



# ΕΑΡΩΣΤΑΡΑ

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Game Development Document

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## SUMMARY

Eardstapa is an immersive adventure, Virtual Reality game. Shrouded in the mystery of biblical legends, tales of Holy Grails, relics of long passed Saints, inspired by Anglo-Saxon culture, and literature.

The player must journey through a picturesque landscape, following a breadcrumb trail of clues piecing together the diary of their Professor. The player will complete puzzles and solves riddles to complete the diary along their journey, ultimately to discover and retrieve a long-lost sought-after relic.

The game is intended to be a calming respite from the modern gaming industry which is oversaturated with high paced, overly competitive stressful games. Eardstapa aims to provide players with a simple immersive gaming experience in which players can truly feel as if they're a part of the video game; by utilizing simple puzzle solving mechanics, photorealistic level design, and an intriguing narrative.

## GENRE

Eardstapa is a single player adventure game. Designed to be a slow-paced and immersive narrative experience. Inspired by Anglo-Saxon literature such as the poem "Wanderer" found in the Exeter Book anthology, and two key games; theHunter: Call of the Wild (Expansive Worlds, 2017), and Limbo (PlayDead, 2011).

## TARGET AUDIENCE

Eardstapa is intended for casual virtual reality gamers of all ages with a love for history, and historic fiction. However, audiences from twelve plus may find the games story easier to follow / interpret due to the narrative's riddles and biblical inspiration.

## TARGET PLATFORM

This project is intended for use on virtual reality platforms, based on personal computers. Such as the Oculus Rift (Oculus VR, 2016). Personal computers required for this game must also be built for use with intensive software's / video games, as Eardstapa must render large game levels which can use large amounts of video memory, and processing power.

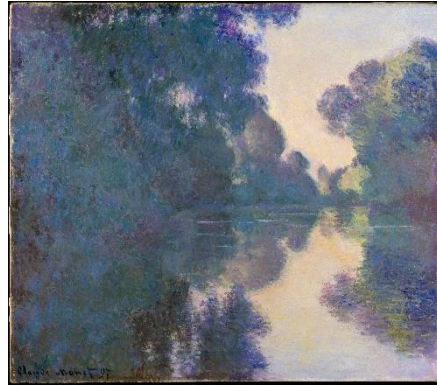
## KEY FEATURES

Eardstapa has two key features, a riddle-based narrative inspired by biblical myths and legends, and immersive level design / environments, which utilize the games core mechanics of puzzle solving, and player pickups.



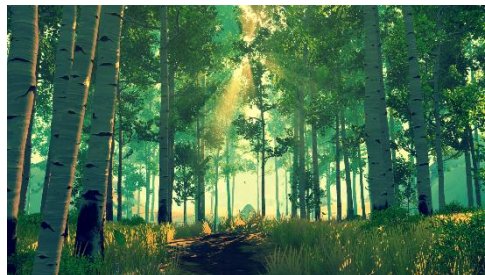
## ART STYLE

Eardstapa utilizes an exaggerated art style, of heavily stylized photorealism. The reason for this is to create a unique and visually pleasing visual user experience, giving the user the feeling that they're walking through an impressionist painting (Cite maybe required).



*Figure 1- Morning on the Seine near Giverny*

Impressionist style paintings such as Figure 1 by Claude Monet (Monet, 1897), are the chief inspiration for the art style that will be used in Eardstapa. Eardstapa will have visual emphasis on light, movement, and an exaggerated photorealistic colour palette.



*Figure 2 – Screenshot of Firewatch*

The game Firewatch(Campo Santo, 2016), is another chief inspiration for the visual style of Eardstapa. Firewatch(Campo Santo, 2016) is visually very saturated with a large emphasis on light, and filtered colour scheme, as shown in the screenshot about.

Eardstapa will emulate the visual feeling that a filter is applied to the game, by using emphasis on light, and colour washed screen.



