manifesto for Cyborgs

This section discusses the various realms that are presented in horror-games and how these realms in video-gaming is a place of hopelessly blurred boundaries with a demanding criteria. In the *Critiques of Judgement* (1790), Kant suggests three realms: one of empirical knowledge, the second of reason or logic, and the third that of aesthetic judgement. The realm of judgement manages to mediate between the first two. In that realm the subject and object interact in a way which is not empirical, but borders on it: the viewpoint of the subject somehow bringing the objects it perceives to presence, and in that process managing to describe its own existence. This is Kant's aesthetic fiction; that in the act of judgement, subject and object are unified. In the realm of judgement, the thought, which is not a thought, the paradox of judgement occurs. This is the realm of mixed pleasure and pain, a sadomasochistic mixture that produces a notion of sublime-horror

Pleasure in beauty is simple joy but the pain when we realize how inadequate (reminds us of our limits. The sublime is not something that is simply beautiful, but something exceptional. The sublime may inspire horror but pleasure and power are present when we know that the horror is a fiction (Burke). It has traces and intimations of excess, and suggests patterns rather than facts. Cat Francis in her essay ‘A Manifesto for Cyborgs’ (1985) cites the breakage of such boundaries as pleasure. Yet such breakage is accompanied by panic: if the boundaries are not there, then where is the self? Does it lie in the body or the mind or in some realm in between?

The pleasure of shattered boundaries becomes mixed with the omnipresent fear of annihilation: can the self-exist if one does not know where and when it is situated? Cat Francis quotes Donna Haraway in her article and theorises that the figure of the cyborg is as an entity of the twentieth century, "a figure in which traditional boundaries break down, melt and slide into each other, becoming 'leaky distinctions'" (Francis). She elaborates on three sets of boundaries: those between organism and machine, those between animals and humans, and finally, the boundary between body and mind, or physical and nonphysical.

The collapsed boundaries are reflected in the augmented body of Isaac as well as in the fragmented bodies of the Necromorph. This breakdown of lived experience into an altered fantasy has a direct impact on the gamer. The gamer loses perceptions of reality, the sublime tells the mind that what it is now experiencing is real. The boundaries of reality and the digital realm meld, resulting in the gamer experiencing sublime-horror as a virtually real experience.

Rationalising infinity

In addition to the mind's attempts to rationalise infinity, Burke also speaks of the artificial infinite: where visual or psychological effects cause us to extend the boundaries of what we observe indefinitely (figure 9). He says, "Whenever we repeat any idea frequently, the mind, by a sort of mechanism, repeats it long after the first cause has ceased to operate" (Burke).



Figure 9. Isaac Clarke looking out onto The Sprawl.

After intense, sustained encounters with Necromorphs, the view contemplated by Isaac not only impresses on the gamer the enormity of the situation (he is alone in a gigantic city in outer space) but also causes the gamer to consider the number of Necromorphs still to be faced within the city confines.

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The Influence of Art and Mythology

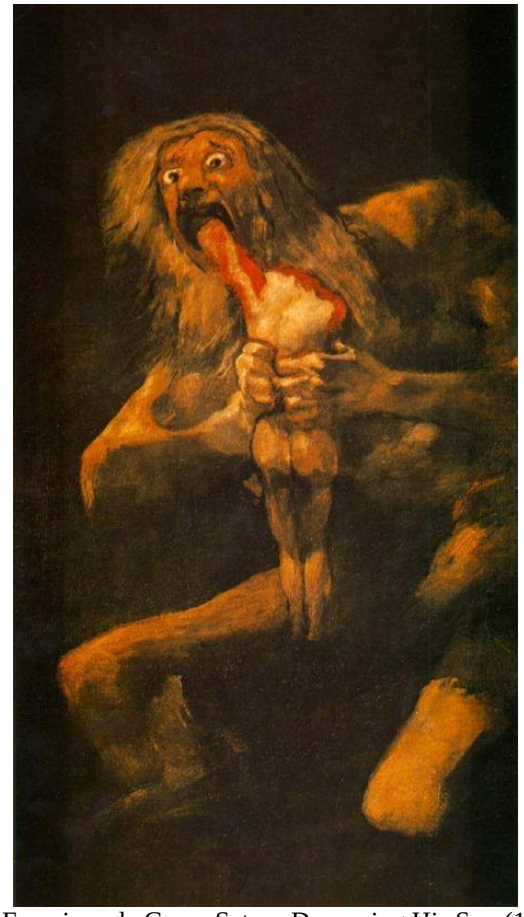

Figure 10. Francisco de Goya, Saturn Devouring His Son (1823)

Dead Space 2 is not only intertextually influenced by art but it is also filled with subtle references to Greek and Roman mythology. This intertextual reading is enabled in that the game is set on the largest of Saturn's moons, Titan because in *Saturno devorando a su hijo*, or *Saturn Devouring His Son* (1823) by artist Francisco de Goya (1746-1828), the monstrous body of a male (Saturn) devouring a smaller male figure (his son) (Figure 9). The image in (figure 10) is a memorable depiction of a cannibal god bent down on one knee, shrouded in darkness; a bloody arm leading the eye to the gaping mouth and finally resting on the haunted look of a madman. Jay Scott Morgan of San Francisco State University describes it in his article, 'The Mystery of Goya's Saturn', as "[a] work of such indelible power, it seems to have existed before it was created, like some deep-rooted, banished memory, inescapable as a nightmare" (Morgan). Although I postulate that there are subtle intertextual links

between Goya's art and *Dead Space 2*, I do not assume that it was the intention of the writers of *Dead Space 2* to use either Goya or Roman and Greek mythology as reference to the creation of the game. I merely point out that there is a similar theme in the narrative of the arts. According to the Hesiod's *Theogeny*, first came Chaos, then Gaia (Earth) and deep within the abyss of Gaia, - a place for the suffering of the wicked and a prison to the Titans - came Uranus/Ouranos (Sky). Born to Gaia and Uranus was Kronos, (Saturn) leader and youngest of the first generation of Titans. According to *Theogeny,* Kronos was jealous of his father Uranus's power over the universe. A prophecy was foretold that Uranus would one day be dethroned by one of his sons and fearing the prophecy, he took each of his children and ate them. Gaia, mourning the loss of her hidden children, plotted to overthrow Uranus by making a stone sickle to castrate him. Kronos was the only one of Gaia's children who would take on the task of defeating Uranus. Kronos waited in ambush, attacked his father and castrated him with the stone sickle, casting his testicles into the sea.

The rivalry between fathers and sons, including patricide and infant sacrifice, is a theme that is presented in *Dead Space 2* as can be seen in one intertextual interpretation of *Dead Space* 2. The Marker can be likened to Kronos. In order for the Marker to complete the 'Convergence Event', which is the final stage in the Necromorph infestation. Isaac must first kill himself or sacrifice himself to the Marker, resulting in the death of the entire population on Titan and the destruction of the moon. The human race (Gaia) take to the skies (Uranus) to colonize the largest of Saturn's moon, Titan (Kronos, the titan god). A mother and son join forces. Taking over power from his father, Kronos grew to be respected and powerful amongst the other gods.

The Titan king begins to devour not his children, but himself. In *Dead Space 2,* the human race has mined the moon to the point that there are now only the remains of a shard of the moon's (Kronos) former glory. The human race, the sons and daughters of Gaia, through self-fulfilling prophecy, have killed Kronos. In their greed to gain power, the human race replicated the alien artefact, the 'Marker' to draw on its power. Greed and corruption sets out to destroy.

The Marker sends out a signal causing dementia amongst the colony and is the cause of the disease outbreak. Just as Kronos destroys his successors by eating his

children, the human colony destroy the children's future by over mining and destroying our resources. This is an unsubtle reference to the exploitation of planet Earth by humans today.

Consumed by her grief, Kronos's wife (and sister) Rhea devise a plan to save her sixth son. She hides the infant Zeus in a cave and presents Kronos with a rock wrapped up in cloth that he immediately swallows whole. As Zeus grows up out of reach of his father, he plots his revenge by taking gifts of thunder and lightning to him. Zeus, gathers an army of gods and Titans that oppose his father in a 10-year war that was won by gaining help from the Hundred Handed Monster. Driving the Titans to Tartarus. Zeus then banished Kronos and took over the skies from his dishonoured father and became king of the gods.

It would seem that even the gods are unable to evade fate. It is fascinating then to see the parallels in *Dead Space* 2 where Isaac is confronted by monsters with unnatural body parts. Isaac**,** instead of killing himself he destroys the 'Marker' by reversing the signal, which draws all of the Necromorphs (Hundred Handed Monster) back to it, which in turn destroys the moon (Kronos)**.** Isaac however**,** is still human and does not have the powers of the gods, but certainly does seem to have them on his side as he alone takes on the Necromorph onslaught. This interpretation relies on an exterior perspective, which is just one of many possible readings. While this may not have been in the narrative designers conscious intentions the similarities allows for this comparison to be made, and offers an interesting broader cultural perspective on the work.

Pleasure and Pain

Early generations of video games, such as those from the 1980's, followed traditional game styles that emphasised ludic over narrative or emotional engagement, and where pleasure came from mastering the ludic system. In a game like *Tetris* (1984), the greatest pain was found when the gamer became overwhelmed by simple shapes. *Dead Space 2* on the other hand, involves immersing gamers into more narratively familiar 'pleasure versus pain' virtual reality.

Burke states that pain is a more powerful emotion than pleasure and that by

using the imagination it can be connected to terror (Burke). And so we find that while the appreciation of beauty stems from reason and reflection, the sublime draws on primal passions. It is impulsive and incomprehensible. Burke stresses the difference between the pleasure experienced upon the removal of pain, which he terms "delight," and that experienced directly through "positive pleasure," which, says is short lived. It "...quickly satisfies; and when it is over, we relapse into indifference, or rather we fall into a soft tranquillity" (Burke).

In Kristin Ann Zeich's Master of Arts Thesis *Early Goya and the Grotesque: A Study of Themes of Witchcraft and Monstrous Bodies* (Zeich), she writes of 'discreet boundaries' that are crossed when looking at Goya's work. Abject and grotesque pain becomes a visual representation of pain and the sublime.

> Burke states that clear and discreet boundaries are essential to the apprehension of beauty (Burke). Therefore, Goya uses the abject body in his figures to expose them as violations of an expected norm. The grotesque is dignified when a shift in vision from literal to symbolic occurs, revealing the deformed as the sublime not on its physical surface but as an idea. If the sublime is the result of terror, awe, and astonishment as Burke suggests, Goya's figures with deviant bodies that provoke a similar reaction could indicate the 'sublimity' of the artist's profound study of society.

