

Middle Earth: Shadow of War

Building a believable Gameworld through Recollection, Consistency and Familiarity.

Ben Waring

University of Lincoln
Brayford Way, Brayford Pool,
Lincoln, LN6 7TS,
01522 882000
15562981@students.lincoln.ac.uk

ABSTRACT

This report will consider the immersion in Shadow of War through recollection, consistency and familiarity. When considering immersion, this report considers the visuals, personality and the mechanics, dynamics and aesthetics of Shadow of War. It considers pre-existing media like the movies, books and compares the visuals and personalities to those people have already conceived. Does playing the game and interacting with Uruks have a different feeling and meaning if that same player has experience Lord of the Rings. The results from this case study give a better look on if the game is more immersive or not. In conclusion, the game is very immersive and players can often lose themselves in the open world alone. However, players who have no experience with Lord of the Rings or the world in general feel pushed away and feel no immersion of connection to the game.

Keywords

Gaming, Immersion, Recollection, Familiarity.

INTRODUCTION

One of the objectively greatest pieces of literature is the Lord of the Rings series, created by J.R.R. Tolkien. The world of Middle Earth has been around for generations and has seen a variety of adaptations. Most recently the series has been adapted into video games. The latest in the franchise is Shadow of War, the sequel to the widely successful game Shadow of Mordor.

Over the course of the first game players experience a variety of different mechanics including the famous Nemesis System, where most of the replayability of the game comes from. The Nemesis System is a collective of orcs referred to as; Nemeses. These are randomly named enemies and each one is generated uniquely with each playthrough. Each Nemesis has their own personality, visuals, traits and power levels. These enemies also rise and fall through the social structure of the as the players make certain decisions and will react differently to the players incursions across Mordor. These reactions are shown in fights and off hand comments made by the enemies.

The Nemesis System take the narrative decision of the main character (Talion) not being able to truly die into account. Due to this, death is not the end in the Nemesis system or the rest of the game. Not for Talion and not always for the Nemeses he kills either. Whenever you kill one of these nemeses there is a chance they will survive the final blow not even this can stop the orcs from hunting Talion. Any of the nemesis that have been killed by the player can reappear at any time in the world, sporting new scars based on the previous encounter and they will often have a unique thing to say upon their return.

When considering all the world-building, done by the developers, with the narrative of the game and the nemesis system; this report will be considering pre-existing media to gauge the games immersion and if this creates a believable game world. When talking about the game world being believable; the report will also refer to visuals, personality and the MDA aspects of game design. All of this will be compared to the world Tolkien himself created with the original Lord of the Rings series.

Considering Tolkien's world has been around for nearly one hundred years, it is understandable that this franchise has a staggering number of fans. The world that these fans love is something that is portrayed in Shadow of War and therefore things that seem utterly implausible in the real world are easily believed because there is pre-existing material for them to refer and relate to when considering their immersion.

To fully be able to understand if the game world is believable, first the world's affordances need to be considered and contemplated. As well as this, the consistency between the first and second game must also be considered. Do themes continue throughout the series or is there staggering difference that takes away from the consistent world that has been created? As well as this is the world grounded within Tolkien's view of Middle Earth as players will draw on this world to compare the game to as a way of creating a more believable world in their minds and allowing them to be completely immersed.

Have you ever come across a door that can never be opened reasonably? Come across a waist high wall that you cannot climb over? Of course, you haven't. Then why in video game is it common to come across inaccessible areas? Normally this is a decision made by developers to keep a gamer on track and to make sure everything flows correctly. When looking at Shadow of War, are players able to do what they want within the constraints of the game or are there restrictions that have been implemented that make no sense and take away immersion.

ANALYSIS

Visuals



Figure 1: Shadow of War Nurnen Landscape.

Building a believable game-world begins in the visuals of the game. It is particularly important to have good visuals in an open world game. Shadow of War is an open world game with some very impressive visuals (figure 1). The report is not talking about the graphics as they aren't particularly important in building a believable game world. The reason behind this is because a player can have the same level of immersion in a low-poly game. So why in this report are visuals important? It is mainly because visuals are aesthetically pleasing and with the visual aesthetic comes important world building.