## UNIQUE POINTS

Eardstapa will utilize a virtual reality platform, exaggerated photorealistic art style, and in-depth narrative to create a unique player experience. Rather than simply being a virtual reality video game, Eardstapa will be an interactive alternate history narrative; In which the player feels they *are* the protagonist living within the games universe, instead of the generic player experience of simply controlling a pre-ordained character.

## FEATURES

- Provide a beautiful impressionist style visual game world.
- Define a new hybrid of the interactive narrative and adventure genres.
- Create an immersive physically stimulating gameplay experience using virtual reality.
- Provide a clean, seamlessly transparent user interface and Hud.
- Tell an alternative history, biblically inspired fictional narrative.

## COMMON QUESTIONS


*Why create the game* - Eardstapa will be created to break the monotony of the gaming industry oversaturated with games that prioritize multiplayer, and player versus player competition such as battle royals or first-person shooters such as Counter-Strike (Valve, Hidden Path, 2012). Such games can often be a greater cause of frustration rather than the pleasure and fun that video games are intended to be. Whereas Eardstapa aims to be a calming interactive narrative experience for the player, providing a fun, pleasurable experience without the frustrations and lack of narrative drive.

*What do I control* - As the player you will control the human protagonist of the game's narrative inside the game world, using keyboard and mouse as the key inputs for movement and interaction. As well as using a virtual reality headset for the games visual output platform, and camera control.

*What's the focus* - The focus of the game is its story telling and the characters progression through the narrative, using the games progression mechanics.

*How many characters / actors present* - Throughout the game there are two key characters present, however there will be interactive fauna within the game world, and a plethora of secondary actors loosely referenced throughout the games narrative.

*Where does it take place* - Our game takes place in an alternate modern-day England in which the Anglo-Saxons were victorious in the Battle of Hastings, and thus England's predominant culture and language remains that of the Anglo-Saxons.



*What platform is the game designed for* - Eardstapa is designed for use on personal computers, alongside a virtual reality headset for output, and with a mouse and keyboard for player controls.







## The Story

Eardstapa takes place in modern day England in which the Anglo-Saxon forces were victorious in the Battle of Hastings, repelling the Norman invasion. Thus preventing the dilution of Anglo-Saxon culture and language of Norman occupation.

It's 2018 and King Alfred the fifth sits at the helm of the English monarchy leading from the palace of Wessex. However years of unfruitful harvests and economic struggles have led to religious turmoil throughout the Kingdom of England. Panic and scaremongering blazes throughout church and peasantry alike. Has God turned his back on England? However a most unlikely saviour will come to the aid of the struggling nation, a wayward Archaeologist known to others as the "Eardstapa", the wanderer.

The Eardstapa tasked with a personal goal of discovering the mystery of his professor's disappearance, has one lead – a set of vague instructions left on the desk of his mentor. By following these instructions the Eardstapa discovers the true reason for his professor's sudden disappearance.

The professor after a lifetime of historical study and theological research has made a discovery so important only he can be trusted with its recovery. Leaving behind vague instructions to his whereabouts for the Eardstapa to follow.

At the culmination of the Eardstapa's journey he discovers the tragic fate of his mentor's quest, death in the grasp of completing his life's work. The re-discovery of what could be the Holy Grail, and a chance to change the ill tide of England.

## Timeline of Eardstapa's History

### The Foundation Years

- 927 AD – The Anglo-Saxon petty kingdoms unite to form the Kingdom of England
- 1066 AD – The English army repels Norse, and Norman invasions at the Battle of Stamford Bridge, and Hastings
- 1080 AD – Major Church reformations take place, England becomes known as "God's Kingdom".

### The Modern Years

- 2010 AD – The English civil war for succession
- 2012 AD – King Alfred V is crowned King of England
- 2016 AD – The second great economic depression
- 2018 AD – Professor Osbert disappears, Eardstapa's journey begins.

# PREVISUALISATIONS



Tonsure haircut, common in Catholic priests. As a symbol of religious devotion.