And in *Goya: Order and Disorder* the curators of the 2014 exhibition at the Boston Museum of Fine Arts write:

> "Just as myth can be transformed into nightmare, a motif can assume very different meanings in different contexts… Whether through dream, devotion, or miseducation, the imagination is an unlimited source of images. We might ultimately overcome our fears, embrace, and even sympathize with the creatures we envision."

According to Burke, fear and danger can stimulate feelings of pleasure when they are experienced from a safe distance. "When danger or pain press too nearly, they are incapable of giving any delight, and are simply terrible; but at certain distances and with certain modifications, they may be, and they are, delightful, as we every day experience" (Burke). An example is demonstrated by Charles Darwin in his book *The Expression of the Emotions in Man and Animals* (*1872*),

> Reason telling us that there is no danger does not suffice. I may mention a trifling fact, illustrating this point, and which at the time amused me. I put my face close to

> the thick glass plate in front of a puff-adder in the Zoological Gardens, with the firm determination of not starting back if the snake struck at me; but, as soon as the blow was struck, my resolution went for nothing, and I jumped a yard or two backwards with astonishing rapidity. My will and reason were powerless against the imagination of a danger, which had never been experienced (Darwin).

Darwin and Burke have shown that no matter the mode in which the danger is presented, the mind still imagines it to be real. In video-gaming the gamer takes delight in knowing that there is a 'safety net,' like the glass between Darwin and the snake. But without establishing a convincing scenario first, the perception of danger can fall flat on the viewer if a powerful narrative has not been established.

Establishing Narrative using the Sublime

Narrative comes from the Latin verb 'narrativus', meaning "telling a story" (Collins English Dictionary). In his article 'Utilizing Traditional Storytelling to Promote Wellness in American Indian Communities' (2011), Fredrick Hodge tells us that story telling has been a long-time didactic since language was established as a way of conveying lessons, educating our young or a tribe in life skills (Hodge). This method instils simple, yet entertaining ideas and values into minds of the young and old (Hodge). Stories are told to pass on information from one person to another, from parent to child, how to hunt, communicate and interact. "Different story characters show positive and negative behaviours. The stories illustrate consequences of behaviours and invite listeners to come to their own conclusions after personal reflection" (Hodge).

Narratives develop into novels, movies and computer games. Games 'tell a story' in a more engaging and interactive way, they can also be used to pass on information in a gratifying way, and in the form of problem-solving or 'higher order thinking' skills. Narrative can be used to present apparent contradictions, so, as an example, the idea of horror as pleasure in Yvonne Leffler's book, *Horror As Pleasure: The Aesthetics of Horror Fiction* (2000) and Noel Carroll's *Philosophy of Horror or Paradoxes of the Heart* (1990) examine the influence of the sublime on subjective horror. Carroll say that the narrative of *Dead Space 2* follows an "erotetic" structure.

It is a network of questions and answers that link scenes.

> Some scenes or sequences evoke questions; others answer said questions directly. Still other scenes or sequences sustain earlier questions. Sometimes our questions are incompletely answered. One set of questions (Carroll).

Not all questions guiding the narrative are of the same calibre. Some questions structure the text or what Carroll calls ‘‘presiding macro-questions,’’ where “micro-questions” drive the narrative from moment to moment (Carroll). Opening scenes are built around certain questions that need to take hold from the beginning. The establishing scene generally involves answering the first questions by the original shot. Steve Papoutsis, Executive Producer of *Dead Space 2* says, “Story is extremely important in any video game. I think one of the things that really gets people invested in playing is wanting to discover what’s happened” (Papoutsis). Suspense is key to many a good narrative. This allows the gamer imagination to fill in the missing answers raised by mystery.

The sublime is the duality of fear and attraction achieved by creating suspense. Curiosity and fear find pleasure in each other. This is a fundamental variable which leads many contemporary videogames to become more exciting. According to (Leffler), the 'erotetic' narrative creates suspense by leaving future events uncertain. The lack of information results in intrigue, compelling the gamer to progress further in the games narrative in pursuit of answers to the questions that they have formulated. It is the missing information which links scenes, not a linear relationship between them. This allows the unseen to represent a greater threat than that which is revealed onscreen.

Leffler classifies suspense in the horror novel as any part of the narrative capable of generating expectation in the reader and motivating them to continue reading (Leffler). Suspense is often introduced by means of the presiding macro-questions. It is the lack of knowledge that delays the answers by creating suspense and provoking the gamer to acquire the relevant information. These key questions form the basis of the narrative while the search for answers guides the gamer through it. The desire to satisfy curiosity causes the gamer to actively pursue that which scares him or her, while avoiding the danger it represents. Clearly, the dichotomy of the sublime ranging from fear to pleasure is significant in encouraging gameplay. Without

the all-important narrative which serves as a cohesive gel, some contemporary games would be nothing more than a series of random 'shock tactics', which would not encourage, enthuse or engage gamers for long. Here the gaming audience differs from those of other media in that they have some authority over the course of events. In books and films, the audience has no control over the characters, as they are only able to vicariously observe events as they unfold. It is this desire for 'interaction' and 'engagement' that makes gaming a different experience to sitting down to a non-responsive, static film or novel.

Present Danger

Dead Space 2's presentation of the proximity of grave danger, somewhere within the dark shadows and depths of the Sprawl, gives the gamer no opportunity to face it. Those threats that are presented often leave the gamer in 'poor health' with limited ammunition, forcing them to proceed through a dark room with nothing but a torch (Video Clip 4).

In the majority of first and third person shooters[10], at the start of the game there is a tutorial that helps novice gamers get started with the computer game. Some games have a tutorial option that can be skipped, but in most cases the gamer is introduced to the game by being made to interact with the virtual space through menial tasks. The first and most obvious is by learning to move the character and then, in no particular order, how to: run, strafe (side step), and pick up objects (i.e. guns, ammo and health packs), aim and shoot. The purpose of course, is to teach the gamer where to find these actions on the keyboard or gaming control. These tutorials tend to be intuitive with a quick learning curve.

Dead Space 2 goes about its introduction a little differently. It seems that the designers' intentions were not only to get the gamer engaged in the action, but to allow for a more immediate opportunity to identify with the character, Isaac. A feature of suspense is the ability of the writer to generate empathy with the main character, and in games the more convinced the gamer feels he or she is in "real" danger, and the

[10] First person is viewed by the gamer as if seen through the game characters eyes, were as third person is the gamer view shown over the left or right shoulder of the character in the game.

more suspense will be felt within the gamer (Leffler). Once the gamer takes control of the avatar, the gamer must learn to run by holding down a specific key of the gaming control or keyboard. At the same time a voice shouts over Franco's RIG link to run. This helps induce panic, which causes the gamer to empathize with the character, aiding in the gamer identification process. This leads to the creation of the subjective ego of Isaac Clarke as empathy is translated into anger and a need to defend the self. The activation of the gamer's self-preservation instinct encourages a moral calibration to justify their violent progression through the game.

Lt. Col. Dave Grossman, a U.S. military psychologist, wrote *On Killing;* required reading at the FBI Academy, the Drug Enforcement Agency Academy, West Point, the U.S. Air Force NCO Academy and other military schools, that unless there is some kind of psychological problem, humans do not like to kill others. "There is within most men an intense resistance to killing their fellow man. A resistance so strong that, in many circumstances soldiers on the battlefield will die before they can overcome it… [But] with proper conditioning and the proper circumstances… almost anyone can and will kill" (Grossman).

The narrative can give an individual sufficient reason to feel that they are in danger and have motivation to kill in self-defence, based on perception of a cause, real or not. In games this is augmented by the safety of a virtual space and often, as in *Dead Space 2*, through dehumanising the antagonists.

The Importance of Reason

Immanuel Kant attributes the sensation of the sublime not to any object in itself but to our subjective perception of that object. He adds that the sublime experience would be impossible if we were not aware of the importance of our faculty of reason. There is a fluctuation between the senses being overwhelmed and being able to accommodate our observations using reason.

> "All that we can say is that the object is fit for the presentation of a sublimity, which can be found in the mind; for no sensible form can contain the sublime properly so-called. This concerns only Ideas of the Reason, which, although no adequate presentation is possible for them, by this inadequacy that admits of sensible

> presentation, are aroused and summoned into the mind" (Kant).

Julia Kristeva's description of the sublime is in accord. "The abject is edged with the sublime. It is not the same moment on the journey, but the same subject and speech bring them into being. For the sublime has no object either" (Kristeva). Where the abject is an unrecognizable and grotesque fear, with which we have no desire to identify, the sublime is that which takes us to the limit of recognition and memory, conjuring sensations of removal from the self and astonishment.

> "The "sublime" object dissolves in the raptures of a bottomless memory. It is such a memory, which, from stopping point to stopping point, remembrance to remembrance, love to love, transfers that object to the refulgent point of the bedazzlement in which I stray in order to be. As soon as I perceive it, as soon as I name it, the sublime triggers—it has always already triggered—a spree of perceptions and words that expands memory boundlessly" (Kristeva).

Burke defines terror as that which arouses a sense of evil or danger, otherwise best exemplified in the idea of an angry god. This concept of a wilful divine entity is capable of evoking a sensation of the sublime, a momentary transcendence of the infinite universe. Jean-Francois Lyotard, founder of the International College of Philosophy and a French post-modern philosopher, literary theorist and sociologist, wrote frequently on aesthetic matters, including the sublime. He considers the desire for the existence of the divine a romantic nostalgia or desire to communicate with the universe as opposed to the aesthetic sublime experience, which looks past the nostalgia to identify what constitutes its effects. He explains that modernist art strove to represent the nostalgic sublime while postmodern art strives to make use of aesthetic sublime (Lyotard).

To fully appreciate this sublime pleasure principle, one must investigate the subject's position in opposition to the abject other, the monster in Chapter Two.
In conclusion, playing *Dead Space 2* as opposed to watching a horror film, allows the gamer to subjectively experience what it is like to 'play' the role of Isaac Clarke. The writers and the designers help maintain this illusion by inducing emotions such as the abject, the uncanny and the sublime. In Chapter Three I will discuss the use of horror tropes specific to lighting in film. I will state that these moments are not consistent throughout the game and as we will see in Chapter Two. These immersive moments

are often reversed due to a number of reasons due to what is known as the uncanny valley.

What makes the game successful are these visceral moments that allow, albeit a brief moment, the gamer to subjectively experience the narrative of the game as if he or she is playing as the main actor in a film.

Chapter 2 - The Uncanny Abject

Julia Kristeva's notion on the abject in her influential work *The Powers of Horror* (1982), may be a mechanism to understand morbid curiosity. The unfamiliar causes an uncomfortable imbalance within the self, producing fear, while simultaneously the self-strives to witness the whole and when prevented, experiences the familiar; yet unfamiliar territory of body horror that makes one feel ill at ease. "In short, too close to the borders of our subjectivity for comfort" (Spittle).

