

**Designing Digital Uncanny:**  
*A practical and theoretical game study*

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## **Abstract**

For my research presented in this thesis, I have taken a combined approach of theoretical analysis and informed practical application to further my understanding of digital uncanny.

Specifically, I have looked at how particular use of aesthetics, sound and gameplay in horror video games, could invite players to experience the uncanny. The uncanny is a phenomenon with a sensorial trigger, which is why the research is predominantly centred around visual and auditory stimuli.

I have approached this research considering Jentsch and Freud's interpretation of the uncanny, alongside Homi Bhaba and Anthony Vidler's writings on the unhomely. Literary theory has also been a strong underlying theme with reference to the carnivalesque and a literary approach to aesthetics in games.

I have tested my theories by creating a video game using the design elements discussed in the thesis. This video game was played by University of York Television, Film, Theatre and Interactive Media undergraduate students. The participants were invited to answer a series of questions to determine if the design had evoked an emotional response. They were not aware of the intention to prompt stirrings of uncanny but were told that the aim was to discover the potential of digital design to create emotional response.

The findings from this study have informed the written thesis and references to the work has been applied throughout.

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## **Declaration**

I declare that this thesis is a presentation of original work, and I am the sole author. The video game created for the purpose of this research has been created by me using free assets available on the Epic Games Marketplace. The sound for the video game was designed by sound designer, Rewan Leach. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

## Introduction

In 1906, Ernst Jentsch wrote *On the Psychology of the Uncanny*<sup>1</sup>, later cited by Sigmund Freud (1919) in his own paper titled, *The Uncanny*<sup>2</sup>. The uncanny and what it means as a concept is something born in language. It comes from the German word *heimlich* meaning *home*; thus, we have *unheimlich* obviously translating to *unhomely*. As Jentsch states, “without a doubt, this word appears to express that someone to whom something ‘uncanny’ happens is not quite ‘at home’ or ‘at ease’ in the situation concerned”<sup>3</sup>. Freud offers that “the semantic content that has accrued to the German word *unheimlich* [of which the nearest semantic equivalents in English are ‘uncanny’ and ‘eerie’, but which etymologically corresponds to ‘unhomely’] as the language has developed”<sup>4</sup>. Through the uncanny, and our perception of what we deem the uncanny in audiovisual experience, an uncomfortable distrust in our sense’s manifests.

Aristotle wrote, “by nature, all men long to know. An indication is their delight in the senses. For these, quite apart from their utility, are intrinsically delightful, and that through the eyes more than the others...sight is the sense that especially produces cognition in us and reveals many distinguishing features of things”<sup>5</sup>. Knowledge is a way that we can begin to fathom the world in which we find ourselves. Through sensorial input we can differentiate between the positive and negative interactions in life.

Consider then the importance of our sight and hearing for our perception of life, our place within, and how through memory we can store this information to recall when required in the future. Through sensorial input we can comprehend and memorise significant learned information crucial to understanding ourselves, and the world around us. On the most basic level, primitive skills and primal knowledge are how humankind existed and survived. The fear of the other, and by comparison love of your own, is a base and primal need intrinsic in tribal existence where to misperceive a threat could lead to annihilation. Uncanny exists in the twisted place between recognition and unrecognition, it allows you to perceive the familiar as unfamiliar. If you look into the face of a loved one, mother, lover, or child it’s likely you would feel love, calm, and relief. Should this loved one’s face distort and change, the eyes darken, the corners of the lips twist and curve upwards, a flicker of malice shiver across their features, this would open a wound where the uncanny could fester. Regarding uncanny, Jentsch writes how “the word suggests that a *lack of*

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<sup>1</sup> Ernst, Jentsch ‘On the Psychology of the Uncanny’, in *Angelaki: Journal of the Theoretical Humanities*, 2:1, pp 7-16

<sup>2</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003)

<sup>3</sup> Jentsch, Ernst, ‘On the Psychology of the Uncanny’, in *Angelaki: Journal of the Theoretical Humanities*, 2:1, pp 7-16, page 8

<sup>4</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 124

<sup>5</sup> Aristotle, *Metaphysics*, (New York: Penguin Books, 2004), page 4

*orientation* is bound up with the impression of the uncanniness of a thing or incident”<sup>6</sup>. Perhaps, the fear manifested by stirrings of uncanny is not a fear of the thing itself but is instead the fear that your perception has been manipulated.

The research presented in this thesis has attempted to recognise uncanny design traits lurking within video games of the horror genre, due to the links between horror and uncanny. To better understand this, I created a video game using Unreal Engine 4 [UE4] and other design software using approaches explored in this thesis I identified to be uncanny. The design process of this video game was informed by an in-depth analysis of audiovisual and gameplay elements in video games. These are: juxtaposition and the carnivalesque, psychological properties of colour and lighting, uncanny imagery drawn from Freud, uncanny sound, digital space, and gameplay.

My chosen methodology of research by creative practice is certainly not a new approach. It is a popular approach in arts-based disciplines and is explored within the human computer interaction field. Skains wrote of this methodology and appropriately sums up the approach, and my intentions behind choosing research by creative practice at the beginning of their paper.

Art, literary, music, and film analysts examine, dissect, and even deconstruct the art that we create in order to study culture and humanity, pulling the techniques and references and motivations apart to develop knowledge of how works of art relate to the culture and society in which they are produced, as well as to the development of particular art forms over time. Practice-related researchers push this examination into a more direct and intimate sphere, observing and analysing themselves as they engage in the act of creation, rather than relying solely on dissection of the art after the fact<sup>7</sup>.

I found this approach to be a useful way to understand the complexities of emotional response to digital design, and the intended and unintended results of technical design application. What this research has gained through this methodology is the informed perspective of theorist, player, and developer. Through this insight as the developer, the research has taken on a more three-dimensional shape. Furthermore, this approach allows us to begin considering frameworks for both video game theory and video game design and forms a useful contribution for both the scholarly space and video game industry.

My intention was to discover under what circumstances can uncanny impact a player, and how much of this is due to the design. Once I had completed the video game development process, I

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<sup>6</sup>Jentsch, Ernst, ‘On the Psychology of the Uncanny’, in *Angelaki: Journal of the Theoretical Humanities*, 2:1, pp 7-16, page 8

<sup>7</sup> R. Lyle Skains, ‘Creative Practice as Research: Discourse on Methodology, Media Practice and Education’ in *The Distrupted Journal of Media Practise*, 19:2018, pp 82-97, page 84

invited people to participate in a playthrough wherein they were asked to play the game I had created, and then complete a questionnaire.

The chapters, and the content, within this thesis are as follows.

Chapter one focuses on the background of uncanny in the Gothic and horror. Acknowledging Gothic literature, architecture, and the concept of *unhomely*, and horror cinema, moving onto an introduction to horror video games.

Chapter two begins with a close analysis of the selected video games from a narrative standpoint.

Chapter three concerns juxtaposition and the carnivalesque.

Chapter four discusses colour palette and lighting.

Chapter five discusses uncanny visual stimuli.

Chapter six discusses the sound design of these four games, and the importance of sound for uncanny horror experience.

Chapter seven covers architecture and environment, with strong references to Vidler and Bhabha's theories of *unhomely*, and uncanny architecture.

Chapter eight concerns interaction and immersion, specifically how combat is used as an immersive design tool.

Chapter nine introduces the video game I developed using Unreal Engine 4 [UE4]. In the beginning of this chapter, I ask that the reader views the video accompanying this thesis, before reading the findings I have uncovered through my project.

The thesis ends with a summary of my discoveries through the practical investigation of digital uncanny, exploring intentional and accidental uncanny design, and finally, presenting the conclusions of my work.



## 1 – Defining Uncanny

When we think of the uncanny there is one genre that traverses the subjective fields of literature and media, one in which the manifestation of the uncanny is easy to pinpoint due to subject matter and context. As Freud states, “there is no doubt that [the uncanny] belongs to the realm of the frightening, of what evokes fear and dread”<sup>8</sup>. It is no surprise therefore that the uncanny has found a comfortable home in the realm of horror. To develop a further understanding, let us consider the definition of the word *horror* meaning “an extremely strong feeling of fear and shock, or the frightening and shocking character of something”<sup>9</sup>. In the literary context the word *horror* “is a genre of fiction whose purpose is to create feelings of fear, dread, repulsion, and terror in the audience—in other words, it develops an atmosphere of horror”<sup>10</sup>. Philip J. Nickel writes that “sometimes art provokes outrage, fear, and disgust. In the case of horror, that is the point”<sup>11</sup>.

Horror is often used as a means by which political and social fears can be expressed and therefore recognised, discussed, and analysed. Mark Jancovich wrote that horror “has been concerned with the workings of power and repression in relationship to the body, the personality, or social life in general. These concerns will develop historically in response to changes in the workings of power and repression”<sup>12</sup>. The uncanny exposes underlining, prevalent fears in the perceiver and brings forth, as Schelling states, “something that should have remained hidden”<sup>13</sup>. Freud approaches the psychoanalytic theory, “that every affect arising from an emotional impulse – of whatever kind – is converted into fear by being repressed”<sup>14</sup> which he elaborates as being characteristic of the uncanny. Freud states how the transition from *homely* to *unhomely* brings forth the possibility that the uncanny prompt “is actually nothing new or strange, but something that was long familiar to the psyche and was estranged from it only through being repressed”<sup>15</sup>. This exposure of undesirable and uncomfortable truth which festers within the realms of horror and the uncanny, is an aspect I considered when designing the uncanny video game. This allowed me to better explore and understand the potential for aesthetics to incite the uncanny. Layers of perception, and the disturbing truth concealed beneath the surface, were overriding themes for choosing specific audiovisual stimuli in the creation of the artefact.

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<sup>8</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 123

<sup>9</sup> Cambridge English Dictionary, <<https://dictionary.cambridge.org/dictionary/english/horror>> [accessed 28/11/2021]

<sup>10</sup> Literary Terms, <<https://literaryterms.net/horror/>> [accessed 28/11/2021]

<sup>11</sup> Nickel, Philip J., ‘Horror and the Idea of Everyday Life’, in *The Philosophy of Horror*, ed. by Thomas Fahy, (Kentucky: The University Press of Kentucky, 2012), pp 14-32, page 14

<sup>12</sup> Jancovich, Mark, *Horror*, (London: B.T. Batsford Ltd, 1992), page 118

<sup>13</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 148

<sup>14</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 147

<sup>15</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 148

To better understand the uncanny in horror, and more importantly the design of digital uncanny experiences, we should first look towards the Gothic as a literary and art form. Existing in a place beyond the constraints of logic and physics, the Gothic is a flexible and malleable genre which subverts the boundaries of reality. In the same way that the uncanny plays with our perceptions of familiarity and haunts the perceiver with an unwelcome hostility polluting the homely comforts of life, the Gothic explores horrifyingly glorious imagery. Created with the intention to provoke, disturb, and unnerve, it is a genre full of intrigue and mystery. Gothic literary story tropes are known to explore subject matters and themes of a dark and macabre, often grotesque variety. Take this example from Horace Walpole's *Castle of Otranto* (1764), arguably the first Gothic novel. Manfred, Prince of Otranto, a wretched and deprived man, discovers the corpse of his son and heir crushed to death by a giant helmet.

Shocked with these lamentable sounds, and dreading he knew not what, he advanced hastily,—but what a sight for a father's eyes!—he beheld his child dashed to pieces, and almost buried under an enormous helmet, an hundred times more large than any casque ever made for human being, and shaded with a proportionable quantity of black feathers<sup>16</sup>.

The spectacle of a giant helmet falling from the sky and crushing an only heir of a prominent castle is stereotypical of Gothic literary imagery. Gothic tales often merge the fantastical, deprived, and wretched. Alfred E. Longueil discusses the lingual connotations of the word 'Gothic', and determines it to mean both barbaric, and refer to mediaeval<sup>17</sup>. A Gothic tale of the mediaeval setting is expected to be centred in "lonely castles, haunted towers, subterranean passages, knights in armor, magic"<sup>18</sup>. Walpole's tale certainly possesses both interpretations of Gothic in the barbarism of the tale and the setting.

The Gothic did not begin in the literary realm, however. In 9th Century Paris, Abbot Suger reconstructed the St.-Denis<sup>19</sup> abbey seemingly unintentionally into what would become an iconic form of Gothic architecture.

To better understand the parameters of Gothic architecture we should look at the intentions of construction beyond religious aspects, in particular the design. John Hendrix's *The Splendor of English Gothic Architecture*, explains what it means for these buildings to be deemed Gothic. He wrote that, "consistently throughout the development of English Gothic architecture, there is an

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<sup>16</sup> Walpole, Horace, *The Castle of Otranto*, (Edinburgh: James Ballantyne & Co, 1811), page 7

<sup>17</sup> Longueil, Alfred E. 'The Word 'Gothic' in Eighteenth Century Criticism' in *Modern Language Notes*, 1923:38, pp. 453–60.

<sup>18</sup> Longueil, Alfred E. 'The Word 'Gothic' in Eighteenth Century Criticism' in *Modern Language Notes*, 1923:38, pp. 453–60, page 458

<sup>19</sup> Frankl, Paul, *The Gothic, Literary Sources and Interpretations through Eight Centuries*, (New Jersey: Princeton University Press, 1960)

intention in the architecture to express a poetic idea through the juxtaposition of non-structural geometries with the structural geometries of the architecture. Its characteristic ‘handwriting’, the linear networks, surface patterns, geometrical articulations, and spatial interpenetrations contribute to the creation of an architecture in which form contradicts function, resulting in a poetic expression”<sup>20</sup>. There are many characteristics of Gothic architecture such as rose windows, stained glass windows, and looming double overlapping arcades which produce the domineering pointed arches. It is worth noting here that a synonym for the word *horror* is *awe*<sup>21</sup> and Gothic architecture in its magnificent form, is most definitely awe-inspiring.

Anthony Vidler and Homi Bhabha, writing in the 1990’s, discuss gothic architecture within their writings on the concept of unhomey. Vidler’s writing centres around the unhomey element of the uncanny, and contemporary buildings and the applications of the uncanny to modern unliveable conditions. Concerning Gothic literature, Vidler wrote how “by far the most popular topos of the nineteenth-century uncanny was the haunted house. A pervasive leitmotiv of literary fantasy and architectural revival alike, its depiction in fairy tales, horror stories, and Gothic novels gave rise to a unique genre of writing”<sup>22</sup>. Bhabha introduces the idea that ‘unhomey’ relates more to a metaphorical sense of disassociation or non-recognition of one’s home rather than the literal evacuation of home<sup>23</sup>. Both theorists explored the ways in which the physical setting of the home can present as uncanny, and sociological foundations of the unhomey.

Equipped with the tools readily made by the mass of Gothic works that came before, the step into horror cinema came with little to no resistance and in fact moulded the genre into something much more striking. Directors took the bold imagery and elements which had been firmly rooted in the genre and created a visual spectacle which held more potential for provocation than the written word previously possessed. For Mark Jancovich, “it was in the cinema that the horror genre proved most popular and influential. It was through the cinema that figures such as Frankenstein and Dracula found an international audience”<sup>24</sup>. This is not to say that horror literature became redundant, with the step into horror cinema came the movement of a boundary which allowed the reader to become the spectator. Although the German Expressionist works in the 20th Century such as *Nosferatu* (1922), *The Cabinet of Dr Caligari* (1920), *The Student of Prague* (1913) and *The Golem* (1920) were renowned for their iconic early expression of the Gothic in film, director George Méliès is believed to have created the first horror cinematic experience. *Le Manoir du Diable* or, *The House of the Devil* (1896), is a three-minute short, it features conjuration, demons, and religious symbology,

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<sup>20</sup> Hendrix, John, *The Splendor of English Gothic Architecture*, (New York: Parkstone, 2014), page 7

<sup>21</sup> Thesaurus, <<https://www.thesaurus.com/browse/horror>> [accessed 28/11/2021]

<sup>22</sup> Vidler, Anthony, *The Architectural Uncanny*, (Massachusetts: The MIT Press, 1992), page 17

<sup>23</sup> Bhabha, Homi, ‘The World and the Home’, in *Social Text*, 1992: 31/32, pp. 141–53

<sup>24</sup> Jancovich, Mark, *Horror*, (London: B.T. Batsford Ltd, 1992), page 53

all stereotypical of Gothic and horror fiction. As the genre was adopted by filmmakers, the ways in which uncanny has been explored in Gothic and subsequent horror media has changed. Uncanny used to reside in the mind, conjured by imagery that had been prompted by word alone. However, as we traverse into the realm of digital media the boundaries have widened and therefore the possibilities have become near endless. Sound, space, and environment have all become available with the shift from word to screen, now vital tools in the provoking of uncanny.

Consider Robert Wiene's 1920 silent horror film, *The Cabinet of Dr Caligari* and the incredible psychological impact created by the aesthetic design choices of the lighting, set, props and actors. Within this film there are numerous examples of abstract surrealism, the dimensions and levels add angles and layers which unsettle and unnerve as they subvert the expectations of domestic objects such as chairs, houses, and desks in proportion to the actors. The actors themselves have elongated limbs and bodies, appearing grossly disproportionate against the staging and props. For example, the character Alan, in the opening scene of Francis's tale, stands reading next to a chair that nearly reaches his shoulder in height. This warped effect appears throughout the staging and aesthetic of the film and is particularly striking with the angular, off-centred homes which both loom and lean in an eerie manner. This element of visual design recalls the concept of unheimlich as uncanny.

It is unsurprising that sound has become a prominent feature in establishing feelings of uncanny, considering the potential for emotion and sensation sound design enables an audience to experience. From a psychological perspective, there has been a wide range of musicology theories and research approached regarding the emotional potential of music. When we consider the potential for fear in a horror soundscape, there are obvious tools of the trade which have been adopted for creating tension and apprehension typical of horror media. Music can also be used for emphasis and to encourage the audience to participate in the scene on a subconscious level. For example, the dissonant and discordant screeches of the string instruments in the infamous shower slasher scene from Alfred Hitchcock's *Psycho* (1960) accentuate the knife slashes in an uncomfortably enticing manner. Alf Gabrielsson presents previous examinations of the emotional effect of music, concluding with his own interpretations of emotion provoked through music. He discusses Scherer, Zentner, and Schacht, and their conference in which they invited 98 musical experts to reveal their personal experiences regarding a piece of music that prompted a strong emotional response in them. He states that, "the responses were coded into a number of categories: physiological symptoms (increased heart rate, shivers, goose bumps, etc.); expressive behaviour (eye symptoms, i.e. tears); motivation/action tendencies (e.g. urge to move, feel energized, focused attention); and subjective feeling, divided into specific feeling, unspecific feeling, basic emotions, arousal/calm, valence, and

ambivalent feelings’’<sup>25</sup>. This study concluded that any achieved emotional response is a personal experience and is often singular to an individual based on their own social backgrounds.

The above survey identified that music holds the potential to provoke an emotional response, but that it is a singularly individual experience. In much the same way, the uncanny draws on a psychological and emotional response in an individual, but the response will vary from one person to another. Jentsch states in his essay *On the Psychology of the Uncanny*, “no attempt will here be made to define the essence of the uncanny. Such a conceptual explanation would have very little value. The main reason for this is that the same impression does not necessarily exert an uncanny effect on everybody’’<sup>26</sup>. Summarising Jentsch, Freud outlines that “one of the difficulties attendant upon the study of the uncanny, the fact that people differ greatly in their sensitivity to this kind of feeling’’<sup>27</sup>. Freud mentions that he himself is not all that easily affected by the notions and sensation of the uncanny as perhaps others may be<sup>28</sup>, although he does discuss later in his essay an instance where he became affected by the uncanniness of repetition<sup>29</sup>. It is intriguing that this need for individual circumstance and experience is required to prompt both emotion in music, and stirrings of the uncanny. Aural uncanniness is a phenomenon in which sound explicitly entices uncanniness through the warping of a familiar sound to create something still recognisable of the original form, but also noticeably different. Mark Grimshaw discusses the potential for the uncanny to manifest through audio in his article, arguing that “the uncanny is created through the process of making the familiar strange...it is this defamiliarization of a mundane sound – the distortion of a sound that yet retains its broadly recognizable original form and purpose – that leads to the uncanny’’<sup>30</sup>. I would like to propose that the uncanny is a phenomenon created through the manipulation of the senses which prompts fear through distrust in our base, primal receptors of threat.