Wearing a Priest's Alb, with a traveller's poncho.

Figure 3 - Professor



Gilded jumper, in reference to depictions of key catholic figures.

Modestly dressed for travelling.



Figure 5- Eardstapa



Halo, indicating holiness.

Purple coat, indicating wealth.

Figure 4 - Depiction of a Martyr



Figure 6 - Rabbit

The Fauna to appear in the game's wilderness.



Figure 7 - Bat



Figure 8 - Deer



Figure 9 - Mock-up of Player's journal



Figure 11 - Lance of Saint George

Examples of  
Pickups  
within the  
game.



Figure 10 - Pendant of Saint  
Mary



Figure 12 - The Holy Grail



Prototype of the  
Story section, in  
the players  
journal.

Figure 13 - Story page of the player's journal

# CHARACTERS



Figure 14 - Eardstapa

## EARDSTAPA

**Name:** To be set by the player.

**Height:** 6ft.

**Physical appearance:** A tall slender figure, with a bald shaven head, and little to no facial hair. Dressed in a light attired of trekking trousers, brown boots, and a tight blue hoodie.

**Description:** A quiet, determined archaeologist with a strong love of exploration, and discovery. Who chooses to walk the path of life alone, rather than confine in the support of others.



Figure 15 - Professor

## PROFESSOR

**Name:** Professor Osbert.

**Height:** 5'6ft.

**Physical appearance:** Short, slender figure. Adorned in a brown priestly gown, and sandals. With a tonsured haircut, and deep-set, puffy eyes.

**Description:** Professor Osbert is a well-educated, highly pious man educated at the University of Wessex. Osbert dedicated his life to archelogy, and the rediscovery of theological artefacts. However, in later life his piety and obsession for rediscovering saintly artefacts, has led him to what people often believe to be madness.





# CHAPTERS

## CHAPTER ONE

The introduction chapter for the game. Serving as a tutorial for the game's mechanics, and an introduction to the game's protagonist "Eardstapa", and narrative.

### STORY

The player begins the chapter at the remnants of a camp left by Professor Osbert within the woods of The Cheviot hills, in Northern England. After exploring the camp and its surroundings the player finds a trail potentially left by the professor heading east towards the coast. The player then follows the trail leading them to a ford (double check this) where they will encounter their first major obstacle. To cross the stream at the ford the player is forced to find something they can use to bridge the gap left by missing planks in the wooden bridge. After crossing the bridge and walking for a short distance the player will then come to the end of the tree line exposing them to the coast, where they find the last clue of the chapter left by the Professor, a map of the "Holy Island" Lindisfarne.

### SETTING

The Cheviot (Players camp) -> Player travels towards Lindisfarne.

### ACTORS

Wild Birds - Flying above the tree line.

Deer - Roaming the woods, and trees around the player.

## CHAPTER TWO

This chapter serves as the middle ground of the game where the bulk of the narrative build up takes place. Within this chapter the player will also have to utilize the games core mechanics of puzzle solving, exploration and player picks ups.

### STORY

This chapter begins as the player arrives on the "Holy Island", after sailing across the sea. The player must once again pick up the trail left by the Professor, which will ultimately lead them to the ruins of the ancient Abbey.

### SETTING

Lindisfarne Island -> Player travels towards a hidden chamber in Lindisfarne's ruins.

### ACTORS

Wild Birds – Over the island.

Rabbits – Roaming around the islands.





## CHAPTER THREE

The final chapter within the game, where the narrative will come to its conclusion. This is also the chapter where the player will have its hardest tasks in which they must utilize the game's mechanics to overcome.

### STORY

By following the breadcrumb trail of clues left by the Professor, the player uncovers a chamber left undiscovered by archaeologists throughout the ages. As the character completes the game's final puzzle, they discover their professor. Mysteriously lying dead in front of the *lance of Saint George*.

### SETTING

Hidden chamber under the Lindisfarne abbey.