To fully understand the creative conceptualisation of the antagonist in the game, one must go beyond the narrative and look to the 'monster.' *Dead Space 2* "draws heavily on filmic traditions of body horror" (Spittle) evoking both the Freudian uncanny and Julia Kristeva's notion on the abject. In Isaac Clarke's case there are two such monsters, the 'Necromorph' and visions of his dead girlfriend as he succumbs to dementia on Titan station.

A monster can be best defined as a "creature of human or animal shape so ugly and grotesquely deviating from what is considered normal of shape or form" which can pose as a threat to human life (Oxford Dictionary). The Necromorph being made up of a variety of human body parts arouses the Freudian uncanny, but by not being of human form this threat also becomes the Kristevan abject. First we have the uncanny, the '*unhiemlich'* as one recognises in themselves the potential in becoming the 'other.' The threat of the monster is the fear of acknowledging the possibility that the subject is in danger of turning into the enemy. This leads into abjection, where a threat exists that is almost inconceivable to our being. The abject shifts between the border of normality and subjectivity by threatening to destroy order and identity (Kristeva).

Dead Space 2, and virtually all "horror videogames have many uncanny qualities which can be used to explore their psychological and emotional impact" (Kirkland). The Necromorph "personifies the intellectual uncertainty whether an object is alive or not, and when an inanimate object becomes too much like an animate one" (Freud). In *Dead Space 2*, the gamer is subjected to a variety of gruesome deaths if he or she is killed. Some of Isaacs death scenarios end with Isaac being killed and then tturned into a Necromorph. Thus personifying the uncanny as the gamer is subjected to becoming the abject "other."

Game Immersion

To be fully invested in the horror game, there has to be some perception of believability. In many cases the success of a game depends on how far the designers can take the gamer into a suspension of disbelief. It is through the willing engagement into the suspension of disbelief that a fictional world, albeit temporary, can be made real to an audience.

In the book *Prometheus Rising* (1983), Robert Anton Wilson tells us that each individual is experiencing the world subjectively through what Timothy Leary, an American psychologist and writer, coined as a "neurological reality tunnel." That is, every individual perceives their surroundings differently to those around them. This is as a result of direct experience as well as through specific imprints from the individual development; other imprints may include particular belief systems as well as additional forms of symbolism (Wilson). These unconscious filters allow each individual to experience the world differently to another, even when placed in the same environment. However certain artistic tropes have been honed over time to manipulate emotions such as fear, anxiety, and the abject, through media such as literature, still images and film, one is able to direct an emotional experience through technical use of art. In the case of *Dead Space 2*, specific cinematic horror tropes was used to help immerse the gamer into the games believability. This chapter investigates several of these tropes in light of the game.

The Mechanisms of Horror

Burke, Kant and Lovecraft believe that what truly frightens us is something strange and awe-inspiring (Leffler). But psychologically orientated scholars such as Yvonne Leffler, author of *Horror As Pleasure: The Aesthetics of Horror Fiction* (2000) and Sigmund Freud, known as the father of psychoanalysis, think that horror involves our emotions in a way that awakens something that is repressed within us. "This implies that we are frightened by something familiar, rather than something strange" (Leffler). Freud's paper on 'The Uncanny' (1919), says "… the uncanny is based on something familiar, but repressed within the ego. That is why ideas of horror arouse mixed feelings which both attract us and repel us" (Leffler). It seems then that the art-horror medium is a way for us to process our emotions. Such feelings of horror, either initiated by an unknown object or by repressed knowledge within the self, have the ability to create a reaction of pleasure within the subject. Horror is arguably a form of wonder, added to which we are naturally curious of the unknown, a morbid curiosity of the abject. It is this so-called pleasure principle that one could say is responsible for the success of the art-horror genre.

As discussed in the first and second chapter, the object or phenomenon that produces a sublime experience in the audience may be anything that could awaken fear and wonder in the face of something strange and frightening (Leffler). "This experience of transcending ones boundaries, by meeting or joining of something beyond and outside the self was compared by some scholars as an almost religious experience, a feeling of transcendence" (Leffler). Natural causes or physical objects could be explained and possibly even reasoned with, whereas the esoteric domain of the paranormal has no principle understanding to its ability to cause fear. (Leffler). This loss of boundaries within the self is similarly described by scholars in the abject and the uncanny. The abject, coupled with the uncanny are closely related to the sublime: "The abject is edged with the sublime. It is not the same moment on the journey, but the same subject and speech bring them into being" (Kristeva).

Although the sublime is a temporary experience, it is important to note that in the context of the game it seeks to become a continuous circumstance. In context with the horror theme, it seems that the designers try to maintain the experience of the sublime, be it through narrative, a place of fear, the uncanny, or the abject.

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The Uncanny

The 'uncanny' or the '*unheimlich'* is a German word to mean 'unhomely.' The once familiar memories of one's home at the age of six years old, only to be confronted by feelings of uneasy nostalgia twenty years later, looking at the half demolished shell of one's home that is now no longer your home, no longer 'homely.' Yet it goes deeper than simple uncanny nostalgia. It becomes the 'strangely familiar,' the uncanny generates a feeling of being 'out of touch.' A 'dislocation' over feelings of a disconnection, bringing to the forefront such feelings of unease, of being 'creeped' out, through which there becomes a loss of personal boundaries (Arnzen).

In one of the first theoretical writings on the uncanny, Ernst Jentsch in his paper 'On the Psychology of the Uncanny' (1906), describes the uncanny as the experience of "intellectual uncertainty", where the familiar comes into contact with the unfamiliar. Throughout the game Clarke sees his deceased girlfriend Nicole, who is the main antagonist of the game. The Marker manipulates Clarke by feeding of his dementia, by using Nicole's bloodied apparition as a tool against him. Upon seeing Nicole (Figure 11), Clarke would be dealing with intellectual uncertainty, especially when she first appears to him in the opening scene covered in blood with strange lights coming out of her mouth and eyes.



Figure 11. Nicole Brenan as she was when she was alive.



Figure 12. Isaac Clarke is faced with ‘intellectual uncertainty as he is visited by his deceased girlfriend, Nicole Brenan.

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Intellectually the rational mind 'freezes' up. Clarke is unable to determine whether the experience is safe or should be feared, whether to run or fight. The uncanny experience is caught up in the mystery of suspense. The notion of "intellectual uncertainty" was determined to be at the centre of uncanny (Arnzen). Ernst Jentsch, A German psychiatrist in his essay 'On the Psychology of the Uncanny' (1906) wrote "In storytelling, one of the most reliable artistic devices for producing uncanny effects is to leave the reader in uncertainty as to whether he has a human person or rather an automaton before him in the case of a particular character" (Jentsch).

Dr. Michael Arnzen in his lecture 'The Popular Uncanny' (2012) gives an example of intellectual uncertainty. He shows us an optical illusion by Salvador Dali (Figure 13), in what appears at first be a man (Dali) with a moustache but upon closer inspection is instead a woman in a room.

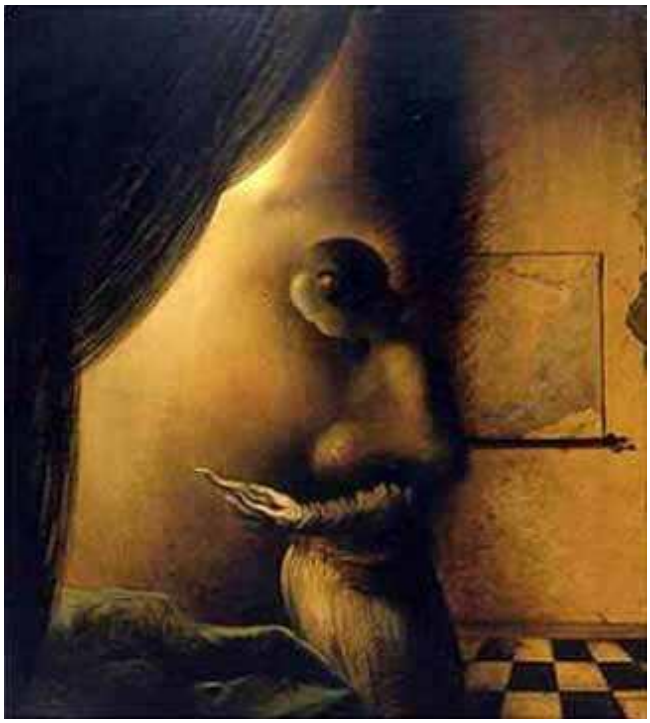

Figure 13. *The Image Disappears* by Salvador Dali (1938)

He argues that the mind switches back and forth, uncertain of what they are seeing until eventually the mind is able to make a judgment.

Although Freud includes Jentsch's theory on intellectual uncertainty, he disagrees with Jentch's notion. Freud argues that it is not that one is uncertain but rather that the mind knows exactly what it is that is disturbing, but refuses to accept it. In Freudian terms it is a psychological disavowal. Freud's theory is grounded on two

approaches of suppressed horror. The first is inherited thought or a collection of ideas. Whereas the second is suppressed memories from childhood traumas. Freud's belief is that true horror is derived from the subject's fear of castration (psychological disavowal), as it results in feelings that lead to the ego being mutilated and incomplete. (Freud). In the game, Isaac has to go through a children's infirmary, where he comes face to face with the uncanny in many such forms. As Isaac enters the infirmary, he can only stand by and watch as a Crawler, a reanimated Necromorph baby, crawls towards a woman. The torsos and head of the baby have both been twisted backwards with an enlarged bloated stomach filled with an explosive substance. The baby moves towards the woman in a caterpillar like fashion due to the legs being fused together. As the woman picks up the baby in a motherly embrace. She and the Crawler explode in a spray of blood (video clip 5).



Figure 14. Baby Crawler.

The unconscious knows why it is "creeped" out but refuses to accept what is the truth. Freud's theory on the unconscious says that our minds lie to us in order to protect our psyche. Our imagination is constantly fooling us to help us feel safe. However once given further information on an entity that one knows little about, can lead to a loss of threat. Not to say that there is any less fear, but there is certainly a decreased sense of the uncanny once we know what it is we are up against. Humans have a tendency to revere the unknown, which can often lead to emotions such as fear.

The Abject - "Make Us Whole!"