Freud wrote “only rarely does the psychoanalyst feel compelled to engage in aesthetic investigations, even when aesthetics is not restricted to the theory of beauty but described as relating to the qualities of our feeling’’<sup>31</sup>. Aesthetics are vital for the overall sensation and emotion that a video game incites in a player. The visual design of a video game is one of the main elements which

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<sup>25</sup> Gabrielsson, Alf, ‘Strong Experiences with Music’ in *The Handbook of Music and Emotion: Theory, Research, Applications*, ed. by Patrik N. Juslin and John A. Sloboda, (Oxford: Oxford University Press, 2010), Page 4

<sup>26</sup> Jentsch, Ernst, ‘On the Psychology of the Uncanny’, *Angelaki: Journal of the Theoretical Humanities*, 2:1, pp 7-16, page 8

<sup>27</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 124

<sup>28</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 124

<sup>29</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 142

<sup>30</sup> Grimshaw, Mark, ‘The audio Uncanny Valley: Sound, fear and the horror game’, *Games Computing and Creative Technologies: Conference Papers (Peer-Reviewed)*, paper 9, page 3

<sup>31</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 123

will make it the fearful experience associated with horror and could help in understanding uncanny video games.

Friedman surmised that although there was a wealth of scholarly material regarding video game design, the aesthetical properties of visual design were not as widely explored.

Friedman terms visual design as “the creation of images for a game”<sup>32</sup>, and comes with an attempt to “understand what type of analysis and creative process is appropriate to game design in order to create a visual analysis for games”<sup>33</sup>. Friedman notes how “the visual analysis criteria should be dynamic, rather than static, like the old systems of aesthetic examination”<sup>34</sup>. He discusses the relationship between the genre and visual design, rather than the psychological or emotional impact of specific visual design elements such as lighting, temperature, colour and sound. Although relevant to the academic study of visual design in video games, Friedman’s approach does not consider aesthetics in video games from both the practical and theoretical approach necessary for this research’s study of the how and why in visual design.

Simon Niedenthal states how the terminology surrounding aesthetics in game design leads to three distinct views of meaning, a model this thesis also adopts. Niedenthal recognises there are studies that lay outside of these three categories; however, he states that in academia game aesthetics:

1. refers to the sensory phenomena that the player encounters in the game (visual, aural, haptic, embodied).
2. refers to those aspects of digital games that are shared with other art forms (and thus provides a means of generalizing about art).
3. is an expression of the game experienced as pleasure, emotion, sociability, formgiving, etc (with reference to” the aesthetic experience”)<sup>35</sup>

Niedenthal states that “game aesthetics is not linked to any one critical framework. There are no analytical tools that are inextricably bound to game aesthetics at present”<sup>36</sup>. In this case, I am

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<sup>32</sup> Friedman A. ‘The Role of Visual Design in Game Design’, in *Games and Culture*. 2015:10, pp 291-305, page 291

<sup>33</sup> Friedman A. ‘The Role of Visual Design in Game Design’, in *Games and Culture*. 2015:10, pp 291-305, page 292

<sup>34</sup> Friedman A. ‘The Role of Visual Design in Game Design’, in *Games and Culture*. 2015:10, pp 291-305, page 293

<sup>35</sup>Niedenthal, Simon, ‘What We Talk About When We Talk About Game Aesthetics’, in *Breaking New Ground: Innovation in Games, Play, Practice and Theory*, 2009, Page 2

<sup>36</sup>Niedenthal, Simon, ‘What We Talk About When We Talk About Game Aesthetics’, in *Breaking New Ground: Innovation in Games, Play, Practice and Theory*, 2009, Page 3

inclined to agree. Throughout my own attempts to define the way in which aesthetics can be analysed not only from a theoretical perspective as a researcher, but from the personal aspect of the player and the practical application of the designer I have struggled to find an approach which fits my methodology.

In this research I focus on the following questions regarding video game aesthetics: what are the sensorial properties within the design choices of colour, lighting, temperature, and sound? What is the intention of the design, what does it symbolise, denote, and indicate, and how does it do this? Finally, what are the emotive properties of these design elements? These are questions embedded within literary theories concerning the arts and humanities, through theorists such as Roland Barthes, Mikhail Bakhtin, and Edmund Burke.

This thesis presents a theoretical exploration into audiovisual elements creating a psychological response, in this instance the uncanny, and the practical application thereof, so an exploration of literary theory regarding aesthetics is appropriate through analysis of artistic concepts, expressions and elements in textual work. An analysis of aesthetics is therefore appropriate to explore the ways in which visual design can prompt psychological experience in video games.

## 2 – Uncanny Video Games

There has been extensive previous research in the realm of horror video games, giving my research a sturdy and accessible platform to work from. The uncanny has been discussed within the realm of videoludic horror studies. One game which has gained exposure is the renowned Silent Hill series. Konami began releasing this series in 1999 and has since released multiple sequels.

Bernard Perron discusses the Silent Hill games in reference to the enemies and their uncanny behaviour, appearance, and movement. He quotes Masahiro Ito, designer for the monsters in the first three games within the chapter of his book concerning monsters in horror games. This quote is, “my basic idea in creating the monsters of Silent Hill 2 was to give them a human aspect...I proceed to undermine this aspect by giving weird movement to these creatures and by using improbable angles for their bodies”<sup>37</sup>. The uncanny phenomena discussed here is not singularly the aesthetical study concerning Jentsch and Freud, but is another theory first introduced by the roboticist Masahiro Mori in 1970, I uncanny valley<sup>38</sup>. Mori’s uncanny valley theorised how artificial humanoid representations can create unfavourable psychological responses. The closer something becomes to an actual representation of a human, the more we distrust it, before tipping the balance and becoming tolerable. Both Jentsch and Freud explored the notion of uncanniness found in “waxwork figures, ingeniously constructed dolls and automata”<sup>39</sup>, and other such human-like inanimate objects. Jentsch references this uncanny connection to be “doubt as to whether an apparently living being is animate and, conversely, doubt as to whether a lifeless object may not in fact be animate”<sup>40</sup>. Freud references this point in his paper, stating that “while not wholly convinced by the author’s arguments, we will take them as a starting point for our own investigation”<sup>41</sup>. Although Freud was not fully convinced by Jentsch’s original argument that human-like inanimate objects are uncanny, he did consider this point in his own investigations of this regard. This once again reminds us that the sensation of the uncanny can be prompted through manipulation of perception, something which can be harnessed in the development of a video game to intentionally manifest the uncanny.

It is worth noting at this point the presence of horror games with a science fiction setting, it is through these games that we explore the uncanniness of repetitive spatiality. Spatiality, from the Latin ‘spatium’ for space, refers to the physical space. In the sense of repetitive spatiality, Freud

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<sup>37</sup> Perron, Bernard, *The World of Scary Video Games: A Study in Videoludic Horror*, (New York: Bloomsbury Academic, 2018), page 357

<sup>38</sup> Mori, Masahiro & MacDorman, Karl & Kageki, Norri. ‘The Uncanny Valley [From the Field]’, in *IEEE Robotics & Automation Magazine*, 19:2012, pp 98-100.

<sup>39</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 135

<sup>40</sup> Jentsch, Ernst, ‘On the Psychology of the Uncanny’, in *Angelaki: Journal of the Theoretical Humanities*, 2:1, pp 7-16, page 11

<sup>41</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 135



writes of how the uncanny manifests in “repetition of the same thing”<sup>42</sup>, stating how from his “own observations it undoubtably evokes such a feeling under particular conditions”<sup>43</sup>. These conditions alongside “a feeling, moreover, that recalls the helplessness we experience in certain dream-states”<sup>44</sup>, can certainly be associated with the repetitive looping environments which a player finds themselves situated in horror science fiction. Sloan<sup>45</sup> discusses the uncanniness of nostalgia in the *Alien: Isolation* (2014) video game, where he refers to this link between futuristic environment and Freud’s repetition. Freud discusses this uncanniness of repetitive space writing how it “forces us to entertain the idea of the fateful and the inescapable”<sup>46</sup>. Sloan writes “just as Freud described the uncanny sense of drawing attention to oneself by continually returning to the same places, so too does the player fear that their spatial disorientation will attract the Xenomorph”<sup>47</sup>.

For my research by creative practice study, I am particularly interested in games that do not present themselves in the usual ways that uncanny horror has been considered in previous academic study. Therefore, the particular focus is on specific video games, whilst occasionally drawing upon others. The four games of particular interest are *Plague Tale: Innocence* (2019), *Layers of Fear* (2016), *Little Nightmares* (2017) and *We Happy Few* (2016). I chose these games due to my perception of their uncanny elements, whether by audiovisual design, narrative and/or interactivity. Throughout the sections analysing these video game elements, there is more content on some of the chosen games than others, for example, *Layers of Fear* is unpacked heavily in the narrative section due to the Gothic and literary undertones. This is due to the relevance of the design elements in the games, rather than the games themselves.

Rather than remaining with the conceptual and literary analysis of these games, I have considered the design from a practical standpoint. The analysis unpicks not only why these video games are uncanny to me, but how it may have been achieved. I chose to approach the analysis of these games from a literary perspective, using tools like the close reading practice in literary studies.

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<sup>42</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 143

<sup>43</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 143

<sup>44</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 143

<sup>45</sup> Sloan, Robin, 'Homesick for the unheimlich: back to the uncanny future in *Alien: Isolation*', in *Journal of Gaming and Virtual Worlds*, 8:2016, pp. 211-230

<sup>46</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 144

<sup>47</sup> Sloan, Robin, 'Homesick for the unheimlich: back to the uncanny future in *Alien: Isolation*', in *Journal of Gaming and Virtual Worlds*, 8:2016, pp. 211-230, page 18

I shall now describe the main plot features within the texts of interest: *Plague Tale: Innocence*, *We Happy Few*, *Little Nightmares*, and *Layers of Fear* in order to situate the reader in preparation for the design analysis to come. I chose to analyse these specific games as I identified, what I felt to be, uncanny design elements within them. By understanding how and why these elements are, uncanny, I was able to incorporate them in my own explorations into digital uncanny design. This choice again relates to the personal experience ingrained in that relation to uncanny feeling. I am not arguing that all players may find these choices uncanny but that myself as the gamer, researcher and developer found aspects of the design of these games to be uncanny. Each game has fed into the creation of my video game. The way these elements were incorporated into the design process, is presented in the chapter concerning the development process of my uncanny game. The narrative is a key factor to consider when analysing video games, it often sheds light on the context behind design choices. Therefore, I am beginning the analysis with a brief overview of narrative traits and undertones present within these four games.

Asobo Studios *Plague Tale: Innocence* is a third person action-adventure horror game. It is a macabre and sombre tale about the literal and metaphorical, multifaceted journeys of high-born siblings, Hugo and Amicia De Rune. In a plague ravaged, fantasy representation of 14<sup>th</sup> Century France Amicia finds herself fleeing her family home with the young boy in tow following the invasion of the British Inquisition. The player discovers imminently that Hugo possesses a non-contagious, fast spreading blood disease. Accompanying the widespread plague and the Inquisition, France is swarmed by hordes of vicious, blood thirsty rats.’

As the game progresses, the player experiences the rich, gruesome detail which places the piece firmly into the horror realm. From crow picked corpses dangling from structures illuminated in moonlight, to writhing shadows made up entirely of convulsing rodents, to wading through pools of decomposed biological matter, the game is not lacking in evidence of horror. Without the repulsive imagery or the vulnerability evoked by child protagonists and other game design choices *Plague Tale: Innocence* would be a standard action-adventure game.

Fear and terror are an important base feature of horror, *Plague Tale: Innocence* uses this fear through the integration of some known phobias. Musophobia<sup>48</sup>, or the fear of mice and rats, is a primal and base instinct which history has ingrained into the human psyche due to widespread infections such as the Bubonic plague. Rats alongside other rodents often symbolise disease and death in horror fiction. Fear of disease is apparent in sufferers of Dermatophobia, fear of skin

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<sup>48</sup> Adamac, Christine, Doctor M. Ronald, Kahn, P. Ada, PhD, *The Encyclopedia of Fears, Phobias and Anxieties*, (New York: Facts on File, 2008), page xvii

lesions; Pyrexophobia, fear of fever; Molysmophobia, fear of contamination<sup>49</sup>. Although not specific to the fear of being hunted, Scopophobia, the fear of being watched<sup>50</sup>, is another phobia which we see manipulated in *Plague Tale: Innocence* where survival is hinged on the ability to sneak and evade the enemy.

Released for early access in 2016, Compulsion Games' *We Happy Few* explores the paradoxical phenomena of utopia turned dystopia, and presents the uncanny horror of a broken, unhinged and decaying society. This uncanny element in a decaying society can be relayed back to the crucial point that, as Freud points out, "the uncanny is that species of the frightening that goes back to what was once well known and had long been familiar"<sup>51</sup>. Set in a retro futuristic post-war England, *We Happy Few* is a strange drug-fuelled journey of morbid discovery. Players take on the role of Arthur Hastings from a first-person perspective. Arthur's job role is to redact incoming articles to remove any material which may be conceived as upsetting to the public. As he is working an article arrives featuring himself and his brother as children, this triggers a repressed memory. *We Happy Few* experiments with a pharmaceutical substance called Joy, a pill which removes the collective memories of those who reside in the fictional world of Wellington Wells. Substance abuse is an elemental and driving influence for the *We Happy Few* narrative, it is also a prominent feature in horror which has been explored in a myriad of ways. Without background or context, the player is given a choice: to take the Joy or not. I argue this gameplay element is a veiled attempt to show the player how little choice they possess moving forward and establishes the whole point of *We Happy Few*: to help Arthur remember. If the player chooses to throw away those little red pills Arthur's world begins to dissolve into a stark, bleaker reality. The aim of the game hereafter is simple, to survive and to remember, although these significant tasks are not particularly easy to accomplish in themselves.

Bloober Team's *Layers of Fear* released in 2016 has strong features of the Gothic woven throughout. This is explored differently to the Gothic textures and aesthetics in *Plague Tale: Innocence*. *Layers of Fear* explores key Gothic narrative traits: haunted mansion, possessive male, victimised female, and wronged spirits. It is a first-person, psychological horror in which the narrative dominates the gameplay significantly, even to the extent of altering the ending to create three different resolutions. The player takes the form of a deeply troubled painter with a twisted, horrifying backstory, as he struggles to create the magnum opus which haunts his entire mind, body and soul. He becomes obsessed with the creation of this painting, to the point of using parts of

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<sup>49</sup> Adamac, Christine, Doctor M. Ronald, Kahn, P. Ada, PhD, *The Encyclopedia of Fears, Phobias and Anxieties*, (New York: Facts on File, 2008), page xvii

<sup>50</sup> Adamac, Christine, Doctor M. Ronald, Kahn, P. Ada, PhD, *The Encyclopedia of Fears, Phobias and Anxieties*, (New York: Facts on File, 2008), page xvii

<sup>51</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 124

human and animal anatomy through ill begotten means. The player must guide this troubled, and at times deranged, artist on six loops of his ever-changing mansion. This is a particularly interesting example due to heavy visual symbology denoting the crumbling physical and mental health of the protagonist and mansion in which they are entombed. The complex relationship between the maddened painter which the player adopts, and the oppressive structure which they are tasked with navigating presents a symbiotic bond between the mental and physical world.

Walking simulators such as *Layers of Fear* are centred around the exploration of a digital space with emphasis on the narrative. It is rare to find a walking simulator that has active and combative gameplay. Interaction is usually a strong element of this subgenre, and the player is often tasked with interacting with the environment to gain further understanding of the world they have entered. Collectable items within the digital environment allow the player to uncover the narrative. *Layers of Fear* uses this process to prompt short memories as the player discovers items such as photos, drawings, and letters. It is revealed that the painter and his wife had once been happy, eventually they have a child which is received with gratified acceptance by the wife and at times the painter himself. It is worth noting here that even from the engagement, the painter wished to possess his wife. The first collectible, a ring, triggers the spoken dialogue: “the thought alone that the most beautiful piece of art doesn’t have my name on it is killing me. So, will you marry me?” The tale becomes dark and the rot which remained hidden begins to rise to the surface. Following a fire, at the fault of the painter, the wife becomes disfigured and scarred which begins to further the chasm in their marriage. The painter falls deeper into self-abasing depravity and the wife begins to see how her husband’s perception has transformed her into a monster. Resentful and hurt she vows to realise her husband’s fantasy and become the monster he sees in her.

Throughout the game, the player uncovers further evidence of the crumbling state of the marriage, the hatred that has manifested and the furthering descent into alcoholism and mental instability that the painter falls prey to. We also discover through the contextual reading of some of the letters, notes and in the painter’s behaviour that he suffers from schizophrenia. The marriage comes to an unfortunate and tragic end with the wife killing herself, subsequently the daughter is taken by social services. The player joins the painter as he searches his home for the six objects, he believes he needs to complete his magnum opus. The player journeys through this cold, Gothic mansion, uncovering evidence of this toxic past through the eyes of a deranged, traumatised schizophrenic. The objective is to find skin for a canvas, blood for the paint, bones ground to a powder, human hair for a brush, a finger for final touches and an eye to witness his greatest work. This deprived imagery and narrative twist recalls Edgar Allen Poe’s iconic Gothic works. *Berenice* (1835) is a disturbing and provocative piece which is rife with the grotesque imagery presented with disease and decay. As Berenice becomes riddled with her mysterious disease her body begins to decay, in turn Egaeus’ already tormented mind becomes further corrupted with the mental disease he was born afflicted

with. In fact, the entire short story centres around this complete decaying of Berenice's flesh leaving only her teeth as a reminder of who she once was. "True to its own character, my disorder revelled in the less important but more startling changes wrought in the physical frame of Berenice –in the singular and most appalling distortion of her personal identity"<sup>52</sup>. By the time Egaeus has dug up the grave to retrieve these teeth, it can be argued that he himself has succumbed to an unrelenting rot which had set in his mind the moment she first became sick.

Another strong literary reference woven throughout the dark narrative of *Layers of Fear* is *The Picture of Dorian Grey* (1890). There are multiple copies of this text scattered around the painter's mansion, and the painter himself presents elements of a psyche like Dorian Grey. In fact, one of the three endings for *Layers of Fear* is the completion of a self-portrait, this is the only ending which has a positive outcome. The two alternative endings however lead to either a perpetual circuit of the game itself, or the burning down of the family mansion with the painter's demise amongst the flames. *The Picture of Dorian Grey* presents a young, spoiled man who keeps a self-portrait which ensures he never ages, regardless of the detestable character he becomes. The painting adopts all the ageing and decaying traits which Dorian would have become inflicted with due to the life he leads and the choices he makes. This idea of a painted double suggests Freud's depiction of the uncanny seeping through the image of a double. Summarising Hoffmann, regarding the ego relative to this idea of an uncanny double, Freud discusses how "the double has become an object of terror"<sup>53</sup> due to "disturbances of the ego"<sup>54</sup>. Dorian Grey removes conscience from the equation by separating this aspect of himself, the element of his psyche which allows morality to restrain his actions. As Freud states when discussing the role of the ego "by slow degrees a special authority takes shape within the ego; this authority, which is able to confront the rest of the ego, performs the function of self-observation and self-criticism"<sup>55</sup>. Without this element of the psyche a monster is born, in Dorian's case this monster takes the form of the unholy monstrosity that his self-portrait morphed into. In the case of the painter from *Layers of Fear*, it is only in the creation of this painted double that he can continue with life. It is therefore interesting that the escape from madness for the painter is only unlocked through the separation of his conscience born through the severing of his guilt-ridden memories of pain and harm he inflicted upon his late wife. This brings to the surface this same societal aspect of the uncanny which has been explored in the fragile, broken society present within *We Happy Few*, failed societal protection of the children in *Plague Tale: Innocence* and in the case of Six from *Little Nightmares*.

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<sup>52</sup> Poe, Edgar Allan, 'Berenice', *The Works of Edgar Allan Poe*. Lit2Go Edition, <<https://etc.usf.edu/lit2go/147/the-works-of-edgar-allan-poe/5230/berenice/>>

<sup>53</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), Page 143

<sup>54</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), Page 143

<sup>55</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), Page 142

Bandai Namcos' *Little Nightmares* (2017) is a third-person video game which centres around the small and doll-like child protagonist, Six. Visually and symbolically, it is rich with the uncanny and Gothic elements. The design strongly resembles that of the German expressionists, with the shifting, warped environments, and elongated bodies. *Little Nightmares* uses digital space and environment in an intriguing way, often using the space to emphasise negative emotion. The claustrophobic tunnels juxtapose the intimidating open spaces and use of lighting in the design also emphasises the oppressive nature of the game's environment. The aim of the game is to help Six traverse the mysterious iron vessel, the Maw, with no tools of protection to begin with, other than the ability to hide and evade. Unlike our previous examples, *Little Nightmares* uses a puzzle-based style of gameplay, emphasising the vulnerability (and cunning) of the child protagonist.