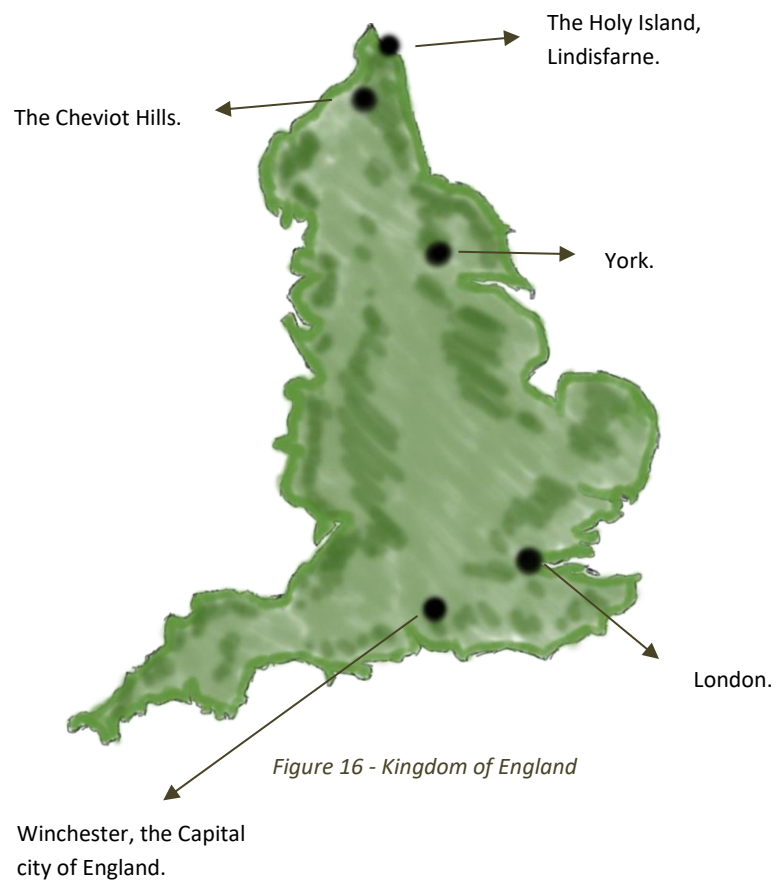
### ACTORS

Bats – Flying / resting over the players head in the hallways of the abbey's ruins.

Rats – Scuttling around the vaults of the abbey's ruins.