"Throughout a night without images but buffeted by black sounds; amidst a throng of forsaken bodies beset with no longing but to last against all odds and for nothing; on a page where I plotted out the convolutions of those who, in transference, presented me with the gift of the void – I have spelled out abjection" (Kristeva)

Kristeva points out that uncanny is significantly different from the abject as the abject is more violent. "Essentially different from "uncanniness," more violent, too, abjection is elaborated through a failure to recognize its kin; nothing is familiar, not even the shadow of a memory" (Kristeva). In terms of *Dead Space 2* it is in that moment that the game character realises that nothing about himself, memories or even what he sees can be trusted that he breaches the abject within himself.

Kristeva's abject finds its most important representation within the corpse. According to Kristeva the corpse does not necessarily signify death, instead it negotiates the progressive decay of the body. When the subject is faced with implied death, the 'I' moves itself away from idea of death. "…corpses *show me* what I permanently thrust aside in order to live" (Kristeva). It is within the border of growth and decay, of life and death that we find the abject (Kristeva). The lifeless form that stinks of death intrudes on the living. In *Dead Space 2* the cadaver finds its place between the border of life and death as the zombie. The once living, becomes a seemingly immoral animated Necromorph that seeks to destroy the living.

Throughout the game there is evidence of the uncanny and the abject. One particular example is that of the Necromorph variant, the 'Puker' (Figure 15). It is Kristeva's literal abject materialised into a walking cesspool of melted flesh. The Puker is exactly as is described. It kills its victims by grabbing them with its three long taloned claws and vomits acidic bile onto the face and neck of its victim. The Puker consistently expels caustic fluids which has melted its facial features away. The jaw has merged into its neck and its face frozen into a blank and hollow stare through empty eye sockets. Its chest cavity is split wide open exposing its yellow lungs that stores its toxic bile. What little flesh is left, hangs loosely around the Necromorphs frame (video clip 6)



Figure 15. The Puker

The corpse reflects Kristeva's concept that there is a literal breakdown between subject and object. What we are confronted with when we experience traumatic events – in this instance by seeing a human corpse (particularly the corpse of a friend or family member) - is our own eventual death made real to us. As

Kristeva says

> The corpse seen without God and outside of science, is the utmost abjection. It is death infecting life. Abject. It is something rejected from which one does not part, from which one does not protect oneself as from an object. Imaginary uncanniness and real threat beckons to us and ends up engulfing us (Kristeva).

Coupled to this are fears about a 'god' (the Marker) that we powerfully see in *Dead Space 2*. It is not the idea of a "good" god that is out to save us but an evil god out to destroy. In the case of Clarke it is an attempt by the Marker to enslave his mind by using what is most dear to him by creating an illusion of Nicole and, in this the grand scheme, not just humanity but all life, an abjection of religion. Much like that of Descartes's malignant demon, or in this case it can be seen as the Marker. As Nietzsche once stated "God is dead" and there comes with it not only the death of one's deity but a death in one's moral values. Why now be *good* without any form of moral values. It is the loss of self at the utmost of rejection, abjection, when your only god has now forsaken you, not to the cruel ways of life but to a Lovecraftian universe to the likes of the "old ones." Kristeva takes this further,

> On close inspection, all apocalypse that seems to me rooted, no matter what its sociohistorical conditions might be, on the fragile border (borderline cases) where identities and its own subjective experiences (the subject/object, etc.) no longer exist or only barely so—double, fuzzy, heterogeneous, animal, metamorphosed(mutated), faltered, abject (Kristeva).

It is only later in the game that Isaac discovers that the Marker is such an entity that seeks to destroy not just the colony, but all life in the universe. After this information is discovered by Isaac he loses all hope, for how can one man take on something so large.

Nicole is the abject 'other' in the narrative of *Dead Space 2*. The Marker uses the image of Nicole as a psychic weapon against Clarke. Even though her physical body is destroyed; her psychic self survives as the resentful zombie with supernatural powers. Outside of God, the abject transcends death to 'infect' life, thus infecting the mind of Isaac. It is within the form of Nicole that abjection reaches its peak.

Stick a Needle in My Eye

A major theme throughout the game is the 'eye,' or rather the loss or damage done to the eye. One of the examples of Freud's uncanny is to be robbed or damage done to the eyes. Freud writes "We know from psychoanalytic experience, that this fear of damaging or losing one's eyes is a terrible fear of childhood… and no bodily injury is so much dreaded as an injury to the eye" (Freud).

In *Dead Space 2*, Clarke is not just surrounded by mutilated bodies, but is also being attacked by animated recombinant corpses. When Nicole confronts him, he does not just have mixed feelings of attraction and repulsion, but abjection. As Isaac exits out of a vent, his girlfriend is immediately upon him, trying to stab Isaac in his eye with a syringe. Screaming at him to "Make us whole!" if the gamer does not react quickly enough, Isaac will unavoidably stab himself in his own eye as it turns out to be an illusion of his girlfriend (video clip 7).

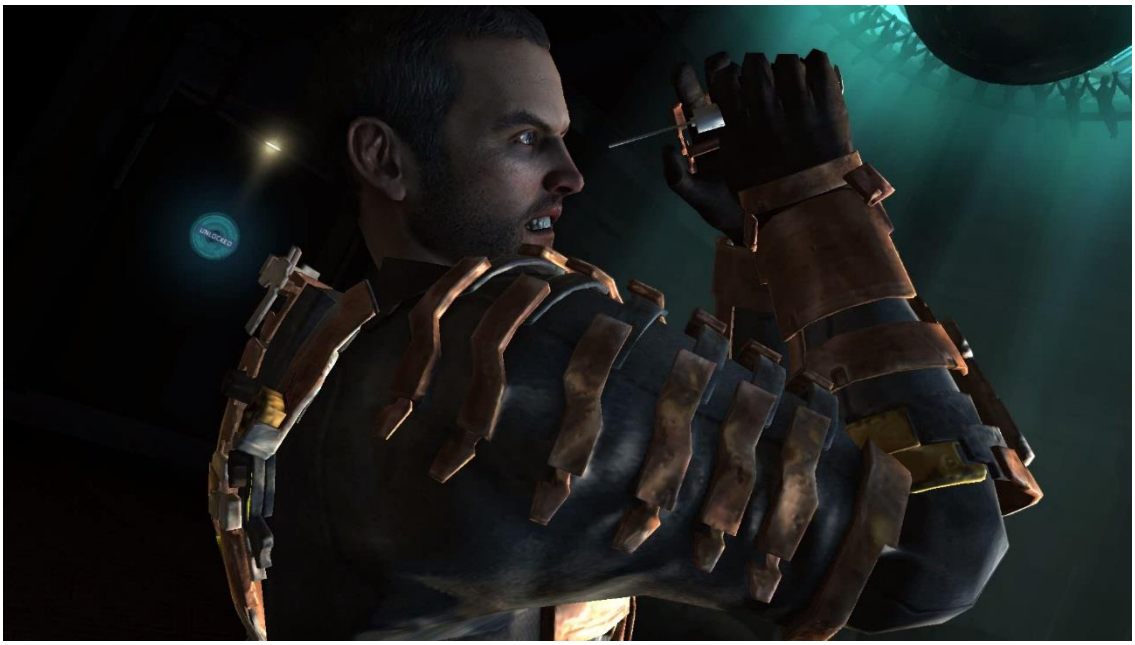

Figure 16. Isaac holding back the syringe from piercing his eye.

Kristeva identifies the abject as the entity which is responsible for causing the loss of the cohesive self. This ultimately becomes the root or the cause of fear. Once the subject finds themselves in this unknown territory there becomes a cause for doubt. The self is then forced to reveal an unimaginable 'other'. Because of the lack of an intellectual understanding of the 'other', the ego becomes unstable. In this

ambiguous territory the self has no choice but to develop an unthinkable "other" resulting in an unstable ego of self. It is the uncertainty of the situation that is key for the cause of fear and eventually leads to abject terror. Burke believes that it is not the experience of the sublime that arouses terror, instead it is an oncoming sense that pain and danger is imminent (Leffler). “Pain, and thus indirectly terror, is our strongest emotion or passion, since it is linked to our death” (Leffler).

Burke believes that terror is only initiated from experiences that have caused pain and physical threat in the past (Burke). The experience of constant threat of pain is part of the object phenomenon that causes a discrepancy to the balance of the ego. This experience is a direct result to the other or abject that threatens the main character in the game. The subjective ego of the gamer is constantly trying to steady itself in the games narrative, by confronting what threatens the life of the character. Only then is it possible to experience the sublime.

In this depicted scene of Nicole as she tries to stab Clarke in the eye is powerfully related to the uncanny loss or damage to one’s eye. Oedipus stabbed his own eyes out with his wife’s brooch, unconsciously he would rather blind himself than submit to the power of a woman. Clarke begins to realise, perhaps like Oedipus, that fate cannot be tested nor escaped. Oedipus was blinded to his own life by trying to ignore the truth of his life. Like Oedipus who lost his wife to suicide and his realisation that he was also the murderer of his father, Clarke is now trying to find meaning to life beyond the death of his girlfriend. Clarke is still struggling to face not just the truth of his girlfriend’s suicide but also having to face the truth that the codes - that are specifically used to create copies of the Marker- are imbedded inside of his head. By killing himself he will merge with the Marker making them whole and pass on the codes. If he does he will give up his power and ultimately destroy not just himself, but all of humanity.

Within the narrative the protagonist, Clarke, is not only suffering from posttraumatic stress but also from survivor’s guilt. It is a natural response to be afraid when confronted with danger, the “fight or flight” response is a healthy reaction to prepare and protect oneself from danger. Those that have Posttraumatic Stress Disorder or PTSD may sometimes remain in this “flight or fight” response even after

a fearful event has taken place. PTSD can develop after a terrifying event such as physical harm or threat has been made on one's life, such as a near death experience. Added to which Isaac Clarke is also most likely suffering from survivor's guilt, by not having been able to save his girlfriend. Survivor's guilt is an intense suffering of guilt by one who believes they have done wrong by having survived a situation where others did not.

Being the only survivor from the Ishumura, Isaac bore witness to the deaths of all the crew in *Dead Space* and watched in horror as his friends and crew became the very monsters he had to survive against. Now, coupled with his girlfriend Nicole's desire to kill him, it is only later that we find out she is not the 'real' Nicole but the "Marker" playing on his unconscious. The apparition of Nicole tells Isaac that she does not forgive him for not being able to save her. So her retribution is to demand he should, "Make us whole." The only way she was able to rescue herself was to kill herself, her innocence lost by her own hand. The "Marker" plays on his survivor's guilt by telling him that he couldn't save her, so in terms of his own psychology he believes that she wants him to kill himself so that they can become 'whole' again. Nicole's desire to kill Isaac is his own unconscious desire to kill himself, or so he starts to believe.