Six is an interesting character with a twisted, hypocritical nature which is slowly revealed as the game progresses and in the downloadable content game *Secrets of the Maw* (2017). Whilst seeking her own refuge and escape from the monstrous inhabitants of the Maw, the player discovers that Six is not necessarily the vulnerable victim that the opening scene indicates. Six wakes from a disturbed nightmare involving a tall, slender woman whose face is covered in a porcelain white mask, who we later discover is the final boss, the Lady. The game begins with Six stirring from her troubled slumber in an open suitcase within one of the claustrophobic, metallic rooms. As the player travels through the Maw, they discover the crippling hunger that Six suffers from. This hunger is initially satiated by bread gifted from another wretched child prisoner; however, this hunger eventually graduates to cannibalism, with the final act seeing Six gain a carnivorous soul leaching power which leads to her escape. This game shall be unpacked further in the chapter concerning juxtaposition and carnivalesque themes within uncanny video games.

Understanding the narrative of a video game allows us to further understand the context in which the uncanny can situate itself. We can determine whether there are underlying themes and tones which are relevant to the manifestation of the uncanny. To briefly summarise, in the case of *Layers of Fear* we see evidence of connections between the painter and the iconic Dorian Gray whose essence resides in his decaying portrait. Through this association, we can tie in Freud's theories regarding the uncanniness of the double which is present in the self-portrait, reflections, and ego. *We Happy Few* incorporates symbolism characteristic of Carrol's *Alice in Wonderland*. Carrol's tale is an amalgamation of Freud's uncanny tropes with references to psychedelic dream-like states, "magic...the omnipotence of thoughts, unintended repetition"<sup>56</sup> and uncertainty of self. *Little Nightmares* allows us to explore the uncanniness of juxtaposition and the carnivalesque when we consider the uncanny subverting expectations or acting outside of the predetermined norm. Finally, *Plague Tale: Innocence* explores the uncanny disturbances which are felt in response to disease and

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<sup>56</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), Page 149

decay, whilst once again subverting the expectation by using child protagonists. This is of course a summary, and by no means covers the extent in which the narrative tropes can aid in creating an uncanny experience.

Now that we have considered the narrative context in which the uncanny resides within these four games, in the following sections I discuss the audiovisual, spatial, and gameplay elements of these texts and consider their relationship with ideas of juxtaposition and carnivalesque.

### 3 - Uncanny juxtaposition and the carnivalesque within video game design

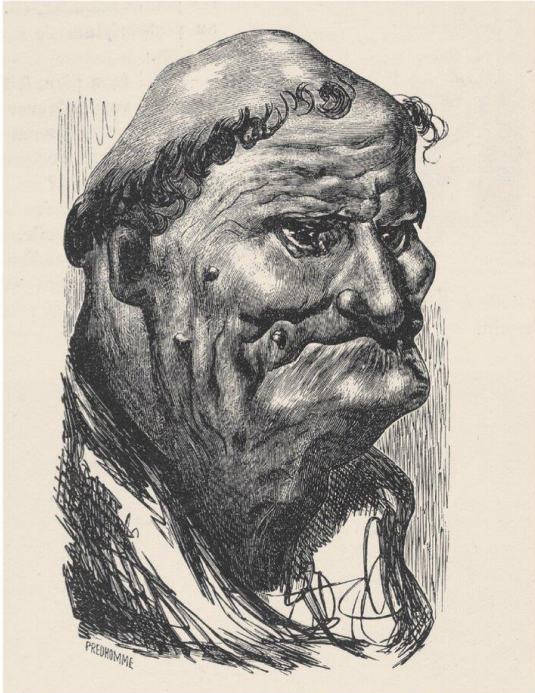
Juxtaposition is the contrast of two opposing images or themes set side by side, as a source of visual imagery it shares traits of the uncanny in the subversion of what is expected, or something appearing in a place which one would not expect. See figure 1 for an example of juxtaposition, an illustration by Gustave Dore, a French artist of the 19th Century. In this image, we see a cherub often associated with love and life sat upon a pile of tumbling skulls, these two images contrast the other.



*Figure 1 - Love Reflects on Death, Gustave Dore*

The first three bosses in *Little Nightmares* are presented as grotesque, gluttonous monstrosities which bring to mind a darkened and twisted version of Mikhail Bakhtin's literary theory, carnivalesque. Writing in the 20th Century, Bakhtin's theory of the carnivalesque centred around writing presenting juxtaposed power structures often present in carnivals. This theoretical approach is concerned with parody, the humerus and chaotic. The carnivalesque can be applied to media texts which present a paradoxical uncanny in a surreal, juxtaposed fashion such as *Little Nightmares* and *We Happy Few*. Grotesque bodies are one of the ways in which the carnivalesque has come to the forefront of surreal uncanniness embedded within digital character design. Gustave Dore's work illuminates the disturbing, revolting ways in which the body can be manipulated and presented in a carnivalesque manner. His work is a prime example of this style of characterization which we see in the bosses of *Little Nightmares*, [figures 2 and 3].





*Figure 2 - Gustave Doré Illustrations for Balzac Droll Stories*



*Figure 3 - The Enchantment of Don Quixote, Gustave Doré*

In *We Happy Few* we witness this surreal, carnivalesque uncanny via the vivid imagery and saturated colour palette, unadulterated and violent characters, and use of narcotics to force a preferable perception of life. Human behaviour has been considered by Freud in his essay concerning the uncanny. He writes that “we can also call a living person uncanny, that is to say,

when we credit him with evil intent. But this alone is not enough: it must be added that this intent to harm us is realised with the help of special powers”<sup>57</sup>. Freud continues along this thread of the uncanny human by recognising that “the uncanny effect of epilepsy or madness has the same origin. Here the layman sees a manifestation of forces that he did not suspect in a fellow human being, but whose stirrings he can dimly perceive in remote corners of his own personality”<sup>58</sup>. Both *We Happy Few* and *Little Nightmares* presents this combined aesthetical image of uncanny carnivalesque and Bakhtin’s “apotheosis of the body as grotesque”<sup>59</sup>, and Freud’s uncanny human. This is presented in two separate methods, the carnivalesque highlighted in the visual design of the characters, and Freud’s uncanny human embedded within the character’s programming. *We Happy Few* manipulates the facial features of the characters in a forced and grotesque way using a mask. This physical design is where the carnivalesque resides.

On the other hand, considering Freud’s uncanny humanity, we should look towards the indication of intent to harm and madness within the character’s digital psyche. This detestable use of visual design to mould the faces into a grimacing expression is emphasised via the expressive eyes. *We Happy Few* works around an authoritarian structure, the citizens must adhere to the rules and are kept in place by the violent truncheons of the Bobbies should they stray. They are digital representations of the Georgian ‘Bobbies’, eponymous of Sir Robert Peel<sup>60</sup> (1788-1850), set in the game world of a fictional 1964. In figure 4 taken of a Bobby, the expression is one of dark intent shown through the eyes turning upwards, the smiling mouth indicating the genuine nature of the grimace. The Bobbies are inherently violent, although they are programmed to leave the player alone if certain game parameters are met, i.e., the player is dosed with Joy and does not venture outside at nighttime. However, if provoked, they will attempt to beat the player to death with a truncheon in an enthusiastically macabre manner.



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<sup>57</sup>Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 149

<sup>58</sup>Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 150

<sup>59</sup> Lachmann, Renate, et al. ‘Bakhtin and Carnival: Culture as Counter-Culture.’ In *Cultural Critique*, 11:1988, pp. 115–52, page 118

<sup>60</sup> Hurd, Douglas, *Robert Peel: A Biography*, (United Kingdom: Orion Publishing Group, 2017).

Figure 4 - *We Happy Few* 'A Bobby'

The everyday characters the player encounters also wear this smile wrenching mask, however the digital psyche is presented in a more fragile, entrapped manner. Figure 5 shows the fear, shock and horror expressed in the eyes of the woman; an expression found all throughout the game.



Figure 5 - *We Happy Few* 'Concept Character'

*We Happy Few* is a psychedelic, sugar coated sensory trip which teases the expectations of horror. Kirkland discusses how survival horror video games use tools such as avatars and architecture to incite notions of the uncanny. Kirkland states in his conclusion how “horror video games, in particular, have many uncanny resonances which can be used to explore their psychological and emotional impact”<sup>61</sup>. *We Happy Few* expresses the uncanny in a psychological and emotional way by playing with the conceptions of fear in an intriguing manner, unlike stereotypical horror video games where tools such as jump scares and subdued lighting are adopted. Referring to Freud, the uncanny is among other things, an aesthetic tool to prompt certain emotional response and “relating to the qualities of our feeling”<sup>62</sup>, *We Happy Few* shows us how uncanny and fear by proxy does not inherently have to be presented with physical shock horror values. The uncanny is not a singularly scary experience but can in fact incite a range of emotions such as intrigue, discomfort, and scepticism. Jentsch theorises how “it is an old experience that the traditional, the usual and the hereditary is dear and familiar to most people, and that they incorporate the new and the unusual with mistrust, unease and even hostility”<sup>63</sup>. Fear is not an intrinsically horror response, it is a survival instinct centred around the fear of the unknown or perceived danger. Fear of the Other,

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<sup>61</sup> Kirkland, Ewan, ‘Horror Videogames and the Uncanny’ in *DiGRA '09 - Proceedings of the 2009 DiGRA International Conference: Breaking New Ground: Innovation in Games, Play, Practice and Theory*, 5:2009, page 3

<sup>62</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 123

<sup>63</sup> Jentsch, Ernst, ‘On the Psychology of the Uncanny’, in *Angelaki: Journal of the Theoretical Humanities*, 2:1, pp 7-16, page 8

which Carrol L. Fry describes as “the Other - who does not look like us, use our language, has a different religion or ideology or appears threatening in some way”<sup>64</sup>, links into this fear of the unknown and perceived danger. Fry also states how “the paranoia and fear of the Other runs through all of the primal narratives in film, entwined with them”<sup>65</sup>. This fear of the Other presents in an intriguing way within *We Happy Few* in that the Other is different only in the choice or inability to take Joy. These ‘downers’ as they are referred to represent that which society is desperately trying to escape and erase, the fear is not necessarily in the Other themselves but in the truth, they threaten to expose. This draws back to the uncanny being achieved through multiple layers of misleading information presented as ‘truth.’ It relays back to the uncanniness of a broken down, ineffective society and the primal fear of this decay in tribal structure intrinsic in communal, social existence.

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<sup>64</sup> Fry, Carrol L., *Primal Roots of Horror Cinema: Evolutionary Psychology and Narratives of Fear*, (North Carolina: McFarland & Company, 2019), page 152

<sup>65</sup> Fry, Carrol L., *Primal Roots of Horror Cinema: Evolutionary Psychology and Narratives of Fear*, (North Carolina: McFarland & Company, 2019), page 152

#### 4 - Psychological properties of colour and lighting

Lighting and colour can help create emotional or psychological affect and are vital elements when considering video games with uncanny design. There are semantics associated with colour within humanities and arts-based theories similarly to language in literary theory. The connotations associated with colour have been adopted in many areas for different purposes. In video games, colour theory is adopted to create the desired emotional experience that a player is expecting based upon the genre they choose to engage with. Audiences have come to expect colour schemes which reflect the tone of the text. Horror is a particularly interesting genre, due to the diverse range that colour is used depending on tone and context. The psychology behind our perception of colour, and the connotations thereof, helps to underpin the reactionary response which comes to play in our relationship with media. Stereotypically horror media will adopt a colour palette that impacts the perceiver in a negative way, whether this be from a place of fear, repulsion, or moral rejection. Horror films often use a negative colour palette, making use of tones and shades such as greys, blacks, and sepias. However, sometimes a more vibrant and saturated approach is used, this is seen in films such as *Suspiria* (1977) [Figure 6].



Figure 6 - '*Suspiria*' still

In the 20th century blue light became a popular choice to emphasise darkness in horror films. Although we now see this same lighting used effectively in television series such as *Ozark* (2017) [Figure 7], which may not be a horror series, but does present itself from the darker strain of drama.



Figure 7 - 'Ozark' still

Considering the usual colour palette and aesthetic design choices which have come to be associated with survival horror games, it is interesting how *We Happy Few* explores the use of technicolour and vivid colour saturation. The gritty negative tones, mist, smoke or fog evident in scenes of *Plague Tale: Innocence*, are put on hold in *We Happy Few* in favour of less realistic but arguably, more uncanny design effects. Referring to how the uncanny can be present in feelings of uncertainty in situations which have blurred from familiar to unfamiliar in an uncomfortable and sometimes intangible way. It is interesting how a video game such as *We Happy Few* uses elements of horror gameplay but does not present itself aesthetically in the way we would expect from horror, reinforcing the break from expectation associated with the uncanny. There are situations in which subdued lighting, atmospheric fog and colder tones in the colour spectrum are used, but they are few and far in comparison to the base design of intense colour saturation. This brings forth the question whether the use of subtle colours alongside factors such as gameplay, narrative and audio create stirrings of fear associated with the uncanny, or whether an overt approach is more effective as it shifts the natural into the unnatural.

*Plague Tale: Innocence* uses colour in a juxtaposed and emotive fashion depending on the situation the siblings and their companions find themselves. Amicia and Hugo, accompanied by a rogue girl and at the direction of a young alchemy apprentice, travel to find a castle where they seek refuge, shelter, and a place where a cure can be accomplished for Hugo. In contrast to the usual grey, black and sepia tones that have been applied to the other levels of the game, the castle once infiltrated takes on an opposite feel. Pathetic fallacy is an intriguing literary tool in which inhuman objects and elements within nature are assigned human emotion descriptors, "it is an attempt to create harmony

of Nature with the characters”<sup>66</sup>. For example, the creaks and moans of the wretched, lonesome cabin escape like whispered secrets seeping from between the parted lips of the unwilling. Here the cabin, an inanimate structure, is personified and assigned human emotional descriptors. *Plague Tale: Innocence* creates a distinct bond between the experiences of the siblings and the natural world around them, often showing the emotional state of the children reflected in the weather. On arrival, the castle is an unwelcoming fortress shrouded in fog and drenched with heavy rain, this use of pathetic fallacy reinforces the sense of hopelessness and trial that the pair face throughout the game. Alongside the uncomfortable, slightly off key and frantic violin strokes to emphasise the flashes of lightning and dark, heavy, and low sombre tones which drone in the background, this scene speaks heavily to the gothic. However, it is not in itself ‘uncanny.’ When considering the uncanny we look for something that is not behaving or used in the way we would expect. Consumers of horror fiction and media, especially those versed in the gothic will recognise that the castle is a huge staple of the genre and is very rarely a friendly, inviting place. Evidence of the uncanny is found after the initial moment once the children have gained access to the castle and have found in its walls a home once more. It is through the stark change in aesthetic that the uncanny creeps through, the warm lighting illustrates and illuminates the castle in a welcoming, home-like manner. The soft lines, warm palette of pastel shades in pink and orange with vibrant green, and dawn lighting used adds an eerie effect due to the sudden change in dynamic. There is also the subconscious knowledge that the game is a horror game with gruesome circumstances which the young children must overcome, the homely castle seems out of place and as if from a children’s fairy tale.

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<sup>66</sup> Ringham, Felizitas, and Martin, Bronwen, *Key Terms in Semiotics*, (United Kingdom: Bloomsbury Academic, 2006), page 85

## 5 - Uncanny Visual Stimuli in video games

Freud mentions the use of eyes and the relevance to the uncanny in his essay in a couple of different contexts, firstly in the fear of losing use of one's eyes<sup>67</sup> and secondly in the superstitious associations of 'the evil eye'<sup>68</sup>. The fear of blindness, vulnerability in a lack of sight and the pain associated with the loss of sight in a violent way is something often explored in horror literature and media. In the survival horror video game *Dead Space 2* (2011), the memorable and horrifically interactive, 'stick a needle in your eye' moment places the player in control of a machine to extract information inside the protagonist, Isaac Clarke's mind. This machine is like an MRI, Isaac crawls inside and lies down, the player takes control of a needle and is tasked with directing it into Isaac's pupil. The failure of which triggers a gruesome and detailed death. In cult classic *Clockwork Orange* (1971) reprobate Alex DeLarge undergoes brutal Aversion Therapy via metal clamps prying open his eyelids following his incarceration at the climax of an immoral and grim spree. The famed torture-porn horror franchise *Hostel* (2005) centred around the concept of a bachelors' backpacking trip gone horrifically awry. The film features repulsive ocular torture when a blow torch is taken to Kana's iris, leading to an essential ocular mutilation when main protagonist Paxton is forced to remove the eye entirely.

Reference to eyes in *We Happy Few* is approached in a separate way. When entering the Garden District, the first environment the player can explore, one of the first noticeable repetitions of eyes becomes apparent by the etchings across the ground. As the player explores the world of *We Happy Few* more of these chalked drawings of eyes can be found throughout the wild areas where those who roam are unmedicated for one reason or another. In fact, there are numerous connections between eyes and 'downers,' i.e., the unmedicated. Rather than being symbolic of sight loss, the use of eyes in *We Happy Few* points towards the opening of one's eyes and rather than knowledge lost it is knowledge found. Those who are not consuming Joy remember the truth of what happened to the children and how they 'won' the war whereas those taking Joy remain blissfully unable, which is its true purpose. Another repetitive image is drawings of people with scratched out faces. This could either refer to the adults who gave up the children to Germany who no longer wish to look at themselves due to the horror of what they did, or it could in fact depict the children grown up with the etched-out faces illustrating a lack of knowledge as to what their own children's faces look like now. Imagery and writing are an important part of the *We Happy Few* lore, this connotes the importance of knowledge and passed down information in civilisation and how the decay in society can often be represented in a loss of known skills, history, and literature.

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<sup>67</sup>Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 139

<sup>68</sup>Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 146



In *Plague Tale: Innocence* we see evidence of the uncanny in scenes such as on the battlefield the siblings must traverse shortly after fleeing their home. As they trudge over bodies of the dead, crumbling, burning structures protrude in the background and crows pick voraciously at the corpses. Yet this is not particularly uncanny. The uncanny effect is created through putting the innocent children into the dark, harrowing scene. It is in the manipulation of childhood innocence that is woven throughout where we see this uncanny effect. The use of a slingshot, a child's toy, as the deadly weapon which brings about the often disturbing end to many and the childlike language used at times plays with the boundaries of normality. Finally, and the most striking, is an image which the player happens upon during the chapter, 'In the Shadow of Ramparts.' Amicia enters a home that has been evacuated by the Inquisition alongside the rest of the city, on the upper level of this home is a family bed. The mould speckled sheets are pulled high, covering the bodies of what is clearly an adult and a child with a small doll just out of reach. When we consider images associated with 'home', 'family' and 'family bed', this is not what would immediately spring to mind. Although the image of death is not in itself uncanny as it is again, what is expected from horror, it is in the arrangement of the picture as a whole and most importantly in the addition of the child's toy.

There are no Lovecraftian horrific beasts, supernatural terrors, or the visual bleakness iconic for survival horror in *We Happy Few*. The game leans more towards a hypothetical example of a tainted society acting its worst. Two instances within the game come to mind initially when considering the elements of horror, the first being shortly after the opening of the game and the second being part way through. The first is initiated as Arthur enters a room in his place of employment, fellow employees and Joy poppers are gathered for a party, in the centre of the room is a table and atop this table is a colourful pinata. Arthur is instructed to hit the pinata by his childlike, excitable fellows. He smashes the 'pinata' and watches as the others greedily descend on this treat filled feast but as sobriety begins to set in Arthur is revealed the truth in a moment of dark clarity - the pinata is in fact a rat and it is not sweets upon which they are feasting. Victoria Byng, a major antagonist, initially introduced as Arthur's superior, announces in shock how Arthur really is off his Joy, after sucking the gore from her fingers emphasising this repulsive act.