Not only does visuals being pleasing matter but the visuals also must make sense. What is meant by this is, buildings aren't randomly scattered around the world and there is an aura of sense to the placement of buildings. As well as the positioning of buildings, the positioning of enemies, objects and wildlife should all make sense. For example, a cave that the players have just discovered, and no-one has entered the cave for hundreds of years, shouldn't be full of enemies around the world. The same cave shouldn't house a few explosive barrels either, its contents should make sense. Through all this a world can become more believable and increase players immersion.

Wildlife is always important in an open world game. A forest with no animals in it, feels lazy and rushed from a game design stand point. Wildlife, is something that can often be overlooked in games. In Shadow of War, wildlife is very important in creating a believable depiction of Mordor. Mordor in the films is shown as a barren land, where rocks and sand are in abundance however, when you observe the lore behind Mordor that was written by Tolkien, you realise there are areas of Mordor, like Nurnen, which are green and house forests and a variety of wildlife. It is in these areas where the additional touches of birds and scurrying animals add to the immersion factor as these are things that would be seen in a woodland area in the real world. As well as these small niche touches, Shadow of War also has fully grown animals. Caragors, Graugs, Ghuls and Drakes are the main animals that players can interact with and see in this game.

These animals are each different and have their own use in the world. Caragors are large dog like animals that can be ridden and resemble creatures used by Uruks throughout the book and film series: Wargs. Adding a unique use for these animals give them a purpose as well as a just a use. Graugs are large creatures, bigger than trolls, known as the "Giants of Mordor" they are gigantic, armour plated, creatures. They are not vast in number like Caragors and Ghuls and their main purpose is to disrupt a players plan as they are a very large risk to players and can kill players in a few hits. Ghuls are small creatures, Ghuls are nocturnal pack scavengers although not very important overall to the game and not much of a threat to the player Ghuls are still important. Considering the traits that captains have Ghuls can be used to gain a tactical advantage in combat as they kill Uruks indiscriminately. Much like the Graugs in the game, Drakes are in Shadow of War. Drakes are mainly in the game due to their relationship with the Nazgul, which are also in the game, however, they are a nice addition to the game. It adds a new perspective to the game as you can gain the use of the sky to destroy your enemies in the game. Drakes are indiscriminate with their fire even when you own the Drake it's fire can, obviously, kill the player.



Figure 2: Azog(Left) and an Uruk (right) from Shadow of War, showing their similarities



Figure 3: Azog (Top Left), Bolg (Top Right), Lurtz (Bottom Left) and Gothmog (Bottom Right).

The added realism to the creatures of the world, them being able to hurt you and you being able to hurt them, allows for a more immersive experience just on the player interaction alone. The wildlife itself also has a large amount of variation, Caragors can be armoured when being used by Uruks and can be different colours. Graugs can also be a

variety of different colours, however, the differences don't just stop at the colours. Graugs when they change colours also change their elemental abilities, some use ice attacks, some use fire and others use poison. Ghuls do not change in colour however, they have a hierarchy. A group of Ghuls are led by a Ghul matron. Drakes do not vary in colour or elemental ability and stay the same. Every Drake can fly and breathe fire and this do not change. The variation of visuals to the wildlife of Shadow of War make the world instantly feel fresh with each animal, it also makes the world feel inhabited and lived in. This is just from the visuals of the animals, on top of this players also have the added information of the lore and information of the animals which each of their own make the world more and more believable.

The main enemy in Shadow of War are Uruks, also known more commonly as orcs. Uruks are a main part of Tolkien's world, they are the bulk of Sauron's army and are commonly seen in the main series of the game hunting and fighting the main characters. This is consistent throughout Shadow of War. Uruks are the main enemy that Talion faces, they have a variety of ranks associated to them. These ranks increase the difficulty of each opponent, these ranks are: Captains, Warchiefs and Overlords. Captains are the main ranked enemy in the game. Each region of the game has at least 18 captains and a maximum of 6 warchiefs. On top of this there is one overlord per region. The captains each have unique traits and personalities, which make them harder to fight and challenge players to adapt their strategies whilst fighting them.