> Things that we find to be frightening are things that we have had contact with before, things that are part of our society already. Once something that we are familiar with undergoes change, and appears to be estranged from its original meaning or contexts, that is when we become afraid, or at least wary, of it (Freud).

Nicole loved him as he did her, but now stuck in intellectual uncertainty, he believes that she is a dangerous apparition. By killing himself he would allow the Marker to become powerful. When Isaac does not go through with his own suicide attempt it becomes clear that he is saying "No, I am powerful in me, I will not allow you to blind me" Clarke is choosing to see himself, through inner vision, by pulling on the golden cord of reason.

As the game progresses, Nicole becomes steadily more aggressive, assaulting Clarke in an attempt to add to his guilt that resides in him. This aggressive behaviour is a way for Nicole to push Isaac deeper into his dementia. Only when Isaac finally

accepts her death does her appearance change to her original state when she was alive. She encourages Clarke to get to the Marker so that he can destroy it, not realising that it is a ruse to get him closer to the source of his insanity and would be demise. Before Clarke is able to get to the Marker he, and the gamer of the game, must endure one more abject scene in Chapter Thirteen. Clarke must remove the codes from his head by using a machine known as the *NoonTech Diagnostic Machine*. To retrieve the "blueprints" from Clarke. The machine is used to stick a needle into his eye and into the brain. The gamer is given control of the machine and with a steady hand has to find its mark by finding the centre of the eyes pupil. If the gamer fails, Clarke succumbs to a horrific death as the machine penetrates deeply into the socket of his eye (video clip 8).

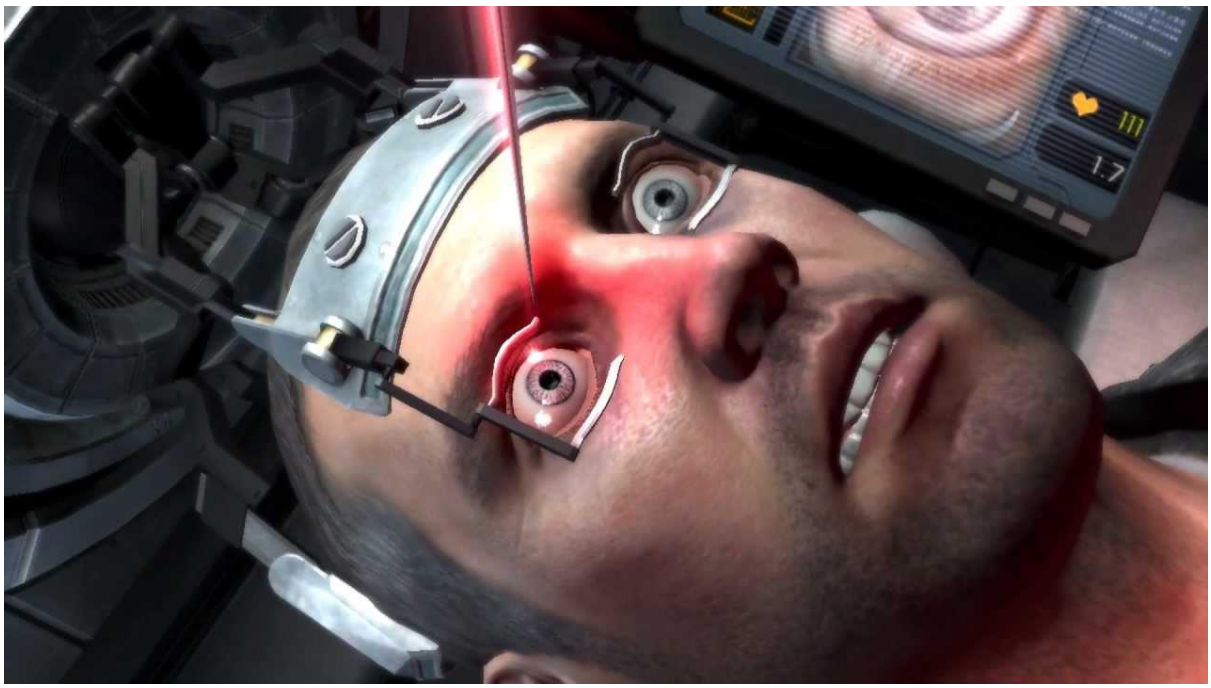

Figure 18. The gamer has to take control of the machine so that he may pierce Isaac's eye to remove the codes from his head.

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Figure 17. Dire consequences for Isaac if the gamer accidently misses the retina.

After Clarke has removed the codes he is now able to get to the Marker and hopefully destroy it. As he arrives, Nicole appears in front of him, dropping all pretence and revealing herself to be nothing but a broadcasted hallucination by the Marker. She tells Clarke that he must die so that he can be absorbed by the marker completing the *Convergence*[11] so that the Marker and Clarke can finally become whole. Betrayed by the apparition of Nicole, Isaac is then transported into his own mind to what seems to him, another world. It is only in his mind that he is able to kill the apparition of Nicole. By killing her he also destroys the Marker cutting off the connection the Marker had with Isaac.

As mentioned in the previous chapters the sublime is evoked through a false experience by the game designers- an artificially fabricated experience - that thriller and horror games offer the gamer. The gamer willingly puts themselves into a passive role of safety by engaging themselves in the game as Isaac Clarke. Although the gamer participates in the merging of story and the protagonist's identity. There are still many limitations to the experience of the game. These restrictions challenge the idea of being in fear of harm. The observation of the threat is experienced from a

[11] A convergence event is believed by the Unitoligists as a singularity event or made whole by the Marker. The reality of a Convergence event is instead a process triggered by the Marker by drawing all infected organic matter (Necromorphs) towards it so that it may feed on all organic life in the galaxy.

position of safety. This is relevant to experience of the game as it allows for a sense of false heroics that the gamer would not wilfully experience in reality.

Abjection of the Uncanny Valley

In recent years the uncanny valley has been used to frame critical analysis of hyper-real robotics as well as character animation in film and computer games. The notion originally stemmed from a repulsion of humanoid robots by a Japanese man named Masahiro Mori. The notion predicts that as animated characters become more realistic in appearance, there is a possibility that these characters start to become unsettling to the audience. This feeling of being 'creeped' out is the epitome of the Freudian uncanny. There are a few animated films that shift into this phenomenon of the uncanny valley. Instead of entertaining the audience, most of the viewers were discomforted by the characters they saw. Such examples include the baby in Pixar's animated short *Tin Toy* (1988), an animated version of Tom Hanks in *The Polar Express* (2004), *Beowulf* (2007) and *The Adventures of Tintin* (2011).

Professor Michael Arnzen argues that the closer the designers try to create a human likeness the more repulsed we become of the human object that is depicted (Arnzen). Masahiro Mori created a chart (Figure 18) to help give a better understanding of the uncanny valley.

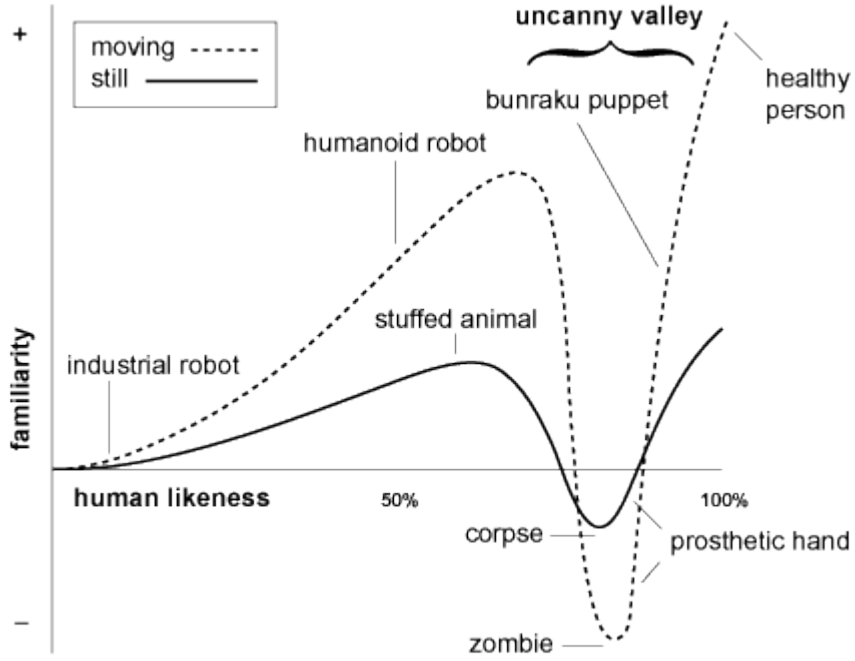

Figure 18. Masahiro Mori chart on the uncanny valley.

The uncanny valley denotes the dip in familiarity on the y axis of the chart. At the left of the chart on the x axis one finds industrial robots moving and stuffed animals that reflect the characteristics of humans. We find that they are able to entertain and in some cases they even receive empathy from their audience, as with R2D2 and C3PO in *Star Wars*, both of which have a large fan base. But the further it moves on the x axis where robots and digital characters more closely resemble human likeness, there is suddenly a dip in familiarity. It is at this point, where complete defamiliarisation occurs that they begin to remind us of a corpse or zombie (Arnzen).

Daniel Snyder of The Atlantic gives a good example of this, he says

> "History has proven audiences to be rather skittish around digital representations of themselves. Non-human entities like Andy Serkis' Golum or Caesar from *Rise of the Planet of the Apes* have had no problem wooing viewers. It's only when they attempt to mimic reality, instead of warp and play with it like the friendly caricatures of the Pixar universe do, that they fail" (Snyder).

Unfortunately in the case of *Dead Space 2,* the game attempts to play itself off as a sci-fi horror, loses itself not only to the 'Uncanny Valley' but essentially falls flat as a b-grade horror film.

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Animation

As a Necromorph hurtles down a corridor towards the gamer , there is an uncanny valley challenge to its believability leading to a sudden disinvestment in the game. Sprinting out of the shadows of the sublime, a Necromorph can look to weigh between eighty to one hundred and sixty kilograms. This of course depends on the type of Necromorph Isaac might encounter. The animation of the monster as it is when it is 'alive,' the speed at which the creature comes at the gamer , the modelling, texturing, lighting as well as the sound the creature makes, all come together to create a brief moment of time 'real' in the mind of the gamer. A moment of sublime-horror.

Yet, just as there is an investment within the illusion of immediate danger, this is broken as the gamer kills the Necromorph. The moment the Necromorph dies, the body loses all sense of weight. It flails about like an inflatable air man used outside a second hand car sales venue. It moves from one hundred and twenty kilograms of conjoined human body parts out to tear Clarke limb from limb, to abruptly turning into weightless bits of meaningless data. This unfortunate glitch is not the fault of the designers but merely that we are still behind in our technology to use real world physics in gaming. 3d physics in film and games require a large amount of resources to output the illusion of real world physics. Where film has the freedom of being able to utilise this technology by rendering out individual frames (which is then put together in post-production), gaming does not have this privilege as it is unable to meet the resource demands for real time rendering.