Throughout the game the player is offered shelter within bunkers which are located throughout Wellington Wells, this is also the way in which fast travel is presented in *We Happy Few*. The second notable moment happens when the player discovers one of these bunkers. As the player enters this bunker, they are presented with an iconic horror scene: a corpse propped against the wall, stairs descending into darkness with bloody drag marks leading to a closed door and the words 'they fear the light' written in red on the wall. Of course, there is also plenty other simple horror imagery to be found throughout the game with violent bloodshed, hideous torture, harrowing character biographies, plague infested areas and hanging bodies up to the rafters.

In the previous section discussing the uncanniness of *Plague Tale: Innocence* it was established how this uncanny stylistic approach was an underlying attribute in the narrative choice with examples of children protagonists and imagery relating to childhood twisted in a macabre way. Although there are some similarities in the use of uncanny as a tool for fear provocation in *We Happy Few*, such as in the use of multiple references to Lewis Carroll's iconic child's book *Alice in Wonderland*, the predominant evidence of uncanny lies in the audiovisual design. There is a phenomenon explored in *We Happy Few*, a shift in dynamic in which a scene or environment will purposefully shift from a dreamlike setting into a cold reality, this recalls Freud's uncanny dream-like states. An example of this is in the beginning of the game shortly after the player has taken control of the avatar Arthur. Upon entering a co-worker's office, Prudence, the room appears normal enough with warm lighting and a sign which hangs from the ceiling stating 'Welcome Back'. However shortly after entering a change is triggered and the sign falls to reveal the words 'Come Back.' The room becomes enveloped in a negative change, the lighting turns blue and grey, and flies swarm the contents of a rotten fruit basket. Another instance is the pinata scene, as Arthur approaches the scene is jovial and light; pink lighting illuminates the co-workers twittering excitedly and twitch like playful children, the colourful and bright pinata rests on a table before them. The Joy fades and reality takes the place of the drug fuelled euphoric alternate leaving behind the cold reality, ravenous co-workers and a bloody, beaten dead rat.

Once again in the Garden District, on the walls of the abandoned homes the player gains further insight into the history that led to the society they find themselves within. Without prior knowledge that the citizens gave up their children to the Germans in a desperate attempt to end the war, the player discovers lists of children's names and phrases such as 'I remember what we did', scrawled across walls. This revelation of information which consumers of Joy have fought tooth and nail to cover up but now lays bare and naked across the walls for all to see brings us back to the idea that "the uncanny [is] 'something that should have remained hidden and has come into the open'"<sup>69</sup>. The same could be said of the masks in *We Happy Few* to hide true emotion, there are numerous occasions where a character can be seen with an uncanny, over exaggerated smile stretched painfully across their face whilst fear, pain or distress is noted in their eyes. Characters who are labelled as a 'downer' and are therefore ostracised from the supposedly civil areas, do not wear these masks. Their emotions and distress are etched across their faces once again pointing towards this disocclusion inherent in the uncanny.

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<sup>69</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 148

## 6 - Uncanny Sound

As discussed by Guillaume Roux-Girard, “images and sounds are tightly linked”<sup>70</sup>. It is the symbiotic relationship between aesthetic and sound which can make an effective atmospheric piece, atmosphere being a vital element when building an immersive experience. Audiovisual effects and sound cues are discussed in the field of ludo musicology [i.e., academic study of video game music]. Bernard Perron writes that “playing scary games is indeed as much - if not much more - an auditory as a visual experience.”<sup>71</sup> Liapis, Lopes and Yannakakis propose that horror soundscapes use audiovisual metaphors “to emphasise certain emotions of characters or scenes towards the audience”<sup>72</sup>. Roux-Girard described the impact of the audiovisual relationship in a pictorial and illuminating manner when describing iconic survival horror *Dead Space*'s (2011) combat style: “the gooey sound that accompanies the plasma cutter blast as blood and guts explode on the screen helps the gamer believe that what they are seeing is real”<sup>73</sup>.

Diegetic sound refers to sounds that are experienced within the film, or in this case, game world. Character dialogue, music that is being actively listened to by the character, or the sounds made by a threat heard and responded to by the character are diegetic. Non-diegetic sound refers to sounds heard by the player, but not acknowledged by the characters, a film or game score is non-diegetic sound. Non-diegetic sound can also create recognisable sound cues for the player, “when it is heard, a gamer identifies it as a forewarning scare tactic to make them aware”<sup>74</sup>.

There are multiple examples throughout *We Happy Few* where the audiovisual relationship aids in creating an uncomfortable and atmospheric experience. One example to consider is in the attic of the previously mentioned abandoned house. As the player enters the room, they discover two bodies hanging from the rafters, the sounds of creaking boards and groaning rope emphasises the gruesome and disturbed sight already prompted by foreboding with the presence of writings such as, ‘I remember what we did.’ Throughout the game are instances of ominous, pulsing deep tones which are unnervingly subtle to the extent that the player could easily mistake it for being in the real world opposed to the virtual one they are exploring. This is an interesting way that immersion is explored,

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<sup>70</sup> Roux-Girard, Guillaume, ‘Listening to Fear: A Study of Sound in Horror Computer Games’ in *Game Sound Technology and Player Interaction: Concepts and Developments*, ed by Mark Grimshaw, (USA: IGI Global, 2011), pp 192-212, (page 199)

<sup>71</sup> Perron, Bernard, *The World of Scary Video Games: A Study in Videoludic Horror*, (New York: Bloomsbury Academic, 2018), page 285

<sup>72</sup> Liapis, Antonios, Lopes, Phil, Yannakakis, Georgios N., ‘Modelling Affect for Horror Soundscapes’ in *IEEE Transactions on Affective Computing*, 10,2:2019, pp 209-221, (page 210)

<sup>73</sup> Roux-Girard, Guillaume, ‘Listening to Fear: A Study of Sound in Horror Computer Games’ in *Game Sound Technology and Player Interaction: Concepts and Developments*, ed by Mark Grimshaw, (USA: IGI Global, 2011), pp 192-212, (page 200)

<sup>74</sup> Perron, Bernard, *The World of Scary Video Games: A Study in Videoludic Horror*, (New York: Bloomsbury Academic, 2018), Page 308

a blending of reality and virtuality for the player where the boundary begins to fade, and distinction is no longer clear. However, notably once these sounds are identified they become more easily determined. Other notable samples of sound to consider in the realm of uncanny sound are the inclusions of discordant music boxes, pre-war music on a gramophone warped and distorted to a physically uncomfortable extent and the occasional spontaneous foghorn. The cult-like behaviour associated with Uncle Jack is worth noting, the blaring of 'Simon Says' on a speaker across empty fields and the talk show hosted by Jack still broadcasted throughout the different areas of the world comes to mind.

The opening soundtrack for *Layers of Fear* has a haunting melody, made up of sombre, yet hopeful piano notes in a major key beginning slowly before building in tempo to something playful. Accompanying this bittersweet melody is the lullaby-esque and soothing non-verbal vocalisations which drift with the tune. This is an interesting way in which the uncanny manifests through sound in video games, the reason being for the subversion of expectation. Major key is not a commonly used design choice in horror game soundtracks, usually tense and fear inducing minor pieces are constructed to entice feelings associated with horror. It is interesting then, that this is the opening song to the game, with the in-game songs being very much of a dark and creepy nature. Discordant music boxes, uncomfortable shrill tones and eerie sound effects all feature in the preceding songs in the game.

*Plague Tale: Innocence* approaches the assignment of designing sound for horror in a different way with a much more orchestral score. The long, slow, and melodic violin strokes add a sombre undertone throughout the game which resonates and allows emotion to seep through. The soundtrack is not singularly major or minor, experimenting with sound to appropriate conjunction with the contextual tone of the game. The song titled 'Father' is the backdrop to the opening scene in which Amicia experiences a poignant and playful moment with her father shortly before his death. It is a heart-warming moment in which we learn about the complicated, but loving dynamic of the family. The playful plucking of the stringed instrument alongside the pleasing mediaeval strokes of the violin creates a warm, and welcoming backdrop to the scene. Whereas in the song 'In Shock,' we experience the pain and torment the siblings are being worn down by as they begin their haunting and tortured journey following the death of their father and believed death of their mother. We feel their exhaustion in the long, slow drags on the violin which emanate the laboured efforts of the siblings to continue through even with the weight of all they have come to bear within moments of the game beginning. The music operates with an element of pathetic fallacy, in which the human emotions and bond experienced by the characters is felt within the music.

*We Happy Few* uses a less subtle approach presenting the player with an upbeat soundtrack typical of the 1960's popular culture music. In the same way we see in the other elements of the game such

as colour saturation, upbeat characters with strained grimacing smiles etched on their face, and by the concept of 'Joy' itself, the soundtrack continues this theme of overindulgent happiness.

Michel Chion, a French film sound theorist from the 20th Century, discussed acousmatic sound as meaning sounds heard in film which come from an unknown origin<sup>75</sup>. Bernard Perron writes about this interpretation of acousmatic sound in relation to horror video games, and how "to listen is to collect information beyond what is seen"<sup>76</sup>. This refers us back to the original view made in this research, how the uncanny is not necessarily about the frightening stimuli but is a fearful response triggered by the distrust in our senses. Listening to the world around us is one of the original and instinctual ways in which we can differentiate between threat and vice versa.

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<sup>75</sup> Kane, Brian, 'Sound Unseen: Acousmatic Sound in Theory and Practice', (New York: Oxford University Press, 2014)

<sup>76</sup> Perron, Bernard, *The World of Scary Video Games: A Study in Videoludic Horror*, (New York: Bloomsbury Academic, 2018), Page 306

## 7 - The Uncanny Space

The digital space is one of the main components which separates video games from cinema due to the interactive capabilities a video game presents the player. As Nitsche discusses, a digital space “is a world defined by a universe of coordinates...In order for these data visualisations to become meaningful, they have to be engaged by the player. Through the active work of the player, through comprehension and interaction, the masses of polygons can transform into places”<sup>77</sup>. The player is required to engage with the digital space for it to traverse from ‘space’ to ‘place,’ whereas this relationship is not as necessary between spectator and film. In a comparable way, the uncanny relies on the perceiver to recognise it. This is due to the personal circumstances entwined in the perception and therefore existence of what is deemed uncanny. Jentsch states how he shall not try to determine exactly what the uncanny is, or where it springs forth from as “such a conceptual explanation would have very little value. The main reason for this is that the same impression does not necessarily exert an uncanny effect on everybody. Moreover, the same perception on the part of the same individual does not necessarily develop into the “uncanny” every time”<sup>78</sup>. Freud confesses that in relation to experiencing uncanny sensation, he himself holds “exceptional obtuseness in this regard, when great delicacy of feeling would be more appropriate”<sup>79</sup>. From what I have uncovered through the survey feedback gathered following the video game trials led for this research, I am inclined to agree that a level of personal connection, understanding, and vulnerability is crucial in bringing forth the uncanny.

Homi Bhabha writes about the concept of the unhomely. He iterates the idea that unhomely is not the physical, literal act of being homeless as the term *unhomely* might indicate. The unhomely feeling is much the same as the uncanny sensation, the subversion of the familiar into unfamiliar, by crossing into the home we add an intimacy which is achieved in the domestic space. Referring to Isabel Archer, the fictional character from Henry James’s *Portrait of a Lady* (1881), Bhabha examines the unhomely sensation. He states that “the unhomely moment creeps up on you stealthily as your own shadow and suddenly you find yourself...’taking the measure of your dwelling’ in state of ‘incredulous terror’”<sup>80</sup>. Bhabha’s interpretation of unhomely presents the sensation of uncanny permeating the sheltering walls of domesticity and infecting the space in which we seek refuge. Anthony Vidler introduces the uncanny as “aesthetically an outgrowth of the Burkean sublime, a

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<sup>77</sup>Nitsche, Michael, *Video Game Spaces: Image, Play, and Structure in 3D Game Worlds*, (USA: Massachusetts Institute of Technology, 2008), page 191

<sup>78</sup>Jentsch, Ernst, ‘On the Psychology of the Uncanny’, in *Angelaki: Journal of the Theoretical Humanities*, 2:1, pp 7-16, (Page 8)

<sup>79</sup>Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), (Page 124)

<sup>80</sup>Bhabha, Homi. ‘The World and the Home’, *Social Text*, no. 31/32, (Duke University Press: 1992), pp. 141–53, (Page 141)

domesticated version of absolute terror, to be experienced in the comfort of the home”<sup>81</sup>. In reference to the uncanny, Vidler said that its “favourite motif was precisely the contrast between a secure and homely interior and the fearful invasion of an alien presence”<sup>82</sup>.

In *Plague Tale: Innocence* we see the literal evacuation of home, but there is also evidence of this dissociation and non-recognition that Bhabha discusses. In a broad sense, there is the change and manipulation of the home country, where the towns have become infested with rats, nests and the black biological matter spreading at an alarming rate. There is also the invasion of the inquisition. However, considering Bhabha’s argument regarding the meaning of ‘unhomely,’ we should take a closer look at a couple of specific points within *Plague Tale: Innocence*.

There is a stark and alarming difference between the land in the initial chapters, ‘The De Rune Legacy’ and ‘The Strangers’ where the overall aesthetic is closer to the palette and lighting of the castle as ‘Home,’ and the subsequent chapters once the presence of the rats and threat is stronger with dark lighting and colours setting the tone. The imagery previously discussed which accompanies the invasion of rats and man also physically and symbolically changes the appearance of the countryside and towns into something sinister and far from homely. As the nests and black matter spread, the areas feel less like a rural settlement and more like a disturbed, mortal hell with imagery more akin to games such as *Alice: Madness Returns* (2011) and *Doom* (1993).

Towards the end of the game there are two specific moments that warrant discussion regarding Bhabha’s ‘unhomely’ definition, the reconciliations of the character Roderic and his home, and Amicia and her family home. Bhabha states that among other things, “the unhomely is the shock of recognition of the world-in-the-home, the home-in-the-world”<sup>83</sup>. He uses the example of a song by Toni Morrison, *Whose House is This?* The point is that, in an uncanny and unsettling way, a home is transformed into something sinister and darker than what we have come to associate as ‘home.’ The first reconciliation is Amicia’s in chapter ‘All That Remains.’ Amicia and Lucas, the apprentice alchemist working on Hugo’s cure, return to the De Rune family home. The grounds are overrun with rats, and the area is barely recognisable in comparison to the opening chapter which showed the grand castle, warm and inviting with gardens of lush foliage. Amicia’s reconciliation with home is a blunt contrast, she is clearly distraught by what has become of her home and the scene is an emotional reminder of where the children have come from, where they are now and where their journey is heading.

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<sup>81</sup> Vidler, Anthony, *The Architectural Uncanny*, (Massachusetts: The MIT Press, 1992), page 3

<sup>82</sup> Vidler, Anthony, *The Architectural Uncanny*, (Massachusetts: The MIT Press, 1992), page 3

<sup>83</sup> Bhabha, Homi. “The World and the Home.” *Social Text*, no. 31/32, Duke University Press, 1992, pp. 141–53, page 141

In the penultimate chapter, 'Coronation,' Roderic has a similar experience. He discovers his home and the street he grew up burnt to the ground, the only recognisable detail remaining is the scorched blacksmith's sign. Bhabha states that, "the unhomely moment creeps up on you stealthily as your own shadow"<sup>84</sup>, which speaks true to the slow building distance from home the children have figuratively tread. The reality of the death of their home and transition into the realm of the 'unhomely' is always there throughout the game as a gnawing but silent presence, in these bleak moments that it becomes fully exposed.

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<sup>84</sup> Bhabha, Homi. 'The World and the Home', *Social Text*, no. 31/32, (Duke University Press: 1992), pp. 141–53, (page 141)



## 8 - Interaction and Immersion

When we consider video games as a media text, the most obvious difference is the interactive element. It transforms the consumer from the spectators' experience of television and film into the active role of the player. Dawn Stobbart summarised the difference between interaction and immersion writing how, "in a general sense, interactivity usually describes an active relationship between two (or more) things"<sup>85</sup>. Stobbart continues to say how in the case of video games "the player's actions are directly responsible for the progression in a game and its accompanying narrative"<sup>86</sup>. Conscious choice plays a massive role in interactivity, video games present players with a multitude of choices and decisions, some genres seek player input more than others, but the premise remains the same. With television and film, there is the option to watch as the events unfold before you without needing to give any input, however video games require the player's interaction for the story to continue. Bernard Perron writes how, "the state of being a spectator is obviously altered in an ergodic medium like the video game. A gamer is looking, but at what they are performing and what is being done in return to their actions. They are a *spect-actor*"<sup>87</sup>. In the case of horror games, this engaged interactivity is interesting due to the player's resolve to push through shocking and frightening stimuli to reach whatever conclusion the game presents. The uncanny experience requires emotional *interaction* from the perceiver, one must interact with the trigger to experience the uncanny.

Immersion is key when prompting emotional response; the player must be immersed otherwise they would be aware of the artificiality of the fear, horror, or excitement. Stobbart defines immersion as "a deep absorption or involvement in an activity"<sup>88</sup>. Frances Dyson wrote how immersion is "a process or condition whereby the viewer becomes totally enveloped within and transformed by the 'virtual environment'"<sup>89</sup>. The virtual environment within horror video games is a good realm in which to present the uncanny considering "the space in scary games is reduced and designed with the clear goal of frightening the gamer"<sup>90</sup>. Freud states how "the uncanny would always be an area in which a person was unsure of his way around: the better orientated he was in the world around him,

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<sup>85</sup>Stobbart, Dawn, *Videogames and horror: From Amnesia to Zombies, Run!*, (Cardiff: University of Wales Press, 2019), Page 5

<sup>86</sup>Stobbart, Dawn, *Videogames and horror: From Amnesia to Zombies, Run!*, (Cardiff: University of Wales Press, 2019), Page 5

<sup>87</sup>Perron, Bernard, *The World of Scary Video Games: A Study in Video-ludic Horror*, (USA: Bloomsbury Academic, 2018), page 250

<sup>88</sup>Stobbart, Dawn, *Videogames and Horror: From Amnesia to Zombies, Run!*, (Cardiff: University of Wales Press, 2019), page 5.

<sup>89</sup>Eidsheim, N., & Wong, M, Frances Dyson, 'Sounding New Media: Immersion and Embodiment in the Arts and Culture' in *Organised Sound*, (Berkeley: University of California Press, 2009), 16(3), pp. 284-286, page 2

<sup>90</sup>Perron, Bernard, *The World of Scary Video Games: A Study in Video-ludic Horror*, (USA: Bloomsbury Academic, 2018), page 319

the less likely he would be to find the objects and occurrences in it uncanny”<sup>91</sup>. Dyson’s definition has resurfaced in numerous texts regarding immersion in media, including in Stobbart’s text mentioned above. Immersion is particularly vital in horror media, a genre which relies on the ability to invoke biological and primal responses such as fear or repulsion. To establish these emotions and the physical reactions that accompany them, (sweating, heart palpitations, adrenal release), the video game needs to immerse the player into the virtual environment successfully. As Perron states, “it is not new or recent that survival horror and scary games have instilled such a sense of presence in the game-world, both a personal one...and an environmental one”<sup>92</sup>.

Combat is a useful tool when considering the immersive quality of a game and the interaction format the designers have opted for. Unfortunately, due to time constraints and practical game development knowledge gaps, I was unable to explore the potential for combat on a practical design level. However, the importance of combat to help stimulate immersion in the differing levels of interactivity makes it a vital design choice to discuss in this research regardless. Especially when we take into consideration the importance immersion has on perception of the uncanny.

The combat system in *Plague Tale: Innocence* often places the player into a weakened and vulnerable position when facing an enemy. This design element of gameplay not only reiterates the inexperience and weaknesses of Amicia, but also allows the player to simultaneously interact and immerse. Amicia faces many challenges; this is down to the fact that herself and her brother are being pursued by weaponised soldiers in a hostile environment filled with paranoid and aggressive adults. There are three notable boss fights within the game which the children must face. The first is a significant event as it marks the change in Amicia from victim to fighter, it is the second death she is responsible for. Disheartened and afraid by what she has done, in defence of her brother, she continues in pursuit of her frightened and angered fleeing brother. Once she finds him, he has already been captured by a man dressed in full body armour, wielding a heavy, intimidating mace. Amicia must remove every piece of armour before the helmet falls and the man’s head is exposed, finishing with a deadly blow to the head marking the full transition of her slingshot from hunting tool to weapon. The player must remove the shoulder pauldrons and helmet before striking the head, one hit is all it takes to bring Amicia down. This quick thinking, high stakes combat is often seen in action-adventure survival games where the odds are stacked against the protagonist.