Much like existing Uruks in Tolkien's universe the Uruks in Shadow of War have their own personalities. Each one also has their own look to them however, the look of the Uruks draw more from Peter Jackson's interpretation (figure 2). This is probably because this is the most recent and most popular depiction of Tolkien's world.

Azog "The Defiler", Bolg, Lurtz and Gothmog (figure 3) are some of the most known Uruks in Lord of the Rings, each one has a different look and personality. Some are more tactical, some are more savage and some are sadistic. This variation of personality is something Shadow of War excels at. Each Uruk the players encounter are different in look, personality and each one uses a different weapon. Some are better at close quarter combat, some are better at range and others are terrible at everything. This variation of visuals compared to the variation in Uruks in Tolkien's universe is almost identical and the recollection a player experiences adds an essence of familiarity to a world that is seemingly new to them. This also allows players to throw themselves further into the world.

Since the game takes most of its visuals from the existing world, that Jackson put onto the cinema screen, most people can relate to this whilst playing because they can refer to a world they have already seen. This at its base value makes the game-world more believable, this is done through recollection and familiarity with the world. To build a believable world however, visuals aren't the only thing that should be looked at. The narrative, gameplay, game design and feel of the game all add to the game-world and believability.

Personality

As well as the world having its own visuals which are inherited, in certain aspects, from Peter Jackson's created world as well as Tolkien's. The game-world has its own personality, which much like the visuals derives from Tolkien and Jackson's versions of Middle Earth. When speaking about personality, the report looks at the characters in the game and considers the lore of the world and if the characters are represented truthfully and in a believable way.

Some characters and enemies in *Shadow of War* are the same characters from Tolkien's world. However, some are brand new in this game, some also borrow aspects of their characters personality from characters in the books, movies and other games. Each of the characters whether they are miniscule and seemingly unimportant to the plot build the world into a more believable state.

The two main characters in *Shadow of Mordor* are: Talion and Celebrimbor. Talion is a character that was created specifically for the video game. He takes heavily in looks and personality from Boromir and in some aspects Aragorn. Celebrimbor is the second main character in the series. He originally appears in the *Silmarillion* as the forger of the rings of power, his appearance however in the games is that of a wraith.

These two characters are bound together and both inhabit Talion's body. Talion himself is banished from death, for being killed in a dark ritual, and found himself denied the peace of the afterlife with his murdered family. Talion seeks revenge against Sauron for this. Celebrimbor crafted the 16 rings of power used in Tolkien's lore, he created them whilst working with Sauron, who in turn deceived Celebrimbor and created The Ring of Power to dominate the other rings. Sauron then captured Celebrimbor to perfect the ring, using him to carve the inscription on the inside of the ring. Sauron then murdered Celebrimbor's family in front of his eyes and killed with his own hammer. But with Celebrimbor's fate bound to the One Ring, he was doomed to remain a wraith until the One Ring is destroyed.

Both characters share a tragic backstory, their families murdered in front of them whilst they were helpless to stop it and through this revenge they are both bound and both work together to use Guerilla tactics to overthrow Sauron's power and kill his servants. Even though the two are joined they both have very different personalities. Talion seeks to remain human and fight for what he believes to be right, using his own abilities to win the fight against Sauron, using his own strength to muster an army and not caring for the Uruks that he enlists. Celebrimbor on the other hand is very selfish in terms of his personality. He dislikes humanity, other than Talion, and doesn't see the need for Talion to fight for the humans. Celebrimbor is also the one who guides Talion toward using the power of The New Ring rather than his own strength. It is also Celebrimbor who treats the Uruks with respect and acts as if they are important to the plan and to Celebrimbor himself.