# LEVEL DESIGN

## The Setting



## LEVEL ONE

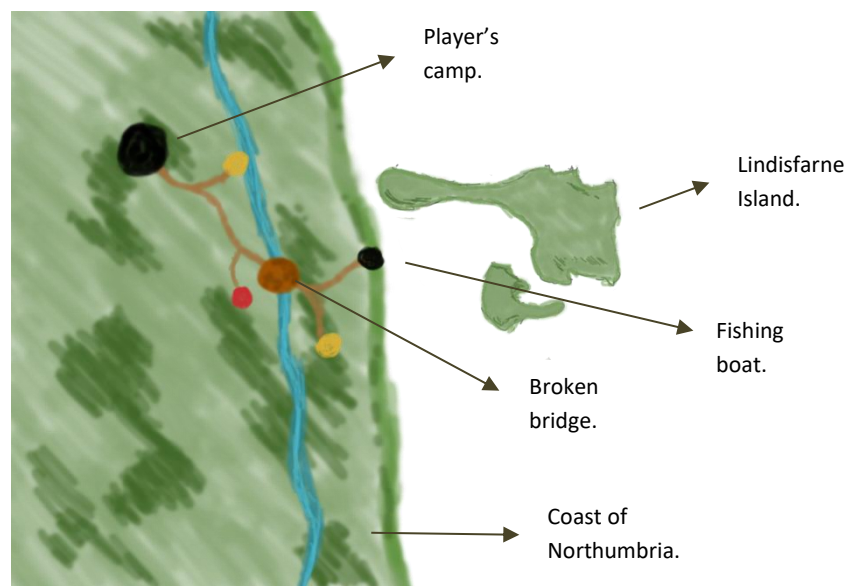


Figure 17 - The Cheviot to Lindisfarne



## LEVEL TWO

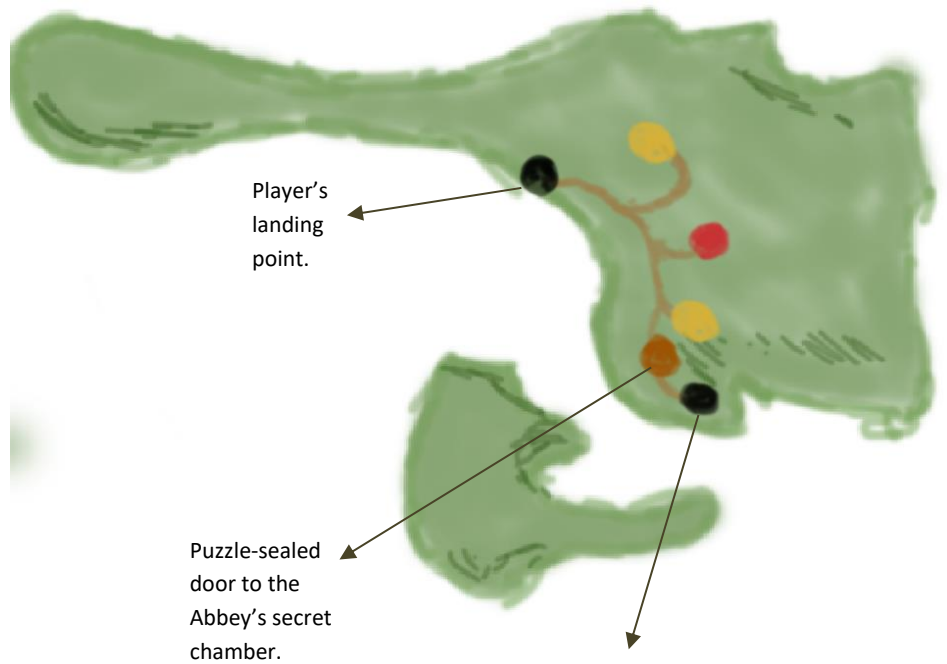
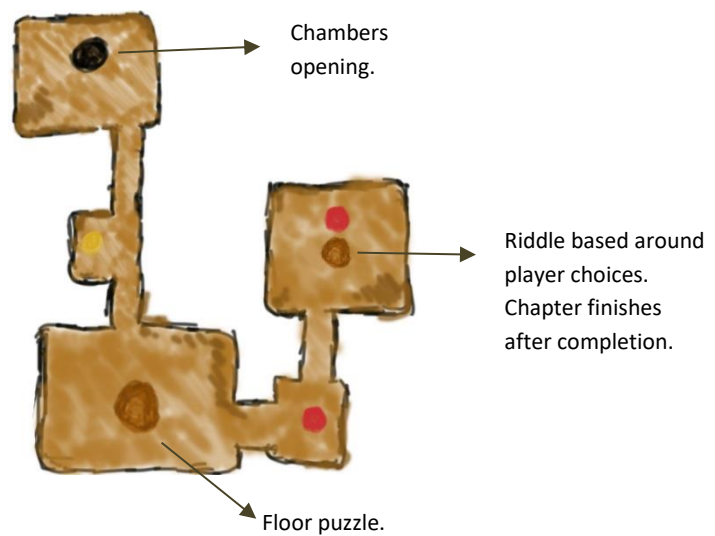


Figure 18 - Lindisfarne Island

Hidden chamber in the Abbey's Ruins.

- → Progression Pickup.
- → Story Pickup.

## LEVEL THREE



- → Progression Pickup.
- → Story Pickup.

## INPUT METHODS

Eardstapa's intended platform of use is with the Oculus Rift headset (Oculus VR, 2016), and its two hand controllers. Because of this the input methods for Eardstapa are based around camera control from the headset, and player controls from the hand controllers.