Not all games use active combat, and often games of the survival horror genre opt for a more vulnerable means of immersion from the player. In these games there is a heavy emphasis on the ability to sneak and evade an enemy. Walking simulators use this style of non-combative gameplay.

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<sup>91</sup>Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 125

<sup>92</sup>Perron, Bernard, *The World of Scary Video Games: A Study in Video-ludic Horror*, (USA: Bloomsbury Academic, 2018), page 319

Although not a walking simulator, *Little Nightmares* adopts this non-combative gameplay. The game presents the player with four bosses they encounter as they travel through the multiple sections of the Maw: the Janitor, the Chefs, the Guests and the Lady. The player is introduced to each boss in a sneak preview before Six encounters them. As there is no active combat, or weapons, provided the aim is to outsmart, outrun and hide from these grotesque and disturbing creatures. Concentration and engaged play are crucial and survival is pivotal on the ability to immerse and interact with the digital environment.

Non-combative gameplay is used in *Layers of Fear*. This is a video game which falls within the walking simulator category of video game genre, although it is not as story rich as consumers of this genre would expect. However, it is an interactive environment, in which the player must traverse the digital environment to unlock the secrets the game world possesses with only a superficial threat. Although the game is riddled with jump scares and frightening moments, the protagonist is not actually ever in any danger. The only true threat within this video game is the ghost of the protagonist's wife. It is not established whether this is a metaphorical ghost or literal, but in the context of the mental instability of the painter and the transition of the mansion from real to surreal as the game progresses it seems safe to assume she is a figment of the tortured mind. There are two options when discovering the ghost throughout the mansion, flee or embrace, neither option gives you combative means or even the ability to hide as in *Little Nightmares*. There are three potential endings for *Layers of Fear*, as mentioned previously, and how you interact with the threat of the wife influences these endings. One ending shows the painter's magnum opus being complete to show the image of his daughter with his beautiful, deceased wife before she was horribly disfigured in a fire caused by his drunken idiocy. To access this ending, the player must go towards, and embrace the horrifying specter with every encounter and actively seek her out throughout the game. The alternative is to avoid the spectral wife at every chance, this will trigger the magnum opus to be a self-portrait.

*We Happy Few* is the most combative of these four examples of video games, it is an action-adventure which has an active approach to combat. The player is placed into a hostile, and paranoid digital environment which relies on violence for survival. It is crucial that the player remains alert and suspicious, as well as managing their use of the drug, Joy, to ensure the surrounding non-playable characters [NPC] do not become enraged and blood thirsty. Throughout the game there are scenarios in which combat is inevitable, shortly after beginning the game and the player has fled out into the garden district there is no option but to engage in a gladiatorial fighting pit to proceed in the narrative. The weapons are brutal at times, mostly being melee everyday objects such as a crowbar, cricket bat or a lead pipe, brutality is very much a strong leading theme in *We Happy Few*.

## **9 - Developing an uncanny video game using UE4**

Keeping in mind the previous discussion surrounding the four presented video games in the written area of my research, I would like to invite the reader to watch the video attached to this thesis. The video is of the game I developed as a practical exploration of digital uncanny, which is discussed in this chapter. Over a period of nine months, I worked on designing and developing the video game through incorporating elements of the uncanny taken from my analysis of media texts presented in the previous chapters.

I created the game using the software UE4 alongside a character creation software called MetaHumans. I hired a sound designer to create the soundtracks and used a voice generating software called Replica Studios to create the spoken dialogue. Due to time constraints, I opted to use free, premade assets available on the Epic Games marketplace, all assets were chosen due to specific design elements in an attempt to create a digital uncanny experience. Some assets were altered in UE4, e.g., the colours of foliage were adapted to present the indication of disease and decay. The aesthetic and sound design choices were inspired by the video games discussed in the previous chapters. In this chapter, I discuss the process of designing and developing the video game.

## 9.1 - Designing the game

When considering the options for setting and location of the digital space, I considered both rural and urban environments. Rural landscapes include any natural setting, whereas urban environments are any setting that is constructed. The intention was to consider how the environment and architecture in certain locations could prompt stirrings of the uncanny. Within these categories there is a vast range of possibilities. Rural settings open up the realm of texts such as *Wickerman* (1973), *Blair Witch* video game (2018), and *The Forest* video game (2014), where the claustrophobic, intimidating and often ancient land is the platform on which horrific circumstances meet the spectator/player. Planets in science fiction games such as *No Man's Sky* (2016) or the undersea locations in *SOMA* (2015) would also be included within the rural category as they are natural and not constructed by one entity or another. Urban settings concern those which have been created, manufactured, or assembled by a living being, not necessarily human. These are buildings (haunted and otherwise), settlements (rural civilisations or skyscraper infested cities), and spaceships or stations such as in *Dead Space* (2008), and *SOMA*. Considering the uncanny as the primal response to distrust in our sensorial survival instincts, I chose to explore a rural environment in the video game I created. Specifically, I chose to engage with woodlands due to the anthropological implications of woodlands as the setting for the original, ancestral tribe, when humankind relied on distinction of threat and ally for survival.

I began by choosing the trees for my environment in the marketplace. At this point I had watched *Wickerman and Blair Witch Project* (1999), among other horror films with a woodland setting. However, the main source of inspiration came from the video games *The Forest* and *Plague Tale: Innocence*. The woodlands in horror films can be presented in an impressively claustrophobic and imposing way. However, the engagement afforded as a player in video games adds further immersive and interactive dimensions not present in spectatorship. Disease and decay are strong underlying elements for the design of 'uncanny' games. Disease is uncanny due to the ways it behaves within a person and the repulsion it often sets off in others when perceiving sickness. Once again, it is this idea that the uncanny is something rotting beneath the surface out of sight until it springs forth to infect others in the same manner as disease.

Autumn is the season in which rot and decay become an intrinsic part of the natural world, disease is also fruitful during this season due to the ideal climate conditions for fungal disease in plants. There is an uncanniness in the aesthetics of autumn itself, with the changing colours and the almost supernatural light at certain points of the day. *Plague Tale: Innocence* incorporates this autumnal palette [see figure 8], their natural environment is striking and memorable because of the way colour has been explored. Symbolically, it is also unsurprising that the game has been placed within an autumnal setting. The connection between Hugo and nature is determined through his disease, the

links between himself and the rats, alongside the corruption of the landscape by the nests which begin to populate the game space.



*Figure 8 - Plague Tale: Innocence*

I modelled the woodlands in the uncanny video game similarly to *Plague Tale: Innocence* by using assets for pine and birch trees of varying sizes and changing the colours of the leaves on the birches to a sickly yellow brown to denote disease and decay. The pine trees were used due to their immense size and the width of the dense foliage which would create dynamic shadows and cover open spaces. The birches were chosen for the autumnal design potential, but also for the twisting white trunks which aided in the whitewashed palette I had hoped to achieve [figure 9].



*Figure 9 - Screenshot from digital artefact*

Summarising Walter Benjamin, Vidler explores how the urbanisation of civilisation could impact the societal experience of the uncanny and branch into the concept of unhomely. He ventures that this psychological phenomenon “was also born out of the rise of the great cities, their disturbingly

heterogeneous crowds and newly scaled spaces demanding a point of reference that, while not refuting a certain instability, nevertheless served to dominate it aesthetically”<sup>93</sup>. It is important that when determining the potential for designing uncanny in the digital space, we consider urban settings. Therefore, I also chose to include housing settlements within the woodland landscape. Taking inspiration from *We Happy Few* and *Plague Tale: Innocence*, I designed two settlements within the game to juxtapose the natural and man-made potential of the unhomely. This was intended to explore the relationship between the primal aspect of uncanny in the natural environment versus the urbanised experience of uncanny in the home environment.

The colour palette was inspired by *Plague Tale: Innocence* and was designed to impress the idea of decay and disease hidden within the base design elements of the game. The intention was to create a subconscious overriding sensation of distrust and hidden threat, keeping in mind “something that should have remained hidden and has come into the open”<sup>94</sup>. By illuminating the scene in broad daylight, it allows the darker imagery such as the blood splatters, foreboding graffiti and tiny skeletal hands which litter the woodland pathway to be seen and recognised.

Lighting is a valuable tool when designing video game atmospheres and environments, as discussed in the earlier chapter concerning lighting in video games. Therefore, it was a key element I needed to consider when designing my game in UE4. To understand the practical applications of light, I researched methods in which lighting for emotive impact have been considered. Kelvin’s colour temperature scale [figure 10] explains how natural lighting which sits on the scale between 5000k and 1000k is warmer than the cooler tones set between 6000k and 10000k.

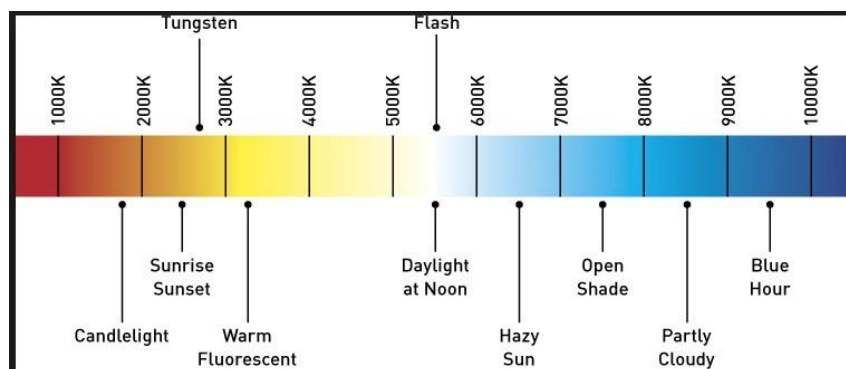


Figure 10 - Kelvin's Colour Temperature Scale

This is often considered in our own homes when deciding whether to opt for warm or cold white lighting, but it can also be a useful way to consider the lighting design for interactive scenes. When designing the video game for this study, I considered how the uncanny presents itself within

<sup>93</sup> Vidler, Anthony, *The Architectural Uncanny*, (Massachusetts: The MIT Press, 1992), page 4

<sup>94</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 148

familiarity acting outside of the bounds of normality, and how it can be seen as “the notion of the hidden and the dangerous”<sup>95</sup>. With this in mind, and the ways in which certain expectations for colour and lighting within horror video games has developed, I cultivated the lighting to a specific design. Opting for a spotlight which would drown the entire scene in a bright light between ‘daylight at noon’ and 6000k, the intention was to build an uncomfortable sense of familiarity in a scenario which felt out of place. I also designed the lighting to encourage a grainier and whiter colour palette to give the subtext of degradation and disease [figure 11]. Throughout the game, the lighting doesn’t change except with the shadows cast by the looming treeline which runs along the perimeter of the space, pushing the player onwards and forwards. I designed the interior lighting as minimally as possible; the main source of light is the singular spotlight illuminating the entire level with the addition of lit candle clusters.



*Figure 11 - Screenshot of digital artefact*

The third section of the game was inspired by the juxtaposed design of *We Happy Few* and Bakhtin’s carnivalesque. I added a butcher’s shack with a decadent, café style interior which would serve to be an experiment in juxtaposition, carnivalesque and surrealism. I implemented a lot of juxtaposed imagery centring around degradation and wealth, shown through the bronze with black paisley style wallpaper to which I added damp and rust decals to emphasise decay. Outside there are splashes of blood on the sickly-looking berry bushes which are thriving with berries. I achieved this effect by altering the colour of the vibrant berry bush assets from a lush green to a pale yellow, as yellowing indicates nutrient deficiencies in plants or low light. I added elements of sickness to these plants to present an aura of underlying sickness in an otherwise fruitful environment. The bright daylight used to illuminate the scene indicates a lacking in the horticultural environment in otherwise perfect circumstances. Inside the shack, there are tall golden urns that line the wall, next to

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<sup>95</sup>Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 134



which is a worn wooden butcher's table littered with instruments and covered in blood which has splashed against the decadent wallpaper [figure 12]. I chose bright, vibrant furniture in colours symbolic of richness and wealth, the silken blues and pinks of the soft furnishings connoting royalty and prosperity [figure 13]. The rug on the worn wooden floorboards was chosen for its design, the material is the same design as the soft furnishings, but it is crumpled and turned up on the edges rather than pulled out and well cared for.



*Figure 12 - Screenshot of digital artefact*



*Figure 13 - Screenshot of digital artefact*

In the corner of the room, I added a cage with six pigs inside, which I shrunk to an uncomfortably small size. I created the Butcher character who stands in front of the cage using MetaHumans, a new character creation software. The man was designed using Bakhtin's carnivalesque imagery, his doughy physique, greasy skin, and grotesquely slumped posture was intended to unsettle the player. I decided to use one word repeated for his dialogue, "unsustainable." This scene was designed to

indicate a diminishment in the resources of this settlement, as there were no other animals present within the level. I was experimenting with the subtext of a diseased, decaying society manifesting the uncanny. The colour palette, visual imagery and sound of this area was constructed to emphasise the uncanniness presented within juxtaposed imagery.

I explored Freud's interpretation of repetition as an uncanny prompt when designing the video game. The main element of this was a repetition of the number six. In the first settlement, there were six houses neatly lined in a very purposeful manner [figure 14 and 15]. I ensured the distance between the houses was equal by carefully calculating the coordinates.



*Figure 14 - Screenshot of digital artefact*



*Figure 15 - Screenshot of digital artefact*

The second settlement comprises five houses and one barn, and six blood splattered graves. Continuing with the theme of repetition I included a dead, withering tree in a whitewashed aesthetic

which I placed throughout the game [figure 16]. I included this tree due to its aesthetic which juxtaposes the full-bodied birch and pine trees making up the surrounding woodlands.



*Figure 16 - Screenshot of digital artefact*

Shifting, moving environments really intrigue me as a player, they help to create a sense of disorientation through sensorial manipulation, this is key in my interpretation of the uncanny. To create this effect, I used the landscape sculpting tool in UE4 on the woodland path which leads to the sacrificial area. I sculpted into the ground to create a rollercoaster movement effect intended to disorientate and confuse the player. The landscape also emphasises the claustrophobic space by raising the background to create layer upon layer of foreboding, oppressive woodland.

Finally, the final destination in the game is a sacrificial area [figure 16]. This was the first area I created and had initially intended it to be the opening encounter, with the butcher's cafe being the second. However, after delving into the concept of the uncanny residing beneath layers of mistruths I decided to make something realistic rather than surreal as the introduction into the game.

## 9.2 - Creating uncanny sound

Roux-Girard states, “sounds contribute to the gamer’s immersion: they construct the mood of the game”<sup>96</sup> meaning sound was a vital component to engage a player in an uncanny experience. When designing the sound for this uncanny game, I approached sound designer, Rewan Leach. Leach worked from a brief I provided where I stated the main intention as designing a digital uncanny experience using audio-visual prompting. We worked together and decided on four separate soundscapes - a combination of music and effects - with the overall intention to engender some form of negative emotion associated with the uncanny. I provided Leach with soundtracks and examples of the effects within the *Layers of Fear*, *We Happy Few* and *Plague Tale: Innocence* scores to recognise elements I had pinpointed as uncanny sound and to incorporate these elements within my uncanny video game.

Due to the personal aspect of the uncanny and the differing ways in which individuals can perceive this phenomenon, I did not want to give Leach too much direction. I did however assign a brief for each area, as follows:

1. Subtle, unsettling, almost hopeful. Melodic.
2. Unnerving, passive aggression, focus on layers of emotion - ‘something that lies beneath the surface.’ Mixture of melodic and abstract eeriness.
3. Confused, eerie, unsettling, trying to invoke primal fear response. Abstract eeriness.
4. Tense, threatening, predator versus prey instinctual response. Melodic.

When the soundtracks had been created, I implemented them into UE4. Once the sound files were in UE4, I placed trigger boxes around the areas where the sound would play, adding a fade out and fade in effect. This allowed the player to move from one area to another with the sound blending in to create an immersive experience.

Within the first, second and third soundtracks Leach created he added birdsong, which had been distorted and manipulated. At times, the sounds resemble children shouting or crying out which is an interesting and unintended result, as at the time Leach was not aware of the context of child abduction in the story. The distorted birdsong relates to Ball’s concept discussed in their thesis regarding the uncanny in *Ringu* (1998) and *Ring* (2002), that the iconic phone ring sound distorted

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<sup>96</sup> Roux-Girard, Guillaume, ‘Listening to Fear: A Study of Sound in Horror Computer Games’ in *Game Sound Technology and Player Interaction: Concepts and Developments*, ed by Mark Grimshaw, (USA: IGI Global, 2011), pp 192-212, page 199

creates uncanny sound<sup>97</sup>. However, as Grimshaw points out, changing a sound out of context does not make it inherently uncanny, it is the connotations attached to the sound which allows the uncanny to break forth. Grimshaw states “the context of the ring plays an important role...it is signalled early as an apprehensive aural cue, a threat stimulus event”<sup>98</sup>. The distorted birdsong is part of the atmospheric core of my uncanny game from the offset. The intention was to incorporate this idea of an “apprehensive aural cue” which would subconsciously linger in the backdrop of the experience.

Dialogue was made for the video game, but due to time constraints a voice generator was used which impacted the potential for uncanny elements being manifested in the voices of the NPC. However, the other option was to opt for text-based speech which I feel would have had less impact manifesting uncanny through design.

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<sup>97</sup> Ball, Sarah, ‘The Uncanny in Japanese and American Horror Film: Hideo Nakata's Ringu and Gore Verbinski's Ring’ (unpublished master’s dissertation, North Carolina State University, 2006).

<sup>98</sup>Grimshaw, Mark, ‘The audio Uncanny Valley: Sound, fear and the horror game,’ *Games Computing and Creative Technologies: Conference Papers (Peer-Reviewed)*, paper 9, page 3

### 9.3 The Playthroughs and Data Collection

I invited participants to play through the completed game and feedback their experience. The Ethics Committee within the Department of Theatre, Film, Television, and Interactive Media at the University of York approved this study. The questionnaire focused on establishing whether the design elements prompted an emotional response in the individual players. The aim of asking participants to offer emotional and psychological feedback on the game, was to see whether the game I created achieves an uncanny effect from their perspective.

When considering who I would approach to invite into the playthrough aspect of this study, I explored the personality types of those who enjoy horror media. Nickel's states how those who consume horror do not experience a detached response to the horrific scenes played out on the screen, describing it as "a morally *engaged* reaction"<sup>99</sup>. Norman presented the findings of an online survey that intended to discover information about consumers of horror and potential links in personality types. Amongst other interesting observations regarding self-esteem, sensation seeking, loneliness, depression, social isolation, psychopathy, and educational status<sup>100</sup>, Norman refers to Zuckerman & Little's predictors of "low neuroticism and high sensation seeking"<sup>101</sup>. In another survey titled 'Horror, Personality, and Threat Simulation: A Survey on the Psychology of Scary Media,' similar findings were recorded. The survey and subsequent paper sought to "provide support for the threat simulation theory of horror, according to which horror media provides a form of benign masochism that offers negative emotional stimulation through simulation of threat scenarios"<sup>102</sup>. Considering this and what we already know regarding the content of horror and its ability to, as Nickel's states, "provoke outrage, fear, and disgust"<sup>103</sup>, it is unsurprisingly that a similar remark was made in this paper how "such vicarious experience is likely to be especially attractive to individuals with a certain personality profile - conceivably, those high in sensation seeking and openness to experience"<sup>104</sup>. I argue then, that consumers of horror in whichever format they choose could be more open and aware of the sensation and emotion provoked by instances of the uncanny. I

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<sup>99</sup> Nickel, Philip J., 'Horror and the Idea of Everyday Life,' in *The Philosophy of Horror*, ed. by Thomas Fahy, (Kentucky: The University Press of Kentucky, 2012), pp 14-32, page 16

<sup>100</sup> Norman, Jonathan, 'Personality Types and the Enjoyment of Horror Movies,' in *Journal of Social and Psychological Sciences*, 11:2018, pp 56-84

<sup>101</sup> Norman, Jonathan, 'Personality Types and the Enjoyment of Horror Movies,' in *Journal of Social and Psychological Sciences*, 11:2018, pp 56-84, page 56

<sup>102</sup> Clasen Mathias, Kjeldgaard-Christiansen Jens, Johnson A. John, 'Horror, Personality, and Threat Simulation: A Survey on the Psychology of Scary Media,' in *Evolutionary Behavioural Sciences*, (14:2020), pp 213-230, page 213

<sup>103</sup> Nickel, Philip J., 'Horror and the Idea of Everyday Life,' in *The Philosophy of Horror*, ed. by Thomas Fahy, (Kentucky: The University Press of Kentucky, 2012), pp 14-32, page 14

<sup>104</sup> Clasen Mathias, Kjeldgaard-Christiansen Jens, Johnson A. John, 'Horror, Personality, and Threat Simulation: A Survey on the Psychology of Scary Media,' in *Evolutionary Behavioural Sciences*, (14:2020), pp 213-230, page 215

pose this question, could those who engage in video games, and by extension horror video games, be more susceptible to stirrings of the uncanny?