This direct contrast of personalities leads to clashes between the two characters. Although the clashes are not physical they still carry weight behind them and allow players to choose between personalities. Some players prefer how Talion would deal with a situation and others prefer Celebrimbor's way. As well as this inner conflict the characters have with each other as well as themselves, their differences bring another

aspect of conflict to the story. The game itself is focused on the War happening in Mordor, however a story without conflict is dry and boring to most people and this clash allows players to throw themselves deeper into the characters.

These characters have already been mentioned plenty of time through the report, Uruks are the main bulk of Sauron's army in Tolkien's lore and they make up the main enemy in Shadow of War. At his best, an Uruk is a hardy, cunning warrior, capable of enduring immense pain and privation. At his worst, an Uruk is thuggish, disloyal, and capable of shocking cruelty. They are much like Mordor itself: dark-hearted, dangerous, and keen to spread pain and war. This is no different in the game. All Uruks love to fight and they attack the player on sight, they attack each other on sight as well. The personality being portrayed in the game is directly what Tolkien explains and is what Jackson depicted when created their versions of Lord of the Rings. The different personality of the Uruks is what makes Shadow of War, feel alive. Each Uruk is different and have connections with each other in one way or another. They bring a world into order and build a narrative structure with the players through no means other than playing the game. This naturally created structure brings the players further into the world and bring an added level of immersion. Players can often feel anger, sadness and regret during their conflicts with Uruks in Shadow of War, especially when players fight the named Uruk Captains.

In Shadow of War, the players are hunted by the Nazgul because of the New Ring. Even though very similar in visuals each Nazgul gives off a different feel when the players confront them. Some are more forward and prefer to attack the player relentlessly, others prefer to hang back and counter the players actions, each one however is vastly different. The weapons they each use are often the same until later into the story when three of the Nazgul have their backstories open.

Three are named and they are shown to the players wearing different variations of the Nazgul armour and using the weapons they used when they were mortal men. However, even though the game has tried to stick to Tolkien's version of Nazgul, in the game they fall short. They feel forced into the story, and lack real depth behind their personality. Even the leader of the Nazgul: The Witch-King of Angmar feels forced and falls too short to have a large impact on the player. They are meant to be hunting the player, yet they only appear through the linear narrative and when they do appear in the narrative the player is often accompanied by a secondary character with an Ex Machina to beat the Nazgul. This is a prime example of trying to push a certain personality and it not working. Whereas the natural personality created through the procedural generation in the nemesis system for the Uruks overshadow the narrative choices for personality behind the Nazgul.

In Shadow of War, Sauron is currently in a weakened state and is regaining his power at his legendary tower Barad-dur. Although not physically present until the climax of the game, Sauron's personality is shown through flash-back sequences in regards to the Nazgul and Celebrimbor. The game never shows Sauron speaking to the characters in the cutscenes and he is always in his Fair Form, where he resembles a blonde elf, during the scenes Sauron is shown to be whispering the characters and working from the shadows. Something which is apparent throughout the entire series and without ever having to say

a word, the player feels a sense of dread of foreboding whenever they see Sauron on screen. In regards to his personality, it is depicted very well here. As a great deceiver and a villain with a plan and not just a villain for the sake of being a villain, Sauron is as ever, evil and dangerous.

With all the personality derived from the lore of the world that Tolkien created and the adaptation from Peter Jackson. The game stays as true to the lore as in can in terms of personality. Every character acts in a way that is truly believable regarding the existing material however even though they stay true to the lord, some of the character most notably the Nazgul feel unfinished and altogether force. Aside from the minor hiccup of a main character feeling forced the game feels like the characters belong in the world and when adding to this the consistency in visuals and personality from the first game, players can formulate a better opinion of if the world is immersive or not.

MDA Framework

The MDA Framework is a way of analyzing a game and being able to formally study the game and this report will look at this framework regarding Shadow of War. Previously mentioned has been the visuals and personality of the world and how they add and take away from the immersion factor of the game. The last section to look at is the MDA and if they bring another level to the immersion factor in the game or if they add nothing, or even take away from the experience. The mechanics describe the “hidden” section of the game. These are the rules and the interactions described with algorithms and data structures. The Dynamics is the part of the mechanics that the players can see. It describes what the outcome is when the player presses a button or sends an input in general to the game. Finally, the Aesthetics describe the desirable emotional response evoked in the player/s when the player/s interact with the game system.