The moment this becomes most apparent is when Isaac impales a Necromorph with an iron rod to a wall using either the telekinesis[12] or "Kinesis" module or by being speared by the Javelin gun (Video Clip 8). No longer believable as a flesh rendering monster it goes back to what it is, textures wrapped around digital polygonal shapes. It is in this that the maintaining of horror fails. The willingness to go into the suspension of disbelief[13] is torn away from the gamer. This creates an

[12] Telekinesis or otherwise referred to as "Kinesis" is an added module on Isaacs suite designed to work with the Stasis module. Whereas Stasis is designed to slow down objects in space and time using the science of quantum physics. Kinesis uses an artificial gravity field to suspend and move both light to extremely heavy objects.

[13] A readiness to suspend one's critical capacity and to believe the unbelievable (Oxford Dictionary).

uncanny disconnect between gamer and monster. A double abject, not only in what is represented, but in how it is represented. This uncanny disconnection leads the gamer into the uncanny valley. “The avatar’s (and the monster) combination of animation and lifelessness personifies Freud’s notion of the uncanny” (Kirkland).

Another example (and throughout the game) is at the very beginning of the game, we are immediately introduced to the uncanny valley as the gamer is met with a video transmission of a very static yet ‘twitchy’ looking Nicole. Instead of engaging into the narrative at the very start, there is an immediate disconnection as Nicole’s



character stares blankly back at the viewer (Figure 19).

Figure 19. The gamer is greeted by a ‘glitchy’ virtual puppet show as Nicole Brennan takes the viewer into the uncanny valley.

Hardly blinking and a constant shifting of her head makes one feel ill at ease. The only movement that we see is around her mouth and a constant bobbing of her head which in itself is uncanny as the lip sync doesn’t quite match the voice over. Her head movement seems more like a poorly caught “motion capture”, in common terms known as “mocap” or “performance capture.” The artists either forgot or was unable to clean up the extra key frames causing the subtle ‘twitches’ of movement. In an

attempt to give the viewer the perception that the transmission is being sent from a distant part of our galaxy, the designers gave the video transmission some static and the odd glitch as the frames skip and jump about during the transmission, thus giving the illusion that there is a poor signal. Unfortunately this only takes the viewer deeper into the valley as it makes Nicole look more like a soulless robot. Kirkland in his article 'Horror Videogames and the Uncanny' (2009), tells us that "there is a robotic repetitive quality to the movements – the characters remain, in many ways, virtual puppets (Kirkland).

Nicole is not the only character that leads us down into the uncanny valley. Throughout the game the gamer is constantly being disengaged. As the narrative aspect of the game unfolds in cinematic cuts, the gamer loses all use of his or her gamepad or keyboard and mouse. This has the effect of immediately disengaging the gamer as they are forced to watch an uncanny virtual puppet show.

However, it is not all lost as there are moments in the game that help the gamers immersion and prove why the computer game was still a great success despite its limits to the uncanny valley and the double abject. While the actual threat of the monster is sometimes lost on the gamer, the lighting department took full advantage of filmic horror tropes by treating lighting as another entity in the game. Giving the game the perfect setting for the gamer's minds to linger on what may lie in wait in the dark.

It is for this reason that I chose *Dead Space 2,* this was the first time *Visceral Games* chose to focus on lighting as a specific element within the game. In the past, level designers of the first instalment were also tasked with lighting the games levels as they were being built. Often without thought, level designers would simply place lights around the scene merely to light up certain areas without any creative understanding of lighting techniques (Milham). Because the level designers lacked both the technical and artistic understanding of lighting, art director Ian Milham assembled a dedicated team of lighting artists. His goal was to treat lighting as another "character" in the game. It was because of this added element that made *Dead Space 2* so significant from other games within its genre. Lighting, when utilised correctly in the context of the horror genre, can play a major role by inducing such emotions as the sublime.

Chapter 3: Lighting and the Sublime

"When asked to explain how lighting contributes to film making, I often show a completely black slide to emphasize [that] without light, it doesn't matter how great the composition and acting are – nothing can be seen," Sharon Calahan, Director of Photography, *Pixar: Advanced RenderMan*

There are many important cinematic tools used to convey a message, but none more important than lighting. Aside from the obvious necessity of 'seeing' shots and angles, lighting also has a significant effect on achieving the sublime.

> "All colours depend on light. Light, therefore, ought previously to be examined; and with its opposite, darkness. With regard to light, to make it a cause capable of producing the sublime, it must be attended with some circumstances, besides its bare faculty of showing other objects. Mere light is too common a thing to make a strong impression on the mind, and without a strong impression nothing can be sublime." (Burke)

Without light, we cannot see and with the dark comes one of the oldest known fears of mankind; fear of the unknown. Fear of the dark brings an emerging of infinity and the sublime, the infinite void of one's own imagination and the darkness of the infinite shadows of space. It is a primitive fear that goes back to the earliest hominids who would be most at risk in the dark to those predators who hunt at night, with eyes far better able to see in the dark than ours. Fear of the dark goes back to our childhood fears of various superstitions and mythical creatures, spurred on by stories and sayings. Many such things are culturally bound, for example the 'Tokoloshi' of Zulu mythology and the American 'boogeyman'.

Vincente Minnelli illustrates this concept beautifully in his 1952 film, *The Bad and the Beautiful.* It is illustrated in a conversation between the director, Amiel, and producer, Sheild's producers of the B-grade horror film, *The Doom of the Cat Men.*

> Shields: Put five men dressed like cats on the screen - what do they look like?
> Amiel: Like five men dressed like cats.
> Shields: When an audience pays to see a picture like this, what do they pay for?
> Amiel: To get the pants scared off them.

> Shields: And what scares the human race more than any other single thing? (He switches off the lights.)
> Amiel: The dark!
> Shields: Of course, and why? (He moves his hand under a light on a desk.) Because the dark has a life of its own. In the dark, all sorts of things come alive.

As a lighting artist, one is not just there to simply shine light on the *matter,* so to speak. The artist should not only be able to understand more than just the technical elements, but he or she must also be able understand the emotional aspects it can induce in a viewer. With even the tiniest amount of light, if it is used correctly, the artist is able to create mood by invoking some form of emotional impact or by simply sending a message. Light can behave as a supporting cast to characters and create a story within a scene. It can also help direct the viewer's eye to elements in the scene, in other words, lighting is integral to the *Mise-en-scene* and without it there would be no *Mise-en-scene.*

> "Knowing all the lighting tricks in the book is all good and well but without proper consideration all of the technical wizardry will be for nothing," writes Darren Brooker in his book *Essential CG Lighting Technique* (2003). He says, "Lighting needs to operate on an emotional level in order to fulfil several things. It should be able to produce a reaction that is coherent to the scene within the story, be a guide to the viewer visually to areas of focus, while at the same time reinforcing a desired ambiance" (Brooker).

The significance of light manipulation was carefully considered with the makers of *Dead Space 2* as they understood the impact it would have upon the gamer. In an interview, Ian Milham, Art Director of *Dead Space 2*, stresses that "…the lighting in the *Dead Space* games have always played a big role. Lighting is one of the key tools of the trade to get a great horror atmosphere." Milham says that on the majority of teams in the gaming industry there are not many dedicated lighters; often the responsibility will fall to the set builders to simply add lights within the set as they build them. In animated film production these are two very distinctive skill sets. There are specialized artists dedicated to each skill like modelling, lighting, rigging, animation, texturing, camera work etc. On production of *Dead Space* they had as many lighters as they did character developers. The reasons being, as Milham states, "lighting is like a character to the artists. The lighters were specifically asked to have the lights always doing something whether it be fritzing, fading or changing colour...

Dead Space 2 is much more of a world that needs unwrapping and exploring."

Having affirmed the importance of light within the cinematic and modern-day gaming with regard to achieving the sublime, various lighting techniques will be examined in more detail below with supporting images to clearly examine its various styles.

Lighting: friend or foe

By negotiating the world of *Dead Space 2,* the lighting can sometimes be your friend and other times your enemy. It is always changing and moving beneath the gamer , keeping the scenes alive and something that the gamer has to constantly compete with. Because the original *Dead Space* game was set on the space ship, Ishimura the lighting artists were not given much of a chance to experiment with variety.

The second instalment of the game was set in a city on a moon which gave the artists further room to explore different sets. It gives *Dead Space 2* a different feel to the original, which was more closed off and claustrophobic. *Dead Space 2* tends to be brighter in certain areas due to its city lights and has far more open spaces to work with. These sets range from ten lights to hundreds of lights. In certain scenes, vast open windows look out over the city with Saturn in view. Sometimes the only light source is Saturn, adding long dramatic shadows across the open space inside the city.

One of the most effective lighting techniques in the game is Isaac's spotlight that is attached to his weapon. In most cases this will dictate what the gamer can see and what his or her experience will be like. Since the artists have lit the scene with this in mind, the scenes can come off as flat and lifeless until the gamer enters that scene, making it a critical light source. As soon as the gamer light is added, the scene comes to life. It is a brilliant psychological move; the gamer literally feels as if the sun shines out of him or her. Milham states: "All the other lights in the scene become like a supporting cast." The gamer is the key light.

This key light can be linked to Burke's notion on obscurity. If the gamer does not progress further then nothing can be revealed. Burke quotes Milton's *Paradise*

Lost and notes, "all is dark, uncertain, confused, terrible and sublime to the last degree." (Burke, 42)

The other shape,

If shape it might be called that shape had none

Distinguishable, in member, joint, or limb;

Or substance might be called that shadow seemed;

For each seemed either; black he stood as night;

Fierce as ten furies; terrible as hell;

And shook a deadly dart. What seemed his head

The likeness of a kingly crown had on.

- *Paradise Lost Book 2*, John Milton(1608-1774)

-

From Paradise Lost to Rembrandt

The importance of light and colour textures in modern day films and games was also influenced by famous classical artists. To help the artists get a specific feeling for the set design, the lighting artists referenced Ridley Scotts *Alien* (1979*),* as well as many painters from the Dutch Golden Age. Rembrandt's *The Night Watch* (1642) is a good example of what was used. Much of the *Rembrandt technique,* combined with other filmic horror tropes can be seen throughout the *Dead Space 2* lighting team's strategy. Phillipe Bosher from gamerant.com asked Ian Milman how he and his team got a distinctive feel across both *Dead Space* and *Dead Space 2*.