This is something I considered when first seeking the participants to engage in the playthroughs, and why I chose to mention horror in the call for participants. I reached out to the students in the Department of Television, Film, Theatre, and Interactive Media [TFTI] at the University of York. In the call for participants, I stated that:

I have created a video game based on a peculiar branch of psychology often present within horror\* video games. I am looking for **video game enthusiasts** who would be willing to play through this game and feedback their personal thoughts, experience and opinions.

\*Please don't let the 'horror' put you off though, it isn't scary or particularly gory, and I'd love to meet some of you who aren't particularly interested in horror games too.

There are some **mild visual stimuli** which may offend, such as **blood spatters**. There are references to child abduction, sacrifice and a tense soundtrack.

Due to the impact of COVID19 during the time in which this evaluation took place, I was only able to recruit four participants. This study was undertaken for a MSc by research project on a limited timeline, so I was unable to wait to recruit as many participants as I would have hoped for. However, the quality of insights provided by those four participants due to their knowledge of both critical theory and design in media was significant. Should this study be revisited in further publication, I intend to run further playthrough evaluations with a wider participation pool.

I chose to recruit students from the TFTI department specifically, as I was hoping to gain responses that would reflect a cognitive and analytical perspective.

This is something that these students would likely be able to provide due to the nature of their studies. Two of these participants were first year Film and Television production students, two were second year Interactive Media students. The call for participants advertised the game as being in a Gothic style with mild horror elements and that I was hoping to discover the psychological impact of video game design. However, they were not told that the psychological effect in mind was the uncanny.

The participants were invited to play through the video game on computers set up in a TFTI department room, when they arrived, they were given physical copies of a questionnaire I had written for the purpose of my research. Once they had played through the game individually, I asked

them to fill out the questionnaire. The full questionnaire is included in Appendix A. Examples of some questions asked were:

Q: Can you identify if the lighting within the game had any emotional impact on you?

- None at all
- A little
- A lot
- I don't know

Could you elaborate on your answer with a sentence or two to describe (if any) emotions you experienced from the lighting whilst playing the game?

Q: Did you find any of the following visual stimuli emotionally striking in any way? (I.E, disturbing, uncomfortable, intriguing, indistinct).

- Images of blood and gore
- Repetition of imagery or patterns
- The surrounding woodlands
- The architecture
- The colours and textures of the environment
- Other (please specify)

Q: I'd like you to now expand on your previous answer, what was it (if anything) that you felt or thought when you encountered this imagery? Could you explain why it made you feel this way? (Feel free to give brief, bullet points or longer descriptions. A simple 'I don't know!' would also be welcome.

Q: Can you identify any emotional response to this soundtrack?

Can you define why?



An informal discussion followed this, and the participants were fully debriefed and told the intention of my research project was to understand uncanny design in video games. The analysis that follows is primarily based on the questionnaire data. They were asked four demographic questions: what gender they identified as, how often they played video games, what their preferred genre of game was, and lastly how often they chose to engage with horror video games. The results are as follows:

<b>Participant:</b>	<b>Identifies as:</b>	<b>Plays games:</b>	<b>Preferred genre:</b>	<b>Engages with horror games:</b>
<b>P1</b>	<b>F</b>	<b>Daily</b>	<b>Simulator</b>	<b>Occasionally</b>
<b>P2</b>	<b>M</b>	<b>3-6 per week</b>	<b>Role-playing game [RPG]</b>	<b>Whenever able</b>
<b>P3</b>	<b>M</b>	<b>1-3 per week</b>	<b>Strategy, Indie</b>	<b>Occasionally</b>
<b>P4</b>	<b>F</b>	<b>1-3 per week</b>	<b>RPG, Sandbox, Rhythm Games</b>	<b>Occasionally [on a social level, they do not play alone]</b>

In order to appropriately manage the data collected from the participants in these playthroughs, I analyse the data using the methodology of Reflexive Thematic Analysis. This method is appropriate for the work due to the reflective nature of this research as I was the researcher, video game player, and video game developer. This methodology focuses on the researcher identifying initial codes (labels that highlight important features) within the qualitative data and developing key themes and patterns. Once the themes had been finalised, I was able to contextualise these in relation to previous studies of the uncanny, and my close analysis of the texts of interest. As the main intention of this research question is to explore and further understand the presence of a psychological phenomenon brought forth via game design, the designated themes reflect this fact. They are as follows:

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### **Emotional response**

This theme considers how the participants reflected on the game in terms of *emotional impact* and *response*; how did the design of the game make them *feel*?

### **Sensorial response**

This theme considers how the participants engaged with the *auditory* and *visual* design of the game; what *audio* or *visual* design elements did they notice within the game?

### **Intellectual and cognitive response**

This theme considers the *intellectual*, *conceptual*, *reflective*, and *cognitive* responses to the game and the design elements; how did the participants rationalise their feelings within the game?

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The collected responses from these four participants were extensive and rich in relevant content. Unfortunately, I have had to go through these questionnaires and choose specific responses to discuss in the following chapter titled Discussion of Findings. The responses given by all participants were often paragraphs of prose, some gave in depth accounts of personal experiences that the gameplay or design made them recall. I have selected quotations that demonstrate the Emotional, Sensorial, and Intellectual/Cognitive themes I identified through the RTA approach. I then refined the still extensive amount of relevant data which had been sorted into these themes to consider which were most relevant to my research question and intentions. The responses chosen for inclusion here are those that helped answer the question of whether specific design choices within a video game development could help create an uncanny experience.

## 10 Discussion of findings

The aim of this research by creative practice was to discover whether something as personal and individually experienced as the uncanny could be drawn upon intentionally in the audiovisual design of a video game. The elements to I shall discuss in the next section were intentionally placed to determine whether they could aid in creating a framework of digital uncanny. Does a choice of daytime noon lighting impact the perception of the player enough to catch them off guard when the predetermined expectations of horror are darkness and gloom? Does a whitewashed colour scheme, and blue-lit scene create a sense of unease, indicate disease, and decay, and indicate that something is not quite right? These points have been discussed in some format or another in the following discussion of findings regarding my video game playthroughs.

However, an interesting phenomenon occurred in this process, which is worth noting, the presence of accidental uncanny. That is, the uncanny showing through because of elements in the design that were not intentionally created to be uncanny but were the product of design shortfalls or “accidents”. To better explain this, I have broken this discussion down into two sections. Firstly, we look at the intentional uncanny and consider the features I had purposefully included in the design, we then look at the accidental uncanny where I discuss unanticipated results of uncanny in the design. The purpose of this research was to explore the potential for an uncanny design framework and to shed light on the research by creative practice methodology which can be harnessed to benefit game developers and academics in the field.

The participant responses which have been quoted in the following chapters were collected from the questionnaire handed out in physical format on the day of the playthroughs.

## 10.1 Intentional uncanny in video game design

This research project hoped to gain further understanding of the potential for designing digital uncanny experiences. An inherently complicated phenomenon, transient and flexible by nature, manifesting the uncanny through digital design is an intriguing prospect. To understand this complex psychological state triggered via sensorial recognition and interpretation, we need to remember Jentsch and Freud's position, "the fact that people differ greatly in their sensitivity to this kind of feeling"<sup>105</sup>. For this reason, it is reasonable to assume that something which Freud translates as eerie, frightening, uncomfortable, demonic, gruesome<sup>106</sup>, would be at home in the realm of horror. The linguistic interpretation of horror being within this same context of frightening, demonic, gruesome, etc. I refer to Clasen, Kjeldgaard-Christiansen, and Johnson's study concerning the personalities behind consumers of horror. The study presented the position that those attracted to horror entertainment would likely have a predisposition to "sensation seeking and openness to experience"<sup>107</sup>.

Therefore, when considering how I would approach the video game created in UE4, it seemed appropriate to look at how often the participants played horror video games to contextualise their answers. I theorised that those who play horror games are more open to experience and sensation seeking and therefore may be more susceptible to experiencing uncanny, due to having more "sensitivity to this kind of feeling"<sup>108</sup>. I have taken into consideration, where relevant, in the discussion of the playthroughs and questionnaire data collected, the participant responses to how often they engage with horror games.

In the questionnaire I had written for this evaluation, the participants were asked to comment on any visual elements of the design that had had an emotional impact upon them. P1 reflected on this area in an emotional manner which also indicated a sensorial response to the visual design by stating how they "saw the pigs trapped in a cage and the table of blood, plus the axe in front of the house. It reminded me of home in a way. I grew up on a farm, and have seen a lot of pigs being butchered...I wasn't so negatively affected that I was frightened. But it definitely made me intrigued and reminiscent...That in turn, caused me a feeling of wary, and oddly enough, nostalgia in a depressing kind of way that reminded me of horrific things I've seen as a child". This is quite an impacting statement, especially coming from an area I, as the designer, had not identified as being particularly triggering but was included as more of a showcase of how juxtaposition could emphasise the impact

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<sup>105</sup>Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 124

<sup>106</sup> Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 125

<sup>107</sup> Clasen Mathias, Kjeldgaard-Christiansen Jens, Johnson A. John, 'Horror, Personality, and Threat Simulation: A Survey on the Psychology of Scary Media', in *Evolutionary Behavioural Sciences*, (14:2020), pp 213-230, page 215

<sup>108</sup>Freud, Sigmund, *The Uncanny*, (London: Penguin Group, 2003), page 124

of disease and decay in uncanny media. It is worth noting here that although the emotional response which the participant experienced was not intentional, the design which was used to showcase uncanny juxtaposition was. Therefore, this was an intentional design choice, with an unintentional reaction, meaning it falls within the intentional uncanny aspect of this model, rather than accidental. The use of language such as “intrigued, reminiscent, wary and nostalgia” are excellent examples of the ways in which the uncanny manifested in video games can psychologically impact the receiver. It is worth noting that although the participant did mention how they were not frightened, this research is not exploring how the uncanny presents itself as an inherently frightening or scary experience. Instead, I am attempting to uncover how remnants of the uncanny presents as an unnerving experience when perception of the perceiver is manipulated in some form. Referring to the idea that the fear behind an experience of the uncanny is not fear of the stimuli itself, but a primal urge which indicates the potential for our survival instincts to trick us into threat.

P3 response to the above question, suggested a cognitive theme interlinked with a sensorial response triggered via the uncomfortable imagery. They said the “blood on the table beside the pig’s cage felt metaphorical of what’s about to happen” and P4 stated “the furniture looks out of place, and the candle clusters on the shelves certainly give it a ‘summoning demon’ vibe, it is quite unsettling”. There was an intention to use the pigs as both a metaphorical hint towards the butchery of the children which was taking place, but also the pigs and butcher block was meant to indicate a breakdown in food supply. The decision behind this is due to the broken society as a trigger of uncanny theory, as well as the primal aspects of the uncanny explored in the psychological component of the research. A diminishing food chain establishes the fact of a diminishing and decaying societal structure, but starvation is also a base primal fear. When we consider the primal element of the psychology behind the perception of the uncanny, fear of starvation and threat to children is a biological trigger.

When invited to comment on their response to the lighting in the game, the participants had a mixed response. P1, 3 and 4 reported that the lighting had ‘a little’ emotional impact upon them, while P1 noted that it had had ‘a lot’ of impact. Interestingly, P2 who plays video game ‘whenever they are able to’, mentioned the uncanny from the offset when describing the lighting as helping to “build a sense of unease through the uncanny, mostly due to it being day, as opposed to more stereotypical night settings within horror”. This Intellectual and Cognitive statement sheds light on how the participant is aware of the uncanny as an effect, and how they reflected upon how they felt it had been achieved. Creating unease through a subversion of the expectations of horror was a design choice. The intention was to better understand the capabilities of the uncanny creeping through as something behaving out of the bounds of subjective expectation.

P3 describes the lighting as using “washed out colours” causing a “sense of panic (and) urgency”. They write that the “scene carried out in broad daylight gives a sense of false security”, they commented this is because “you can see everything clearly, but still consciously know it's a horror game”. They also describe the ‘situation’ as “looking bleak”. It is possible that by describing the game as being in a horror style in the advert, the participants were perhaps swayed to expect something more in keeping with horror. However, it was a requirement of the Ethics committee that participants were aware they would be playing a horror themed game. Regardless, the participants did mention key emotional phrases which were aimed for in the design of the game. I.E: panic, urgency, false security.

P4 reported that the lighting brought anticipation, although they noted that they were not scared. This was a common thread in this participant’s answers, that although they recognised certain emotions such as unsettling, anticipation, on edge, strange, repulsive, morbid, fascinating, and dark, they commented how they were not scared. This reinforces the suggestion that the uncanny is not necessarily fear of the encounter, but fear of how the encounter triggers distrust in our sensorial recognition.

When asked if any visual imagery within the game design was emotionally striking to them, P1, 2 and 3 noted the surrounding woodlands. P2 stated how “the assets used are able to create a very specific emotion linked to the previous uses of similar imagery from horror media”. They also mentioned the Blair Witch video game, The Ritual film and The Wickerman film. They end their statement by venturing that “the seemingly endless woodland and it’s [sic] repeated textures are able to build a sense of claustrophobia”.

In the first settlement, there are six identical houses positioned in matched distance from one another [figure 14 and 15 in chapter 7.1]. P3 stated how the “houses spaced apart in a grid-like structure in the first part is a little discomfoting”. They said it gave the impression of an “abandoned settlement.” The houses were designed in this way to be disconcerting, to give the impression of uniformity and conformist civilisation. The intention was to build the scene with layers building up a sense of the uncanny from real to surreal as the player explored the scene. The idea being that something lies just beneath the surface and as the skin becomes more transparent, the disease and rot begins to rise to the surface. Therefore, the recognition of the design style of these houses is positive, although the impact of the participant is not what I had anticipated it is interesting that they referred to it as “abandoned” and “discomfoting” as this does fall into the premise of uncanny civilisation which I have been exploring. The idea that a society acting out of place and against the norm is inherently uncanny due to the aspect of something not acting in the way it is expected or anticipated to. P4 stated how “the repeating...houses are a bit unsettling as no district of houses should look that

uniform if people lived there”. It is interesting that two participants noted the uniform houses and how it is not what you come to expect of settlements located within the United Kingdom.

Moving onto consider sound, the participants were told that each area had its own unique soundtrack with the intention of enhancing emotional response. They were asked if they could identify any emotional response within the soundtrack, all four wrote of how they were impacted in one way or another to varying degrees. P1 responded to the question by saying “there was a point, going through the woods where the soundtrack suddenly stopped. I was afraid that if I turned back I would see something. It also made me feel alert, so in turn I just moved around in the game as quickly as I could. The soundtrack helped give me a sense of false security, so when it stopped I felt like something wrong was going to happen”. A couple of interesting words which stand out in this statement are alert, afraid, false security and wrong. The participant’s answer falls into two of our themes here, being of an emotional nature but also reflecting in a cognitive manner on why they as the player responded by moving as quickly as they could. It is interesting how games which prompt fearful emotions cause the amygdala to trigger your nervous system, setting the player into fight or flight mode when the ‘threat’ is on screen and does pose any true danger.

When immersed in the woodlands P1 describes themselves as feeling “afraid of what (they) may find”. The lighting becomes darker in the woodlands and the participant states they were “on edge whenever it got dark”. Once it was lighter it “helped put them at ease” although, “it was still somewhat unnerving”. This is an interesting perspective because the darkening of the woods was unintentional as a design tool. The intention was to create the woodlands so thick that it would persuade the player to stick to the path and discourage exploration into the less populated areas. The lighting in the populated areas was of course intentional and chosen to create a false sense of security and to place the player into a state of uncertainty. It was also aimed to be a juxtaposition of the graphic imagery the player would encounter such as the butcher’s cafe and sacrificial trees placed around the game space. This brings us into the section regarding accidental uncanny in video game design.

## 10.2 Accidental uncanny in video game design

In the previous section, I discussed elements that I intentionally included within the design of my uncanny video game based around the close analysis of the four games which present my interpretation of uncanny in different ways. With these in mind, I presented some of the responses fed back to me by the participants in the playthroughs. However, there were some interesting comments about certain aspects of design which I had not intended to be perceived as uncanny. These elements could in fact be perceived as flaws in design and were often the result of time constraints in the project.

As previously stated, this study was for an MSc by research, therefore time was a factor in what I could and could not hope to achieve within a 1-year timeframe for research, design, development, and evaluation. This inevitably led to some shortcuts in implementation to achieve desired results as quickly as possible. Some of these shortcuts had an accidental uncanny impact upon the game, and on the participants in the study. These shortcuts in design were the non-player character (NPC) movement and aesthetic, and the text-to-speech dialogue. When designing the NPCs, I decided to use a realistic graphic style rather than low poly or cartooned. The uncanny phenomenon works on the principle that something must be both familiar and unfamiliar to cause discomfort and distrust. So, it made sense to choose realistic looking NPCs to create affinity between the player and the characters. However, this process was largely impacted by budget and time, the availability of free realistic character models and assets on the Unreal Engine Marketplace meant that I had to explore making my own. Earlier in the year I had become aware of a new software which looked promising for aiding the character creation process for realistic NPCs. Epic Games' MetaHuman Creator was available for early access a few months before I approached the character creation portion of the video game development. I used the software to create some characters and integrated them into UE4 and once I had enabled movement through blueprints, they were the basic level of what I wanted. However, I did not have time to animate them and so I used the default mannequin motion available in UE4. In the playthroughs, the participants were questioned regarding their response to the NPCs, and P4 who had previously been hesitant in their experiences of discomfort in the game responded in a way which encompassed all of the themes. They commented on how "the way the first four NPCs just wander around randomly and heaves when idle is unsettling, strange, and slightly repulsive. Especially when later on all of the NPCs stand idly with the same motions". This response discusses their *emotional* response triggered by a *sensorial* experience and explains why they believe this happened with a *cognitive and intellectual* response. This phenomenon that compels someone to feel repulsion and disgust at the sight of an artificial representation of a human is related to Mori's uncanny valley. Mori discussed how the aesthetic and movement of a robotic



representation of a human impacted the psychological response in humans<sup>109</sup>. P4's negative reaction to the movement of the NPCs could be explained with an example given by Mori in his paper. He theorised that "the velocity, acceleration, and deceleration must approximate human movement"<sup>110</sup>. As the designer for the uncanny video game, I did not have the time or tools to ensure that the NPCs had the appropriate movement to replicate the ways in which humans move. I slowed some of the NPCs movement down, to create diversity, and replicate age or other human attributes that affect the speed at which we move, but I did not create realistic movement. Interestingly, this accidental design feature moved the NPCs into the uncanny valley thus creating an uncanny experience for the participant.

Angela Tinwell has discussed the concept that the presence of the uncanny valley when engaging with animated characters, could be down to the accurate representation and recognition of empathy<sup>111</sup>. This is an interesting concept, in which Tinwell explores how appropriate facial expressions can impact the reception of the uncanny valley. The NPCs in the uncanny video game created for this study were left without any form of facial animation. In 2009 Tinwell and Mark Grimshaw<sup>112</sup> completed a study to determine the impact of motion and sound in animated survival horror video game characters on an individual's perception of eeriness. The study results indicated that motion and sound could impact the perception of the uncanny valley in animated characters. In reference to this study, Tinwell writes how the findings "indicated that a perceived lack of human-likeness in facial expression exaggerated the uncanny in virtual characters with human-like appearance<sup>113</sup>". When the participants of the uncanny video game evaluation were questioned on their response to the NPCs, P2 recognised their dislike of the aesthetic. They reported how "some of the characters, I.E. Children look odd and it may, somewhat, 'repulse' the player to an extent due to their uncanny appearance".