## OCULUS RIFT CONTROLS

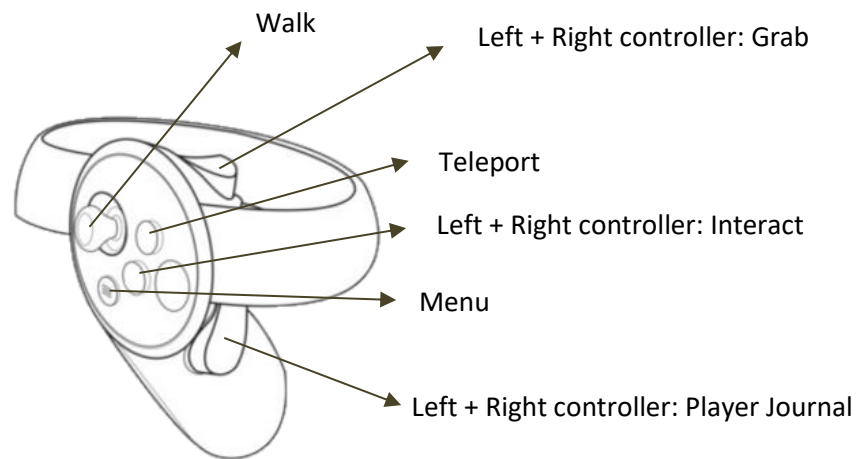


Figure 19 - Rift Controller



## CORE MECHANICS

Eardstapa has four core mechanics, which dictate how the game must be played in order to achieve completion: Pick-ups, Teleportation, Walking, Progression, Internal Economy.

### PICKUPS

Throughout Eardstapa there is a plethora of game objects that can be found within its levels. These game objects will from a distance appear just as any other object does, however when the player gets close to them, a highlight will appear. When the player collects a pick-up, a UI prompt will appear, containing the pick-ups name, description, and other relevant details.

### PROGRESSION PICKUPS

These pick-ups are required within the game as pre-requisites to complete gameplay elements such as riddles, and puzzles. The player will be prompted by the games narrative to seek these pick-ups which will be hidden throughout the game's levels. Progression pick-ups will highlight red when then player gets close, as well as providing the player with an audio prompt.

### STORY PICKUPS

These pick-ups do not contribute to the progression of the game; however, they act as a form of story unlocks. Each story pick-up provides the player with a lore unlock, such as character biographies, new pages to the Professors notes, or story relative quotes. All of which are accessible using the players journal. Story pick-ups will highlight gold when then player gets close, as well as providing the player with an audio prompt.

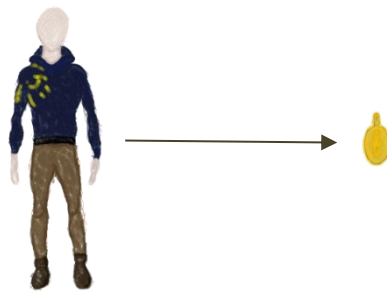


Figure 20 - Story pickup example

As the player approaches, the locket begins to glow gold, indicating that it's a story pickup.



## MOVEMENT

Movement in the game can happen in one of two ways, Teleportation, or walking.

### TELEPORTATION

The primary movement mechanic in Eardstapa, is teleportation. Players will be able to select where they want to move to with the aid of a highlight showing where they're aiming and pressing the "Blink" button. If the location the player has selected is player accessible, then the screen will darken, as the characters game object is transformed from its location to the player selected area and will brighten again once the movement is over to prevent cyber sickness.

### WALKING

An alternate form of movement which can be used rather than teleportation is walking. The player will be able to roam around the game levels at a constant speed, to emulate walking. This mechanic is in place for players less susceptible to cyber sickness, and those who wish to explore the games levels more freely than being limited to blinking from area to area.