When playing Shadow of War, what do players experience? They experience the open world, the combat of the game and the interactions within the game. These are all created through a set of rules and algorithms. Together with the content in the game the mechanics support the overall gameplay dynamics. For example, in Shadow of War, players can climb walls. Somewhere in the code this rule is laid out and is waiting for the Dynamics to come into play so it can show the players what is happening.

The dynamics of climbing a wall are very simple in Shadow of War, the players press a button (A, X etc.) and the character model, grabs onto the wall and begins to climb. This all works together to start creating the Aesthetic of the game, what emotions does climbing the wall elicit from the player and this is where the Aesthetics come into play.

The Aesthetics are the desired emotional response evoked from the player when they interact with the game. However, when talking about aesthetics the report is not talking about fun or gameplay, it is talking about: Sensation, Fantasy, Challenge, Discovery, Expression and Submission. Each one of these keywords and the simple mechanic of being able to climb a wall can evoke a different one of these responses from any number of players. But why is this important? When considering immersion and how the brain recollects memories why is this MDA framework important? It is true that through the visuals of a game-world and the existing personality being reused can immerse users.

This is known because people immerse themselves in movies daily. When talking about Shadow of War however, players are not watching a movie. Whilst Visuals and the personality are important for a Lord of the Rings game and main factor of this is the players own input.

Without the players own input, they wouldn't meet the Nazgul or Sauron and the game world would be full of grunt enemies and nothing unique and this is where the MDA comes into play and takes immersion to a new level. Allowing the players to not only see events unfold before them but allowing players to create the events and steer the events in a direction. The player guides their armies through the world and this leads to conflicts and opens the player up to the Uruk personalities and conflicts.

CONCLUSION

When considering the existing world of Lord of the Rings there are plenty of things people can take away. Specifically, the look and feel of the world to them. In Shadow of War this is no different. If players were to watch the cutscenes they would experience a Lord of the Rings story, involving conflict and characters clashing.

Yet adding the player interaction lets the players become truly immersed. Recollection, allows players to experience this new world as one that is familiar as most players would have seen the movies or read the books before playing the game. Yet for those that hadn't seen the movies or read the books, this world would have been completely different and that is where the MDA framework really adds to the game. However, do these contributing factors really add to immersion. During this report, the writing gathered a small group of 4 people. 2 had seen Lord of the Rings and 1 had read the books and the other had no experience with the world at all. During their play time, those who had seen the movies, knew that Uruks were the enemy and that they would be fighting them up close and personally and those players did exactly that, these same players also avoided the story mission and wandered the open world attacking and fighting any Uruk they could with different tactics. The one who had read the book spent some time considering the appendices and backstories of character before going out into the world and exploring and then doing the story missions and fighting only when necessary and the final player, didn't play the game for long and found it dull and boring.

In terms of storytelling and being engaging, Shadow of War can be classed as a very immersive experience, there is conflict, villains struggle, both inner and outer. All of this together in terms of narrative means the story itself is immersive adding player experience to this creates a more commonly accepted immersive experience. However, it should not be ignored that players who had no experience with Lord of the Rings in any form did not enjoy the game and found no form of immersion from it.

In conclusion, this report believes Shadow of War is immersive, but to players who have experience with the world and players who can recollect things they have seen and/or read from pre-existing material. Whereas new players have the struggle of getting through the lore and existing material to find a game that is over-burdened with material which can be overwhelming and take away from them being immersed. It is always

difficult to gauge a player's immersion and using real world examples with varying experiences of Tolkien's world gave a better insight into the game.

GAME REFERENCES

Monolith. (2014). *Middle Earth: Shadow of Mordor*. [Xbox One, Standard Edition], Warner Brothers, World Wide: October, 2017.

Monolith. (2017). *Middle Earth: Shadow of War*. [Xbox One, Standard Edition], Warner Brothers, World Wide: November, 2017.