> "I think the key, when we're thinking of our inspirations, and looking back on them, is to try to get beyond the exact visuals or their exact styles and move into how they made us feel… 'Well, how did it get us there?' You know, the pacing of 'Alien', or the loneliness and distrust of 'The Thing'… So, we looked at that sort of stuff from film; we looked at a lot of paintings by Dutch Masters, when they really got into [the theme of] light…We looked at when light became a character in art, when it became a character in painting, and it was really Rembrandt, and around that time."



Figure 20. *The Night Watch*, Rembrandt (1642)



Figure 21. A scene from Dead Space 2 emulating Rembrandt's lighting technique.

Ian Milham specifically wanted to avoid futuristic and sci-fi clichés that most

other games tend to overdo, where objects are inclined toward being an oversaturated array of neon glowing colours rather than the dark and gritty feel that *Dead Space 2* was aiming for. One of the ways Milman got around this was to simplify the colour scheme, by keeping the lights either white or yellow. This helped give the game a more realistic look and feel as opposed to the fantastical. Reference to the dentist room, was one of the ways the artists achieved a realistic, yet futuristic unease.

> "We've all been to the Dentist and had relatively unpleasant experiences. The Dentist's lights, as an example. They're a certain touchstone — they're very peculiar… The Dentist can move it around and you feel interrogated. That sort of stuff — we tried to figure out how these various things made us feel, rather than literally copy them visually, and hopefully get some of that essence into what we're doing."

Before explaining how the Rembrandt technique is created technically, it is best to first understand certain specific horror tropes through other means of lighting.

Backlights

The backlight can help suggest three-dimensional space by separating the subject from the background to create the illusion of volume. The backlight catches the edges of the subject creating (if angled correctly) a white glowing outline, known as rim or edge lighting. Sometimes this can create an ethereal like halo effect through a scattering of light. This often works best if there is some form of atmospheric aberrations such as dust, fog, smoke etc. (Sipos).



Figure 21. Backlighting, rim lighting reflecting off the back of Isaac's helmet and right arm.

Strobe Lights

Strobe lights (aka stroboscopic lights) flicker in a regular, constant fashion. They are often used in dance clubs where their constant flickering creates the illusion of a slow motion effect. As part of the game set décor, they can evoke a cheap, decrepit and seedy environment (video clip 10).

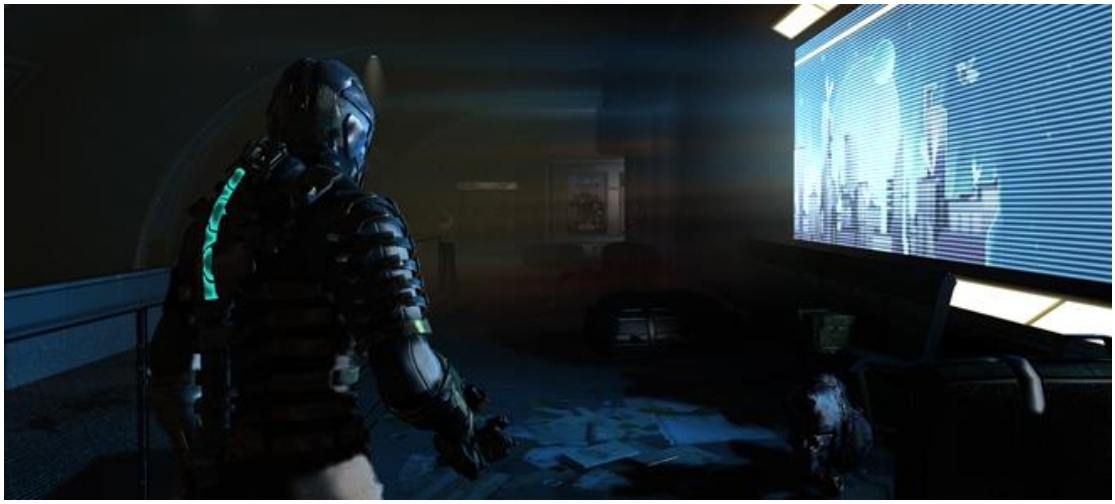

Figure 22. Strobing billboard. (see video clip 9)

The animated billboards make for excellent use of strobe lights, rather than the regular tempo of a strobe on a dance floor strobe light, the animated billboards, essentially massive area lights create an irregularity to the strobe effect.

High Key Lighting or High Key-to-Fill Ratios

High Key Lighting is a technique commonly used in horror films. High key to fill ratios, such as 8:1 (this is the amount of ratio of light to dark) can create a darker and more dramatic looking scene of stark contrast between bright and dark areas. Some examples of high key lighting include: Night scenes, which often use high key to fill ratios. At night, you still have a key light coming from the moon or an artificial light source, but there is no natural source of fill light from the sky. Often scenes in horror movies and/or dramatic and suspenseful scenes benefit from high key lighting. Using less fill means that more of the scene is placed in darkness. It is a useful technique to help build suspense. *Film Noire* film genre is renowned for the use of high key to fill ratios.

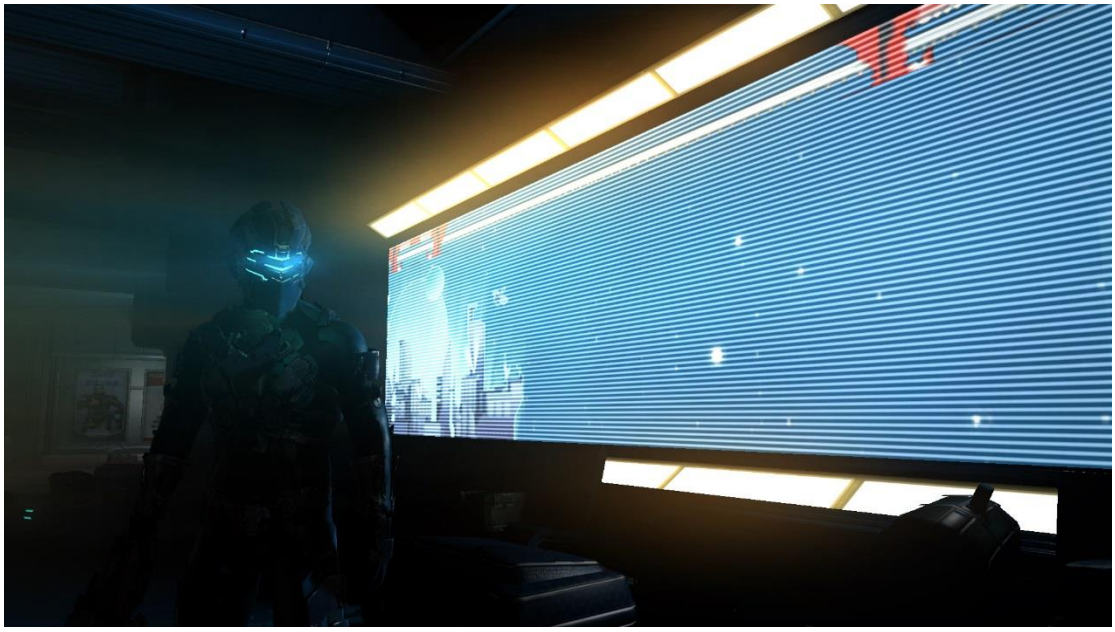

Figure 23. High Key Lighting

Rembrandt Technique (technical)

Rembrandt lighting is a technique used to emulate Rembrandt's lighting methods in film and photography. This technique can help achieve a professional look with minimal amount of equipment. It is often used in studio portrait photography, where one side of the subjects face is well lit, stark shadows are created on the other side of the subject (high key lighting) with the quintessential triangular shape appearing on the opposite cheek, this also allows for both eyes to be lit. Tiffany Mueller writes in her article *An Introduction to Rembrandt in Portrait Photography.* "To be true to Rembrandts lighting, the all-important triangle of light should be about the same width and length of the subject's nose" (Mueller).

This particular setup creates a dramatic effect by mixing light with contrasted shadows, which is also referred to as Chiaroscuro, its literal translation from Latin, meaning light-dark.

Now that we understand how Rembrandt lighting works, I will show how this can be setup in studio. Some have argued that it is possible to achieve the Rembrandt technique using only one light, but the preferred method is to use one light and a reflector, or in some cases two lights . The reflector allows for a small amount of fill or bounce light to bring out details in the shadowy areas. While still high in contrast, allows for a subtle mix of light and shadows as in the Chiaroscuro technique.

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Start by setting the key light at a 45 degree angle to the model, raise the light so that it is above the model and aiming down towards the subject. Next is the reflector, which will serve as the bounce or fill light. The reflector is placed at the opposite side of the model also at about a 45 degree angle. The camera is placed roughly midway, between the key light and reflector. Have the subject facing the key light with his or her torso and then have them look directly into camera, tilting their head toward camera at a 90 degree angle.

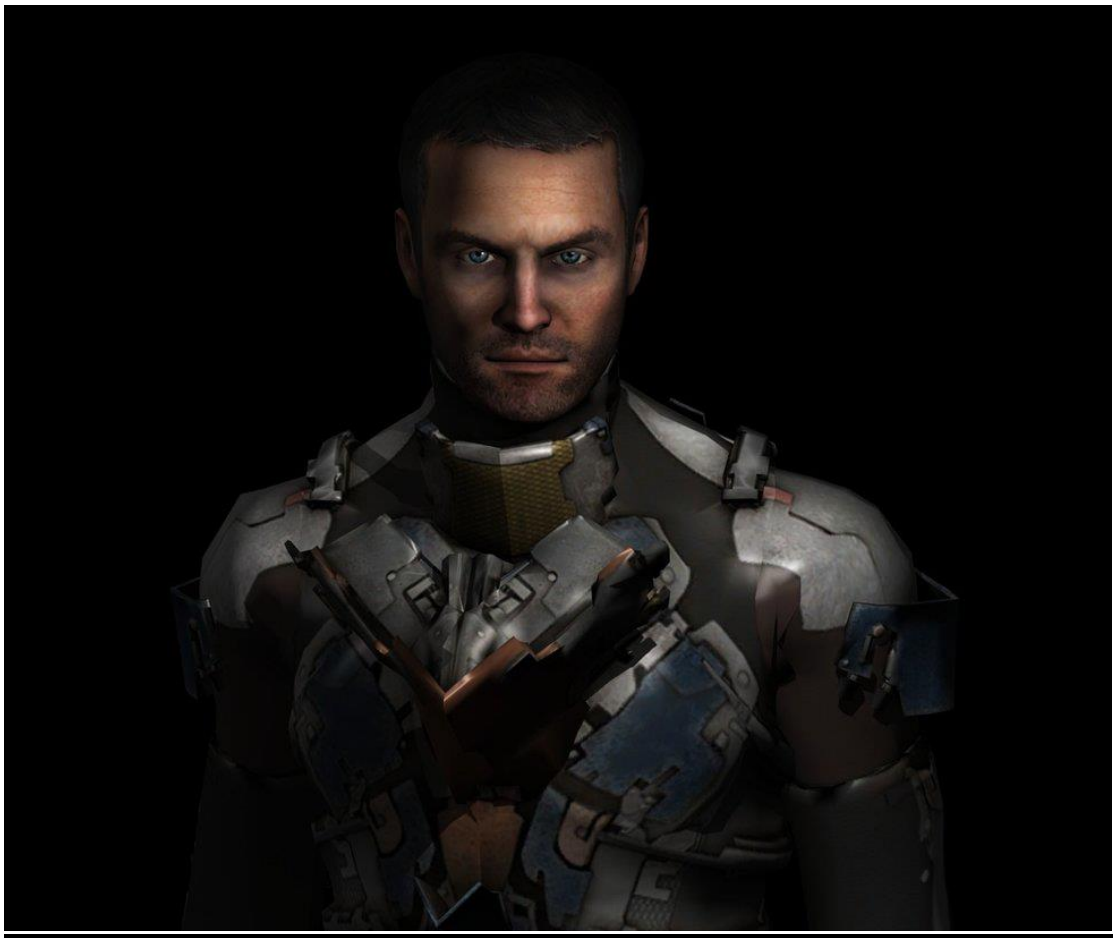

Figure 24. Portrait of Isaac Clarke lit using the Rembrandt technique.