On reflection, I wonder whether this lack of facial expression in my uncanny video game design helped to reinforce the sense of repulsion reported to be felt towards the NPCs. It is also worth noting, that the characteristics of the children in the early release MetaHuman creator software made it difficult to actually create genuine young characters. Lastly, on the subject of NPC aesthetics, subverting the expectations appeared to have an impact on the participants. P3 reported "the NPCs were wearing brightly coloured garments (yellow, purple, etc) which gave an uncanny, innocent feel,

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<sup>109</sup> Mori, Masahiro & MacDorman, Karl & Kageki, Norri. 'The Uncanny Valley [From the Field]', in *IEEE Robotics & Automation Magazine*, 19:2012, pp 98-100.

<sup>110</sup> Mori, Masahiro & MacDorman, Karl & Kageki, Norri. 'The Uncanny Valley [From the Field]', in *IEEE Robotics & Automation Magazine*, 19:2012, pp 98-100.

<sup>111</sup> Tinwell, Angela, *The Uncanny Valley in Games and Animation*, (New York: CRC Press, 2015)

<sup>112</sup> Tinwell, Angela and Grimshaw, Mark. Survival horror games - an uncanny modality. in 'Games Computing and Creative Technologies: Conference Papers (Peer-Reviewed)' (2009: paper 11)

<sup>113</sup> Tinwell, Angela, *The Uncanny Valley in Games and Animation*, (New York: CRC Press, 2015), page 71

while subconsciously knowing it's a horror game". This was also a product of the constraints of software, at the time of creation the clothing available in early release on MetaHuman creator meant that the characters were wearing vivid, casual clothing which didn't quite fit with the environment aesthetic. Interestingly, this was something I did not notice until after I had fully animated the characters and played through the final product. However, I was quite happy with the effect as it was one of the main design aspects that stirred my own individual perception of the uncanny.

The dialogue for the video game was created through a text-to-speech software, Replica Studios. The original plan was to use voice actors to create a more realistic experience, however there was insufficient time to bring this to fruition. Once the dialogue audio clips were created, I integrated them into UE4 and used trigger boxes rather than a click-and-speak. This meant that as the player walked over the invisible boxes, the dialogue would begin. It was a quick, and easy way to have dialogue in the game. However, this did mean that the dialogue loops if the player goes over the same box multiple times and it can get repetitive. Surprisingly, this did not have an altogether negative impact on the evaluation findings, with P2 and P4 commenting specifically on the dialogue in their questionnaires. P4 wrote that "repeating, same dialogue over and over again when I go near NPCs makes me uncomfortable... I dislike how the man calls after me asking if I need help, he unsettles me. The dialogue was blunt and emotionless, he sounded like he didn't want me to be around anymore". Finally, in relation to the dialogue and NPC they stated, "it's the triggering of repeated dialogue that unsettles me". P2's response falls within the *cognitive and intellectual* theme of the evaluation when pointing out that the repetitive aspect of the dialogue "feels uncanny". They wrote that "whilst the dialogue does work at building a sense of intrigue, it feels uncanny and loops can get stuck and loop over each other".

## Conclusion

Through this research I have identified that there are some methods worth exploring when considering how a digital uncanny experience can be manufactured using certain design elements. For example, juxtaposition is a useful tool for harnessing the aspect of the uncanny which concerns something behaving outside of its predetermined expectations. It was noted that because the uncanny video game was lit in daytime lighting, it subverted the original expectations of a mild horror game established by the call for participants. Using a whitewashed colour palette could indicate the underlying decay and degradation in a subtle way. Repetitive images and icons are a good way to reinforce helplessness in a player, as are claustrophobic areas densely populated with assets that may also adapt the lighting such as woodlands. We know that music invokes emotion, and a soundtrack is a vital element to creating the desired atmosphere in an environment. The addition of an apprehensive aural cue, such as the phone ring in *Ringu*, and the birdsong in the uncanny video game, aids in drawing the uncanny out through sound.

More so, it is important to recognise the unintended, accidental elements of uncanny design which have manifested here. Particularly in the design and development of the NPCs, if we are to consider Mori's uncanny valley in the creation of the NPCs it could aid in the formulation of an intentionally uncanny game.

However, it is important to remember the individualism present in the experience of the uncanny. P1 for example engaged in an emotional response linked with a childhood experience in an area of the map which went marginally unnoticed by the other three participants. P2 noted experiencing the uncanny through lighting, dialogue looping, and NPC appearance. P3 commented on how the lighting, patterns, housing, and soundtrack had emotional impact, mostly responding in panic, urgency, with a false sense of security, and with a bleak sense of outcome. P4 was an interesting one, only engaging in horror games more often watching others play from a spectators' point of view rather than a player perspective. Their answers reflected this intuition for links between design and fear, but also commented on the design throughout. Interestingly, P4 was the only one to notice a design element, which I added to determine at what point do small, significant design choices become recognised. Through the woodland path, there were small bone hands. I adjusted the sizing to indicate children's hands. They remarked that they "really like the small hands that stick out from the ground, it needs the player to pause and actually look at them and get unsettled by it." Thus, reaffirming the theory that small, significant details for plot sometimes go amiss, but also opening the potential for thought. Perhaps, those more affixed in the realm of spectator are more susceptible to noticing the small details in design.

By understanding that the uncanny is such a transient phenomenon with no affixed nature due to the personal nature in what individuals see as uncanny, it is important to recognise the limitations of

the game evaluation. Although the four participants had a range of emotional, sensorial, and intellectual and cognitive responses, it is worth noting that it was a small, intimate study which would have benefited from a larger audience. However, as the recruitment process was conducted during the COVID-19 pandemic, there was an impact on the amount of people available to take part in the evaluation. Given more time and easier circumstances, it would also be interesting to see how this evaluation would fare with a larger, more versatile group of participants. For example, would consumers of comedy, drama, or action/adventure recognise the same factors within the design, or would they differ in some way?

To conclude, my research and methodology has allowed me to further understand how design elements such as colour, lighting, sound, and visual stimuli, could engage in this primal reception of the uncanny. How the uncanny is not necessarily born from a fear of definable stimuli such as dolls, mirrors, intent of harm, etc. I have discovered that the uncanny resides more in this realm of fear of the unknown, of a primal instinctual reliance on sensorial recognition and processing. When safety ensuring senses are manipulated by a warping of perception, the uncanny is given room to breathe and fester. Through layers of perception, we see the uncanny as the lifting of the metaphorical veil. Each layer of misinformation placed thinly atop the other to create a matrix of lies which conceals the hidden truth, waiting to rise to the surface. There are ways to sprinkle elements of the uncanny into digital design, and that in itself aids towards the creation of a digital uncanny experience. Although, we must not forget the original thought that the uncanny is a unique, individual perception which is transient and undefinable by nature. That is what makes it such an interesting phenomenon to discuss and create.

## Appendices

### Appendix 1 – Questionnaire provided to participants for playthrough data collection

Thank you for taking your time to participate in this study and for your completion of this questionnaire.

Let's begin with a little bit about you:

Q: How do you identify yourself? Please enter in the space below:

Q: How often do you play video games?

- Daily
- 1-3 times a week
- 3-6 times a week
- Once or twice a month
- A couple of times a year
- I don't

Q: What is your preferred genre of video game?

- Action
- Strategy
- Simulator
- Role-playing game
- Horror
- Other (please specify):

Q: Are horror video games something which you would choose to engage with?

- Not at all
- Occasionally
- Whenever I am able

Aesthetics (lighting, visual stimuli, and colour palette)

Q: Can you identify if the lighting within the game had any emotional impact on you?

- None at all
- A little
- A lot
- I don't know

Could you elaborate on your answer with a sentence or two to describe (if any) emotions you experienced from the lighting whilst playing the game?

Q: Did you find any of the following visual stimuli emotionally striking in any way? (I.E, disturbing, uncomfortable, intriguing, indistinct).

- Images of blood and gore
- Repetition of imagery or patterns
- The surrounding woodlands
- The architecture
- The colours and textures of the environment
- Other (please specify)

Q: I'd like you to now expand on your previous answer, what was it (if anything) that you felt or thought when you encountered this imagery? Could you explain why it made you feel this way?

(Feel free to give brief, bullet points or longer descriptions. A simple 'I don't know!' would also be welcome.

Q. Please comment further on any visual elements of the design that had an emotional impact on you. Could you describe at what point in the game this happened, how you felt and why you think you felt that way?

Now, I'd like you to consider the sound within the video game.

Each area has its own unique soundtrack with the intention of enhancing your emotional response and how you personally experience the playthrough.

Q: Can you identify any emotional response to this soundtrack?

Can you define why?.

Q: Lastly, did the dialogue cause you to feel any particular emotions?

- Yes
- No
- I'm not sure

Could you please elaborate on this further? What emotions (if any) did you feel? Could you give me some examples? Lastly, do you know why you felt this way?

Lastly, we are now going to look at the non-playable character (NPC) interaction.

Q: Did any of the interactions you experienced with an NPC in the video game cause you to feel any emotional response?

- Yes
- No
- I'm not sure

Could you please elaborate on your answer here? I.E, how did this make you feel? Can you define why?

Q: Think about the way the characters looked. I have aimed for a more realistic approach to character design in this video game instead of a more cartoonistic or anime approach.

Was there anything that struck you about the way the characters looked?

Think about their faces, their clothing, their skin textures (soft, rough, oily, smooth), their bodies and their movement.

- Yes
- No
- I'm not sure

Please elaborate on your answer here, do you know why you felt this way? Did you have an emotional response? I,E intrigue, repulsion.

Further comments regarding design elements of the video game and emotional responses experienced from the playthrough:

I will now invite you all to join me for a discussion and group interview.

You will be given a further explanation as to the intention behind this project and will be then invited to answer a few more questions in a verbal discussion.

## **Appendix 2 – Approved Ethics Application**



### **Department of Theatre, Film, Television and Interactive Media Ethics Committee**

### **RESEARCH ETHICS CHECKLIST**

This checklist is to be used **ONLY** for research by TFTI staff and research students where the work can be considered low-risk from an ethical perspective.

Completed Research Ethics Checklists should be submitted to the TFTI Ethics Committee for review, by email to [TFTI HYPERLINK "mailto:tftv-ethics@york.ac.uk"-ethics@york.ac.uk](mailto:tftv-ethics@york.ac.uk) at least TWO WEEKS before the commencement of the research work for which ethics clearance is being sought, unless an alternative deadline has been agreed, in advance, in writing with the TFTI Ethics Chair.

**All research student applications MUST be first discussed, reviewed and approved by their supervisor prior to their submission. Student applications should also copy their supervisor on the email submission.**

**Before completing this form, please consult the TFTI Research Ethics Guidelines, available on the TFTI Ethics VLE site and Research Ethics web pages.**



## SECTION 1: APPLICANT AND PROJECT DETAILS

<b>Box 1A: Applicant Details</b>	
ALL applicants must complete this box.	
Applicant Name	Tania Dales
E-mail address	tgd507@york.ac.uk
TFTI Staff or TFTI Student	TFTI Student

<b>Box 1B: Programme Details</b>	
STUDENT applicants must complete this box.	
Degree Programme of Study	MSc by research in Interactive Media
Supervisor name(s) and Email address(es)	Anna Bramwell-Dicks anna.bramwell-dicks@york.ac.uk  Nick Jones n.jones@york.ac.uk

<b>Box 1C: Research Details</b>	
ALL applicants must complete this box.	
Research Project Title	Exploring the psychological and emotional effect of video game design
Project Start Date	14.10.2021
Project Duration	1 Day
Collaborator details (if applicable, names, email addresses and institutions)	N/A
Funding source (if applicable)	N/A

<b>Box 1D: Other Ethics Reviews</b>	<b>YES</b>	<b>NO</b>
ALL applicants must complete this box.		
Has this project been submitted to any other ethics or compliance procedures?		X
If YES, please provide details		

<b>Box 1E: Conflicts of Interest</b>	<b>YES</b>	<b>NO</b>
STAFF applicants must complete this box.		
1 Are any ethical concerns / conflicts of interest likely to arise as a consequence of funding source (with respect to your own work or that of other individuals/departments within in the University e.g. perceived or actual with respect to direct payments, research funding, indirect sponsorship, board or organisational memberships, past associations, future potential benefits etc...)		
2 Does the Principal Investigator or any other key investigators or collaborators have any direct personal involvement in the organisation sponsoring or funding the research that may give rise to a possible conflict of interest?		
IF YES to either question please describe these possible ethical concerns or conflicts of interest.		

**Please complete Section 2: Research Summary**

## **SECTION 2: RESEARCH SUMMARY**

<b>Box 2A: Research Outline</b>	
ALL applicants must complete this box.	
1	<b>Aims and objectives of the research</b> Please provide the aims and objectives of the research, including the questions or hypotheses that will be examined.

**This research shall be exploring manifestations of unheimlich within video games, and the design choices therein. The thesis aims to interpret how unheimlich, a psychological phenomena which presents itself as the familiar warped in some way, becomes unfamiliar, and how this can be recognised in video games and therefore used as a design tool when creating a video game which is intentionally uncanny (unheimlich). Unheimlich is a feeling which plays on a deep rooted, primal feeling of fear by subverting the normal and creating discomfort in subtle, often personal, circumstances. Freud's interpretation of unheimlich covers children's toys, mental illness, repetition, and other instances.**

**My interpretation of unheimlich explores the impact of something acting out of place, a side step from the norm, which is why I am looking at broken societies and individuals working outside of the societal norm mould. I have also been looking into how juxtaposition and other elements could be considered as unheimlich in certain circumstances.**

**With the aid of a practical component in the form of a digital artifact moulded by these instances of unheimlich, the thesis will pose the question of whether a framework for creating the digital uncanny can be achieved or not.**

## **2 Methods of data collection and types of data**

Please outline how the data will be collected from or about human participants (e.g. face to face audio recorded interviews, anonymous online surveys hosted by Google Forms, telephone surveys etc.) Please give details of all proposed research activities and specify exactly what types of data will be collected for each activity (e.g. paper based notes, photographs, audio recordings etc.).

**Participants shall be invited to engage with the digital artifact before being asked to fill in a questionnaire. The video game will be transported from my PC via a harddrive which can then be transferred onto computers in one of the TFTI rooms. That way, all of the participants can play the game simultaneously to save on time.**

**Within the digital artifact there are instances of superficial blood and gore, the game itself is not too disturbing but those who suffer from fear of blood will be dissuaded from being involved.**

**The initial email requesting participants will have a disclaimer which explains that there is imagery which might be unsettling to individuals who are not comfortable with blood.**

**The participants will be told that they are able to stop playing if they feel uncomfortable and do not wish to continue, and they will also be told they can leave at any point without giving explanation.**

**However, the initial email requesting participants will make it clear that this is a game built around mechanisms of horror games, but the content isn't particularly upsetting or distressing.**

**The game will be downloaded onto an external hard drive and possibly google drive (should it not be too big a file), and then brought to the TFTI computer**

	<p>labs to be played by participants on the department's computers. I will be booking these after sending out the Ethics applications.</p> <p>The questionnaire will be available via google forms and the participants will be asked to fill the questionnaire out directly after playing the game. They will be able to access the questions beforehand and make notes to ensure they are able to give the best quality of feedback on experience as possible.</p> <p>The questions aim to give an insight into the participants' emotional responses to certain design elements of the video game, such as the sound and visual aesthetics (lighting, colours, stimuli, etc). The questions will aim to be broad and unbiased, with the hope to gain genuine, undirected response.</p> <p>Following the questionnaire, the participants will be invited to join a group interview in which unheimlich and the research intentions shall be explained. The interview will be used as a way to further understanding of emotional responses that the participants experienced during their playthrough, and to prompt discussion.</p> <p>The group discussion will be voice recorded on my laptop for future reference, the participants will be notified of this in the initial email requesting participants and in the information sheet, and the consent form. This will be stored on my university Google drive account where it will be secure and password protected.</p> <p>I will, of course, follow the department and covid protocols for working within the lab and with in-person study participants.</p>
3	<p><b>Research Outside of the UK</b></p> <p>Will you be conducting research outside of the UK? If so, specify where. Have you checked whether local ethical approval is required? Are there any different civil, legal, financial or cultural conditions that you need to be aware of? If so, please provide details of how you will ensure compliance with these conditions and/or regulations.</p> <p>See the University's guidance on conducting research outside the UK for further details: <a href="https://www.york.ac.uk/staff/research/governance/research-policies/guidanceoutsideuk/">https://www.york.ac.uk/staff/research/governance/research-policies/guidanceoutsideuk/</a></p>
	No

Please complete Section 3: Participants

**SECTION 3: PARTICIPANTS**

### Box 3A: Participant Summary

ALL applicants must complete this box.

#### 1 Recruitment of Participants

How many participants will take part in the research? How will they be identified and invited to take part in the study? Please give details for all activities described in Box 2A, Question 2.

It is sufficient to provide estimated numbers. But, please provide details for each of the research activities described in the previous box.

**10 participants shall be invited to engage with this research, preferably and ideally they shall have a difference in preference for video game genres.**

**An invite shall be sent out via email to first, and possibly second year, TFTI students with an interest in video games. The email will state the need for ten participants, and will ask for a brief background of the participants video game consumption. This will be gained through three simple questions: do the potential participants enjoy video games, what genre of game do they prefer, and how often do they play video games? This will be used in order to choose ten participants with a diverse interest in video games and in certain genres to enable a broad spectrum for the research. I will state this process in the email, and explain that I will be selecting only ten.**

**All 10 participants will be asked to engage with the digital artifact, answer the questionnaire and attend the group interview.**

**The entire data collection process will take at least 3 hours to account for breaks and adequate discussion.**

#### 2 Anonymity

Will the data you collect from participants be treated anonymously or non-anonymously in any outputs (e.g. reports, assessments, research papers etc.)?

If you intend to treat your data anonymously in the outputs, how will you ensure that anonymity is maintained? If you intend to treat the data non-anonymously, please explain and justify why a non-anonymous approach is appropriate in this work?

Note that a “**privacy by design**” approach is required for **research activities**, whereby data is always treated anonymously in outputs unless there is a good reason to identify the participants.