BIBLIOGRAPHY

2017. *Giant Bomb*. <https://www.giantbomb.com/invisible-wall/3015-177/>.

Bergland, Christopher. 2017. "The Neuroscience Of Recalling Old Memories". *Psychology Today*. <https://www.psychologytoday.com/blog/the-athletes-way/201507/the-neuroscience-recalling-old-memories>.

CHI '02 Extended Abstracts On Human Factors In Computing Systems. 2002. New York, NY: ACM.

Conditt, Jessica. 2017. "The Nemesis System Is Huge In 'Middle-Earth: Shadow Of War'". *Engadget*. <https://www.engadget.com/2017/03/08/middle-earth-shadow-of-war-gameplay-demo-wb/>.

Gallant, Mathew. 2009. "Mechanics, Dynamics & Aesthetics - The Quixotic Engineer". *Gangles.Ca*. <http://gangles.ca/2009/08/21/mda/>.

"How Do You Tell A Good Story In An Open World RPG? - Comicsverse". 2017. *Comicsverse*. <https://comicsverse.com/make-good-story-open-world-rpg/>.

Hunicke, Robin, Marc LeBlanc, and Robert Zubek. 2004. "Cite A Website - Cite This For Me". *Cs.Northwestern.Edu*. <https://www.cs.northwestern.edu/~hunicke/MDA.pdf>.

"In-Game: From Immersion To Incorporation". 2012. *Choice Reviews Online* 49 (05): 49-2483-49-2483. doi:10.5860/choice.49-2483.

Jennett, Charlene, Anna L. Cox, Paul Cairns, Samira Dhoparee, Andrew Epps, Tim Tijs, and Alison Walton. 2008. "Measuring And Defining The Experience Of Immersion In Games". *International Journal Of Human-Computer Studies* 66 (9): 641-661. doi:10.1016/j.ijhcs.2008.04.004.

Madigan, Jamie. 2017. "The Psychology Of Immersion In Video Games". *The Psychology Of Video Games*. <http://www.psychologyofgames.com/2010/07/the-psychology-of-immersion-in-video-games/>.

- Madigan, Jamie. 2017. "Using Psychology To Design Leveling Systems". *The Psychology Of Video Games*.
<http://www.psychologyofgames.com/2017/12/using-psychology-to-design-leveling-systems/>.
- "Mechanics Dynamics Aesthetics(MDA): Game Design Theory Behind Games". 2017. *Gamedevelopertips*.
<http://gamedevelopertips.com/mechanics-dynamics-aesthetics-game-design-theory-behind-games/>.
- Mohamed, Ahmed. 2017. "The Importance Of Sound Design In Games - Onlysp". *Only Single Player*. <http://onlysp.com/the-importance-of-sound-design-in-games/>.
- "Recollection Meaning In The Cambridge English Dictionary". 2017. *Dictionary.Cambridge.Org*. Accessed December 12.
<https://dictionary.cambridge.org/dictionary/english/recollection>.
- Short, Tanya. 2014. "Level Design In Procedural Generation". *Gamasutra.Com*.
https://www.gamasutra.com/blogs/TanyaXShort/20140204/209176/Level_Design_in_Procedural_Generation.php.
- "The Nemesis System - Middle-Earth: Shadow Of Mordor Wiki Guide - IGN". 2015. *IGN*. http://uk.ign.com/wikis/middle-earth-shadow-of-mordor/The_Nemesis_System.
- "Why Do You Need Conflict In A Fiction Book Or Short Story?". 2016. *Mariskamedia.Nl*. <http://mariskamedia.nl/thewingedwoman/why-conflict-fiction-book-short-story/>.
- "Why Does Every Story Have A Villain? | Ransomed Heart". 2016. *Ransomedheart.Com*. <https://www.ransomedheart.com/daily-reading/why-does-every-story-have-villain>.
- Yonelinas, Andrew P. 2002. "The Nature Of Recollection And Familiarity: A Review Of 30 Years Of Research". *Journal Of Memory And Language* 46 (3): 441-517. doi:10.1006/jmla.2002.2864.