It is possible to use two lights, replacing the reflector with a new light, but one must make sure to dim the second light down to more than half the strength, maintaining a high contrast between shadow and light.

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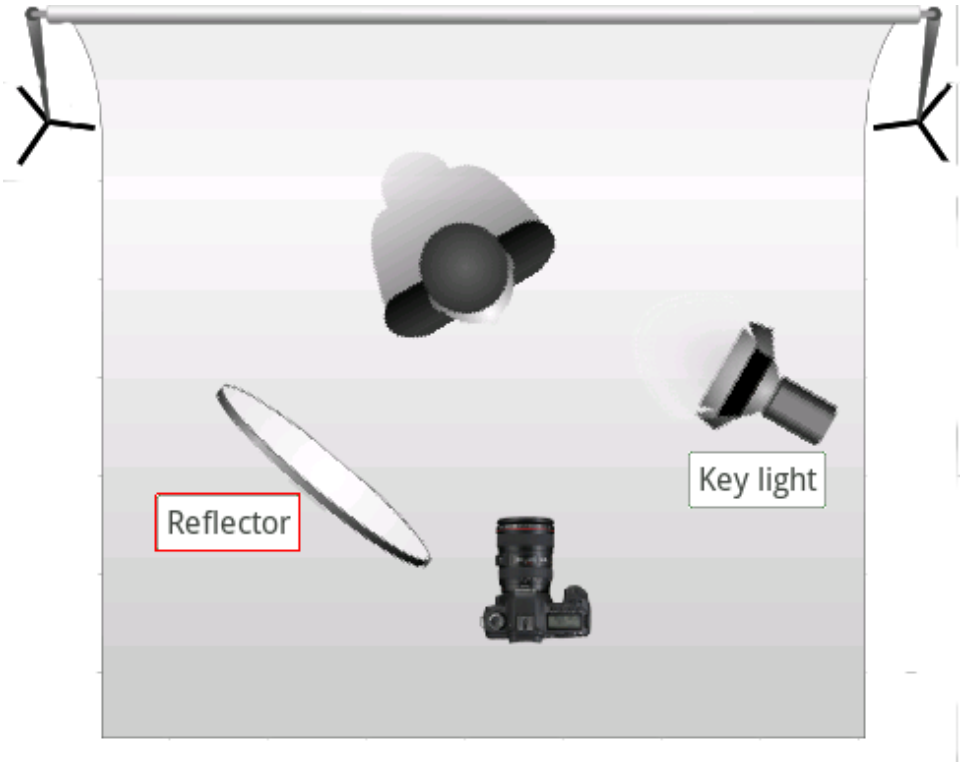

Figure 25. Rembrandt Setup

Slow Reveal

A common technique used to “up the ante” is the ‘slow reveal’: which can make the threat more formidable and frightening by not fully exposing it immediately. Silhouettes are often used to achieve this effect. The use of the slow reveal in the game allows for the gamers imagination to take over. In Chapter Four of the computer game, this technique, among others, is used to introduce a new Necromorph known as Stalker. Clarke, in his desperation to cure his dementia, finds himself getting closer to Daina – (Daina is the cult leader of a religious group called Unitology, Isaac is unaware of her status as he tries to find his way to Daina with promise of a cure for his dementia) But for him to get to Daina, he must get through one more sector: the *Church of Unitology,* about which he expresses his apprehension.

Daina (her name is a play on Diana, the Roman goddess of the hunt and the moon) eventually convinces him that it is the only safe place to meet. Making his way through hallways and corridors he comes upon a serene basilica. The beautiful

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sculptures in the basilica are set in strongly backlit Crepuscular[14] lighting. In CGI this would be known as volumetric lighting, something that tends to be exaggerated in most games today. However, in this scene the *Dead Space* lighting team make perfect use of the technique, by creating an angelic, saintly interior that seems to mock the hellish environment he is about to descend into. This will obviously impact how the gamer experiences and perceives this part of the game.

As Isaac enters the basilica, we get a glimpse of the monster in the dark; a quick movement silhouetted against the tranquil backdrop. As he descends, Isaac hears bird-like calls coming from both sides. As a gamer, the first impressions at this sequence, may be of the Velociraptor scene from *Jurassic Park* (1993). The Stalker's introduction follows very familiar horror tropes. The slow reveal, high key lighting, backlighting as the room's main source of illumination, the use of shadows to hide the monster, and the use of the monsters. It was interesting to note that the developers referred to the Stalkers as the "Velociraptors of *Dead Space*." The scenario plays out in a similar manner to the film, as Isaac gets near to the door in the centre of the basilica, it is smashed towards him from the other side by something very powerful. This is the first clue given by the developers of how this monster will attack the gamer .

Isaac makes a frantic call for help to Daina Li Guan. Daina is the voice in the beginning of the game that urged Isaac to run for his safety, she reassures him that she is able to open the doors remotely from her end. Isaac realises he is trapped – the hunter has her prey - and he has no choice but to make a stand. All the while shrieks and groans have been approaching. Isaac must now face a new kind of Necromorph. This then brings the audience to the next trope in horror, the monster. Stalkers are heavily evolved Necromorophs that bear little resemblance to their human and animal parts. They have a large exposed birdlike skull, the thick bone covered in small abrasions used for ramming its would-be victim. It has long extended arms with sharp talons that are used to impale and rend their victims, a large muscular back with a reinforced spine, which is exposed like the skull. Lastly the rib cage is split open, exposing some of the remains of previously vital organs (video clip 11).

[14] Crepuscular lighting (god rays)

Conclusion

There is a sense of deep cohesion when it comes to the uncanny, the abject and the sublime. “All seem to be hinged upon the idea of the boundary and a blurring, destruction, or destabilization of the categories it creates” (Baird). In *Dead Space 2* the game developers have employed various techniques to induce specific emotions of fear and horror by exposing the gamer to such notions as the sublime, uncanny and the abject. The game creates a desire to delve into one’s primal needs, by engaging the gamer subjectively into the game world. Chapter One shows that a thoughtful narrative structure is essential to engendering the sensations of horror and, as I have demonstrated, these narrative techniques draw heavily from literature as wide ranging as Greek and Roman Mythology, and Homer's *Iliad*. In addition, lighting and narrative techniques are intertextually referenced from great artists, including Rembrandt, Goya, and others. This illustrates just a few of the many influences that game makers take their inspirations from. We have seen that if the gamer is given the illusion that he or she can influence the narrative, that they may become immersed into the games narrative by becoming subjectively involved through game play. For this to happen the first and important element is to engage the gamer into a powerful narrative. Key techniques used are suspense, the seeking of answers (that in turn provoke anxiety), and the concealment of answers which evokes the sublime (Burke), inciting the gamer to seek out these answers. It is through the use of suspense that initially aids the gamer to experience sustained involvement in the game (Leffler and Carroll).

In Chapter Two I argue that the developers of *Dead Space 2* were attempting to make use of the Freudian uncanny and Julia Kristeva’s abject as tools to inspire horror. I postulate that both of these elements are important factors for the gamer to have a sublime-horror experience. The abject and the uncanny are aimed as a means to disrupt the gamer’s sense of self by deliberately putting the gamer outside of their comfort zone. When these combined elements are successfully engaged, the gamer finds them self immersed in that singular moment of game play, as they struggle to regain their own sense of self. It is because of the loss of such boundaries that the gamer becomes so intimately and subjectively involved.

However, instead of the gamer having a complete immersive horror experience the gamer becomes disengaged by means of the uncanny valley. Instead of the abject as it described by Julia Kristeva, there is what appears to be a double abject: the subject matter in the shape of the disfigured monsters, and the delivery in the shape of the poorly executed animations. This doubling breaks the horror induced by the abject themes by unintentionally distancing it too far from the familiar in the uncanny valley.

Yet there are moments that the game manages to hold true as a survival horror game. Immersing the gamer into a momentary belief that he or she is experiencing true horror. The sublime can inspire terror but also generates pleasure. Despite the illusory experience of facing harm (sublime horror) the gamer — is safe on his couch in his living room. It is the subject's ability to psychologically participate in the threat of imminent death that creates pleasure. It is this pleasure principle that drives the continuation of a horror game such as Dead Space 2. The appeal of such a game, one that suggests the guarantee of fear and terror, is the promise of reward with a sense of triumph.

In the last chapter I demonstrate one of the areas in which the game succeeds most fully. Utilising a dedicated team of lighting artists the designers successfully place the gamer into a scene resembling what makesfor a good horror film. It was for this reason that I chose *Dead Space 2*. The game designers show that good technical lighting can evoke powerful emotions, thus allowing the gamer a deeper immersion and a more realistic experience. However, lighting alone is inadequate if prior thought is not given to the psychological underpinnings of the game and how emotions can be provoked and manipulated within the gamer. Therefore it is only when all of the attributes the sublime, the uncanny and the abject are combined correctly, that the gamers experience of sublime horror is sustained.

One of the reasons for choosing Dead Space 2 was due to it having an entire team dedicated specifically to lighting. I theorise that these key elements, the sublime, the uncanny and the abject are vital ingredients to engage the gamer in his or her own sublime-horror experience.

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