**The data will remain anonymous throughout the thesis, each participant will be referred to as Participant 1, Participant 2, etc.**

**The data collected will be used to help answer the thesis question, which is to explore whether the design elements in the video game have worked as intended: to create an uncanny digital environment.**

3	<p><b>Payments, reimbursements and incentives</b></p> <p>If research participants are to receive any payments, reimbursement of expenses, or any other incentives or benefits for taking part in your research, please give details, indicating what and how much they will receive and the basis on which this was decided. Please also explain how you will ensure that you are complying with financial regulations. The University’s policy on payment to participants in research projects is in line with HMRC guidelines:</p> <p><a href="https://www.york.ac.uk/admin/hr/policies/appointments-contracts-leavers/employment-status-interns-work-experience-etc/guidance/">https://www.york.ac.uk/admin/hr/policies/appointments-contracts-leavers/employment-status-interns-work-experience-etc/guidance/</a>.</p> <p>If you wish to compensate participants for time spent on a project, commensurate with equivalent earnings for the participant, you have to enter into a ‘casual employment’ relationship, adding participants to the University payroll. Right To Work checks are required and there are also tax implications. Otherwise, participants can be paid reasonable expenses (travel and subsistence) plus a token acknowledgement of £10 for up to a half day’s participation, £25 for a whole day.</p> <p><b>The participants will be offered a £10 gift voucher as an incentive for participating in the three hour study.</b></p>						
4	<p><b>Obtaining Consent</b></p> <p>Please explain how voluntary informed consent to participate will be elicited from participants. If different groups are involved in the study (e.g. parents, children, staff), please describe the sequence of consent. Please give details for all activities described in Box 2A, Question 2.</p> <p><b>The participants will be first or second year Interactive Media Bachelor’s students from relevant modules such as ‘Media Production for Interactive Environments’ and ‘Developing Interactive Media’, from York University. If necessary, I may also contact the Fragsoc University of York video game society. All participants will be provided with an Information Sheet explaining the research and their involvement in the data collection, should they choose to consent, and Consent Forms. The Consent Form will detail how they can withdraw consent and participation should they choose too.</b></p>						
5	<table border="1"> <thead> <tr> <th data-bbox="256 1581 1193 1666"><b>Information Sheets</b></th> <th data-bbox="1193 1581 1302 1666"><b>YES</b></th> <th data-bbox="1302 1581 1388 1666"><b>NO</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="256 1666 1193 1827">Please confirm that you will provide <i>all participants</i> with a Participant Project Information Sheet that is based on the template provided on the TFTI Research Ethics web pages.</td> <td data-bbox="1193 1666 1302 1827" style="text-align: center;">X</td> <td data-bbox="1302 1666 1388 1827"></td> </tr> </tbody> </table>	<b>Information Sheets</b>	<b>YES</b>	<b>NO</b>	Please confirm that you will provide <i>all participants</i> with a Participant Project Information Sheet that is based on the template provided on the TFTI Research Ethics web pages.	X	
<b>Information Sheets</b>	<b>YES</b>	<b>NO</b>					
Please confirm that you will provide <i>all participants</i> with a Participant Project Information Sheet that is based on the template provided on the TFTI Research Ethics web pages.	X						
6	<table border="1"> <thead> <tr> <th data-bbox="256 1827 1193 1908"><b>Consent Forms</b></th> <th data-bbox="1193 1827 1302 1908"><b>YES</b></th> <th data-bbox="1302 1827 1388 1908"><b>NO</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="256 1827 1193 1908"></td> <td data-bbox="1193 1827 1302 1908"></td> <td data-bbox="1302 1827 1388 1908"></td> </tr> </tbody> </table>	<b>Consent Forms</b>	<b>YES</b>	<b>NO</b>			
<b>Consent Forms</b>	<b>YES</b>	<b>NO</b>					

	<p>Please confirm that you will take written Informed Consent from <i>all participants</i> using a form that is based on the template provided on the TFTI Research Ethics web pages.</p> <p>Note that it is expected that explicit written Informed Consent is taken from all participants, unless there is a good reason to use verbal consent.</p>	X	
	<p>If NO, please explain in what situations and contexts you will take verbal consent and how you will manage and record that verbal consent has been taken.</p>		
7	<b>Feedback</b>	<b>YES</b>	<b>NO</b>
	<p>Will you be providing the participants with any feedback on their involvement? E.g. providing them with access to research papers?</p> <p>Note that it is generally expected that participants will have the option to receive some form of feedback on the work.</p>	X	
	<p>If YES, please explain how you will provide the relevant parties with feedback and when, e.g. by giving them access to the completed report by emailing them a pdf version of accepted conference papers.</p> <p>If NO, please explain why not.</p>		
	<p><b>The participants will be invited to read the completed thesis, this will be sent via email to those who submit their email and interest in the consent form.</b></p>		
8	<b>Dissemination and Distribution</b>	<b>YES</b>	<b>NO</b>
	<p>Do you intend to disseminate or distribute your finished work anywhere?</p>	X	
	<p>If YES, please explain what you intend to do with the finished work? E.g. put on YouTube, submit to conferences etc.</p>		
	<p><b>I hope to submit my thesis to journals for publication, and present my research and work at conferences.</b></p>		

Please complete Section 4: Research Ethics Concerns

**SECTION 4: RESEARCH ETHICS CONCERNS**

<b>Box 4A: Checklist of Research Ethics Questions</b>	<b>YES</b>	<b>NO</b>
---	------------	-----------

ALL applicants must complete this box			
1	<p>Will the project involve conducting work that would typically require NHS Ethics approval?</p> <p>That is, will you be working with any of the following as participants, if recruited specifically due to their involvement with the NHS:</p> <ul style="list-style-type: none"> <li>• Patients and Users of the NHS,</li> <li>• Relatives or carers of patients and users of the NHS,</li> <li>• NHS staff?</li> </ul> <p>OR will you be using or accessing NHS premises or facilities as part of the work?</p>		X
2	<p>Will the project involve conducting work that would typically require Her Majesty's Prison &amp; Probation Service Ethics approval?</p> <p>That is, will you be conducting research with staff and/or offenders in prison establishments, National Probation Service (NPS)/Community Rehabilitation Companies (CRC) regions or within Her Majesty's Prison and Probation Service (HMPPS) Headquarters?</p> <p>OR will you be conducting research on HMPPS premises?</p>		X
3	<p>Will you be working with vulnerable participants (e.g. those under 18, people with learning disabilities, people with mental impairment due to health or lifestyle, people who are terminally ill or recently bereaved etc.)?</p> <p>Note that if you are unsure whether someone you would like to work with could be considered vulnerable under the circumstances, you are required to discuss your concerns with your supervisor and/or Ethics Chair. It is generally expected that any student working with vulnerable groups would submit a Full Research Ethics Clearance form.</p>		X
4	Will you be discussing sensitive or potentially upsetting or distressing topics with participants?		X
5	Is it reasonably foreseeable that the work could involve causing physical or emotional distress to participants or researchers?		X
6	Is it reasonably foreseeable that the participants could disclose or discuss participation in illegal activities (e.g. drug use)?		X
7	Is it reasonably foreseeable that the participants could disclose confidential or sensitive information (e.g. financial data, sensitive organisational data)?		X



8	Will you be deliberately misleading the participants in any way?		X
9	Will you be filming or making recordings of people without their knowledge and consent (e.g. covert filming of people in non-public places)?		X
10	Will you be researching or discussing issues relating to terrorism or political extremism as part of your work?		X
11	Will you be collecting online data that has been generated by human participants (e.g. social media data) from closed, restricted forums (i.e. from closed communities or those that require approved membership to view, e.g. restricted Facebook groups)?		X
12	Will you be identifying anyone from online data that has been generated by human participants (e.g. social media data) from either open or closed forums (i.e. by including information that could make the individual identifiable, such as direct quotes or usernames)?		X
13	Could the work involve potentially damaging property and/or the natural environment?		X
14	Will the work involve animals?		X
15	Is it reasonably foreseeable that the work could result in any anticipated university/institutional risk (e.g. adverse publicity or financial loss)?		X

**If you have answered “YES” to ANY of the questions in Box 4A: Checklist of Ethical Research Ethics Questions:**

This Research Ethics Checklist may be insufficient to accommodate the ethical risks of your proposed work.

Some lower-risk ethical issues can be accommodated without further scrutiny by the TFTI Ethics Committee provided that you agree to follow a process that is considered appropriate. These situations and processes are described on the TFTI Ethics VLE site.

IF there is a suitable procedure to manage this ethics issue, please complete Box 4B to provide further details of how you intend to manage the ethical issues associated with your proposed work.

**Box 4B: Further Details**

Complete this box if you answered “Yes” to any question in Box 4A AND there is an identified procedure to manage the ethical risks in this situation.

Provide details of the nature of the ethical risks that you identified by answering YES to questions in Box 4A and describe the process that you will follow to minimise the risks.

Alternatively, the associated risks of your proposed work may be sufficiently low risk that an appropriate approach can be agreed with the TFTI Ethics chair without requiring submission of the TFTI Research Ethics Clearance form. Your supervisor/module convenor may contact the TFTI Ethics on your behalf to identify an agreed process on a case-by-case basis. If your supervisor has discussed your proposed work with the TFTI Ethics Chair via email, please complete Box 4C: Case-By-Case Agreed Process.

<b>Box 4C: Case-By-Case Agreed Process</b>		<b>YES</b>	<b>NO</b>
<p>Applicants must complete this box IF they have answered “YES” to any questions in Box 4A AND there is no identified procedure to manage the ethical risks of the proposed work.</p> <p>Note, that most applicants will need to submit a TFTI Research Ethics Clearance form and this case-by-case process approach is ONLY suitable for work that can be considered low risk.</p>			
1	Have you or your project supervisor discussed the proposed work and associated ethical risks with the TFTI Ethics Chair via email?		x
2	Were you or your project supervisor able to agree a process to manage the low risks associated with your proposed work?		x
<p>IF YES to BOTH questions please provide further details of the anticipated risks of the proposed work and the process that was agreed with the TFTI Ethics chair. Please include dates of the email correspondence AND the name and email address of people involved.</p>			

If the associated risks of your proposed work cannot be accommodated through an identified procedure or through a case-by-case agreed process, then you will need to submit an application to the TFTI Ethics Committee for review using the Research Ethics Clearance Form.

**Please complete Section 5: Data Protection**

**SECTION 5: DATA PROTECTION**

<b>Box 5A: Checklist of Data Protection Questions</b>	<b>YES</b>	<b>NO</b>
ALL applicants must complete this box		

1	<p>Will you guarantee that you will inform all people whose personal and/or special category data that you are using:</p> <ul style="list-style-type: none"> <li>• What data you will be collecting and why;</li> <li>• How you will be storing the data;</li> <li>• The legal basis under which you are storing the data;</li> <li>• When/if/how the data will be destroyed?</li> </ul> <p>Please note that using a GDPR Compliant Project Information Sheet will ensure you meet these requirements.</p>	X	
2	Will you guarantee that <b>IF</b> you use a portable device to collect electronic data you will transfer that data to your University Google Drive account or University Filestore as soon as possible after the interview <b>AND</b> delete it from your personal device?	X	
3	Will you guarantee that the data will <b>ONLY</b> be accessible to the project team <b>AND</b> that <b>IF</b> the project team extends beyond the University of York that you have consulted the University's IP and Legal team to ensure appropriate data protection safeguards are in place?	X	
4	Will you guarantee that you will <b>ONLY</b> use Google Forms OR Qualtrics to host online surveys that collect personal and/or special category data?	X	
5	Will you guarantee that you are collecting the <b>MINIMUM</b> amount of data necessary for the intended project?	X	
6	Will you guarantee that <b>IF</b> you are storing or accessing data from <b>OUTSIDE</b> the European Economic Area (EEA) you will access the data through your University of York Google Account connected to the University of York Virtual Private Network (VPN)?	X	
7	Will you guarantee to destroy all physical <b>AND</b> electronic data <b>EITHER</b> after your module marks have been ratified by the Board of Examiners <b>OR</b> 10 years after last requested access?	X	
8	<b>IF</b> storing electronic data for 10 years after last requested access, will you guarantee to <b>EITHER</b> use a University Google Drive account <b>OR</b> an approved data repository service to store the data?	X	
9	Have you screened your project against the <a href="#">Data Protection Impact Assessment (DPIA) screening questions</a> <b>AND</b> if required conducted a DPIA and submitted a copy to the Data Protection Officer for review?	X	

**Box 5B: Further Details**

Complete this box if you answered “No” to any question in Box 5A.

Provide details of the nature of the data protection risks that you identified by answering NO to questions in Box 5A and describe the process that you will follow to minimise the risks. Please note that if you are not compliant with the agreed procedures above, this application will be referred to the University Data Protection Officer for advice.

**Please complete Section 6: Applicant Agreement****SECTION 6: APPLICANT AGREEMENT**

Please mark your answer to each question in Box 6A: Applicant Agreement with an “X” or a tick in the appropriate column. Please note that you **MUST NOT** begin contacting participants **UNITL** you have received a response from the Ethics committee.

**If you are a research student, please also have your supervisor also complete Box 6B: Supervisor Agreement and provide their signature overleaf.**

Once completed, submit the checklist for review by the TFTI Ethics committee by emailing the checklist to [TFTI HYPERLINK "mailto:tftv-ethics@york.ac.uk?subject=Non-Anonymous%20Interview%20Checklist"-ethics@york.ac.uk](mailto:tftv-ethics@york.ac.uk?subject=Non-Anonymous%20Interview%20Checklist) from the applicant’s University of York account. The Ethics Committee will accept a typed/digital signature from the applicant if the form is returned by email from the applicant’s University of York account, and similarly a typed/digital signature and responses to the supervisor questions if the supervisor is cc’d to that email.

<b>Box 6A: Applicant Agreement</b>		<b>YES</b>	<b>NO</b>
ALL applicants must complete this box.			
1	I will ensure that the research conducted for the above project will meet all the statements as expressed in this Research Ethics Checklist.	X	
2	I will ensure that all work related to the research will be guided by the University’s ethical rules and regulations.	X	
3	I understand that I must not progress with this project until I have received confirmation from the TFTI Ethics committee that Ethics approval through this Research Ethics Checklist is appropriate for this project.	X	

4	I have included example Project Information Sheets and Participant Informed Consent Forms, as part of this Ethics application, if appropriate.	X	
5	I understand that I must adhere to the TFTI requirements for storing and using personal and special category data in compliance with the General Data Protection Regulation.  Note that GDPR compliance guidance can be found on the TFTI Ethics VLE site.	X	
6	I agree to ensure that all payments made to personnel in relation to this project will comply with financial regulations.	X	
7	I agree to report any changes to the above as soon as is feasible to the Chair of the TFTI Ethics Committee.	X	
Applicant Name		Tania Dales	
Signed		Tania Dales (electronically signed)	
Date		16/09/2021	

<b>Box 6B: Supervisor Agreement</b>		<b>YES</b>	<b>NO</b>
<b>STUDENT</b> applicants must have their supervisor complete this box.			
1	I have reviewed this checklist in discussion with the student.	X	
2	I believe the Research Ethics Checklist is appropriate for this work and that no further Ethics approval is required.	X	
3	<b>IF</b> you have selected “No” in response to statement 2:  I confirm that the student will submit either the Research Ethics Clearance Form for further ethical approval.		
Supervisor Name		Nick Jones	

Signed	<i>Nick Jones (signed electronically)</i>
Date	27th Sept 2021

### Appendix 3 – Participant Information Sheet

## Department of Theatre, Film, Television and Interactive Media Ethics Committee

### Participant Information Sheet –Anonymous Research

#### Project background

The University of York would like to invite you to take part in the following project:

‘Exploring the psychological and emotional effect of video game design’.

Before agreeing to take part, please read this information sheet carefully and let us know if anything is unclear or you would like further information.

#### What is the purpose of the project?

This project is being performed by Tania Dales ([tgd507@york.ac.uk](mailto:tgd507@york.ac.uk)) who is a masters by research student in Interactive Media. This research is being supervised by Dr Anna Bramwell-Dicks ([anna.bramwell-dicks@york.ac.uk](mailto:anna.bramwell-dicks@york.ac.uk)) and Dr Nick Jones ([n.jones@york.ac.uk](mailto:n.jones@york.ac.uk)) and shall be submitted for the award of MSc by research in Interactive Media.

The work that is being performed is being conducted according to restrictions that have been subject to approval by the TFTI Ethics committee. The Chair of the TFTI Ethics committee can be contacted on [TFTI](#).

For this research project, I am interested in discovering how design elements, such as atmospheric sound, unsettling imagery and juxtaposition, could impact a player's emotional response. Your participation in this project will involve playing a short PC video game which I have created, inspired by video games of the horror genre, and then answering a short questionnaire based on your own emotional response, your experience as a player (whether you enjoyed it and why), and your thoughts on the design elements of the game. Following this, you will be asked to join myself and other participants where I shall explain in further detail what it is I have intended to achieve and point out certain design choices and why they were included. You will then be invited to join a group discussion which will be voice recorded, during which I will ask three further, more specific, questions relevant to my thesis question. Through this process, I hope to gain an understanding on how video game design invokes psychological and emotional response in a player. The entire process should take roughly three hours which will include time for comfort breaks. Within

the game there is some unsettling imagery, I.E blood splatters, child abduction, threat of harm, subtext of sacrifice and physical harm.

Please note that to comply with the approved Ethics requirements of this work, we do not intend to discuss sensitive topics with you that could be potentially upsetting or distressing. If you have any concerns about the topics that may be covered in the research study, please raise these concerns with the researcher.

Your participation in this project is voluntary. If you wish, I will provide you with access to your individual compiled notes and the graded thesis paper once the award has been achieved. If you would like to receive access to these, you can indicate as such on the consent form.

## **Why have I been invited to take part?**

You have been invited to take part because I am aiming to receive feedback from a diverse group of video game enthusiasts who enjoy a wide array of genres.

## **Do I have to take part?**

No, participation is optional. If you do decide to take part, you will be given a copy of this information sheet for your records and will be asked to complete a participant consent form. If you change your mind at any point during the research activity, you will be able to withdraw your participation without having to provide a reason. To withdraw your participation you need to contact myself via email ([tg507@york.ac.uk](mailto:tg507@york.ac.uk)) to notify of your wish to withdraw. All data compiled will, of course, be deleted.

## **On what basis will you process my data?**

Under the General Data Protection Regulation (GDPR), the University has to identify a legal basis for processing personal data and, where appropriate, an additional condition for processing special category data.

For further information and definitions of personal and special category data, please go to:

- <https://ico.org.uk/for-organisations/guide-to-the-general-data-protection-regulation-gdpr/key-definitions/>
- <https://ico.org.uk/for-organisations/guide-to-the-general-data-protection-regulation-gdpr/lawful-basis-for-processing/special-category-data/>

Special category data is personal data which the GDPR says is more sensitive, and so needs more protection. In this study, we will not be collecting any special category data.

Research activities will only be undertaken where ethical approval has been obtained, where there is a clear public interest and where appropriate safeguards have been put in place to protect data.

In line with ethical expectations and in order to comply with common law duty of confidentiality, we will seek your consent to participate where appropriate. This

consent will not, however, be our legal basis for processing your data under the GDPR.

### **How will you use my data?**

Data will be processed for the purposes outlined in this notice.

### **Will you share my data with 3<sup>rd</sup> parties?**

No. Data will be accessible to the project team and personnel associated with the Department of Theatre, Film and Television at the University of York only.

Anonymised data may be reused by the research team or other third parties for secondary research purposes.

### **How will you keep my data secure?**

The University will put in place appropriate technical and organisational measures to protect your personal data and/or special category data. For the purposes of this project I will store data using secure University services provided by Google and the University Filestore.

Information will be treated confidentiality and shared on a need-to-know basis only. The University is committed to the principle of data protection by design and default and will collect the minimum amount of data necessary for the project.

### **Will you transfer my data internationally?**

Possibly. The University's cloud storage solution is provided by Google which means that data can be located at any of Google's globally spread data centres. The University has data protection complaint arrangements in place with this provider. For further information see, <https://www.york.ac.uk/it-services/google/policy/privacy/>.

### **Will I be identified in any outputs?**

No. Your participation in this research activity will be treated anonymously and you will not be identified in any outputs.

### **How long will you keep my data?**

Data will be retained in line with legal requirements or where there is a business need. Retention timeframes will be determined in line with the University's Records Retention Schedule.

### **What rights do I have in relation to my data?**

Under the GDPR, you have a general right of access to your data, a right to rectification, erasure, restriction, objection or portability. You also have a right to withdrawal. Please note, not all rights apply where data is processed purely for research purposes. For further information see, <https://www.york.ac.uk/records-management/generaldataprotectionregulation/individualsrights/>.



## Questions or concerns

If you have any questions about this participant information sheet or concerns about how your data is being processed, please contact the TFTI Ethics Chair ([TFTI HYPERLINK "mailto:tftv-ethics@york.ac.uk"-ethics@york.ac.uk](mailto:tftv-ethics@york.ac.uk)) in the first instance. If you are still dissatisfied, please contact the University's Acting Data Protection Officer at [dataprotection@york.ac.uk](mailto:dataprotection@york.ac.uk).

If you have any questions about the project itself, please contact the producer Tania Dales ([tgd507@york.ac.uk](mailto:tgd507@york.ac.uk)) or project supervisor Dr Anna Bramwell-Dicks ([anna.bramwell-dicks@york.ac.uk](mailto:anna.bramwell-dicks@york.ac.uk)) or Dr Nick Jones ([n.jones@york.ac.uk](mailto:n.jones@york.ac.uk)).

## Right to complain

If you are unhappy with the way in which the University has handled your personal data, you have a right to complain to the Information Commissioner's Office. For information on reporting a concern to the Information Commissioner's Office, see [www.ico.org.uk/concerns](http://www.ico.org.uk/concerns).

### Appendix 4 – Participant Consent Form

#### Department of Theatre, Film, Television and Interactive Media Ethics Committee

#### Participant Consent Form

Thank you for your interest in this project. This research activity will be used to understand whether certain design choices in a video game could prompt specific emotional responses in an individual. The data received through this research activity will be used in my thesis being written for a MSc by research in Interactive Media.

**Please read the following statements carefully and tick the appropriate box:**

	YES	NO
I have read the information sheet about this project		
I agree to take part in this project		
I consent to playing a Gothic, psychological walking simulator game in this research		
I consent to a voice recording of a group interview which will be concerning the video game		
I understand my right to withdraw and/or have my data destroyed from this project at any time		

I understand that my participation in this project will be treated anonymously		
I am over the age of 18		

**Participant Name:**

\_\_\_\_\_

**Participant Signature:**

\_\_\_\_\_

**Date:**

\_\_\_/\_\_\_/\_\_\_

**Researcher Name:**

\_\_\_\_\_

**Researcher Signature:**

\_\_\_\_\_

**Date:**

\_\_\_/\_\_\_/\_\_\_

If you wish to be informed about the outcomes from this project, please provide your email address:

\_\_\_\_\_

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