## PROGRESSION

Eardstapa's progression mechanic, is a simple quest-based system. Players will progress throughout the game by completing quests; Such as solving riddles and completing puzzles. Each chapter will have a single main quest which the player will discover by finding the Professors diary entries. Upon discovering dairy entries, quests will trigger. The player will receive a visual notification, via pages being added Eardstapa's journal. Once the player has completed the levels main quest, they will then be able to travel to the next game area, where the next chapter will begin.

Example of Progression flow:

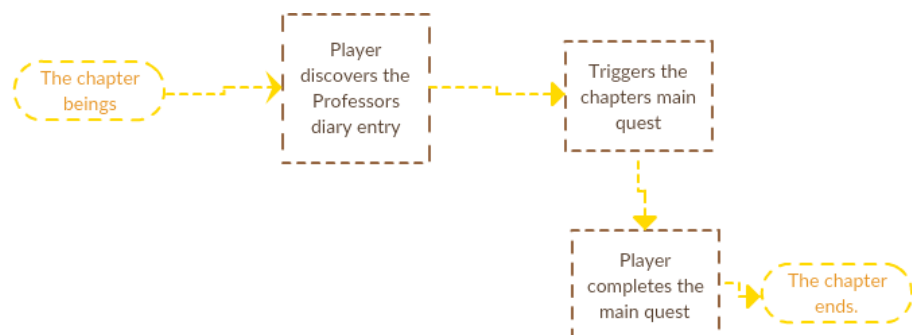


Figure 21 - Progression flow

## INTERNAL ECONOMY

Eardstapa's Internal Economy system will be a score system, known as the "Piety score". When the player finds and collects a story pick-up, they will be rewarded by adding points to their Piety score. Each story pick-up will reward a varying amount of Piety score dependent on the importance of the relic, and the narrative behind it.

For example, if the player was to discover the "Lance of Saint George" pick-up they would be rewarded with a large amount of Piety score, due to the theological significance of the relic. However, if the player was to discover the "Gold tooth of Saint Credan" pick-up they would receive a significantly smaller amount of Piety score, due to the lesser known martyr it represents and its lower theological importance.

At the end of the game, the players Piety score from each chapter will be combined and used to rank the player in one of four tiers. With each tier representing a different level of playthrough success, this adds an incentive for players to collect as many pickups, and explore the games narrative further.

The four tiers of success being:

Heretic – 100 Piety score

Devout – 300 Piety score

Saintly – 500 Piety score

Devine – 1000 Piety score.

Example of Internal Economy Flow:

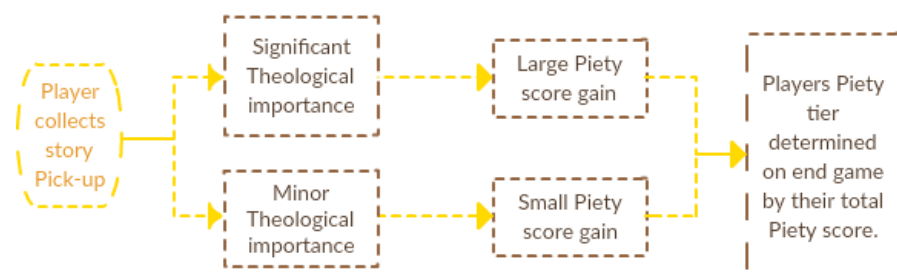


Figure 22 - Internal Economy Flow

## ARTIFICIAL INTELLIGENCE

Eardstapa will utilize Artificial Intelligence as a mechanic in the form of non-playable characters. Each level will host a variety of different AI agents, for example in the first chapter there are Deer, and wild Birds. These AI agents will populate the levels scenery, as well as reacting to the movement of the player. For example, if a player attempts to approach a deer, that deer will then react by running away.

Throughout the game the player will come encounter AI agents, that are interactable. Such as agents which the player can have a dialogue with, or agents that the player can tame. These interactable AI agents will be utilized within the game's progression mechanic, as well as a tool to further the games narrative depth.

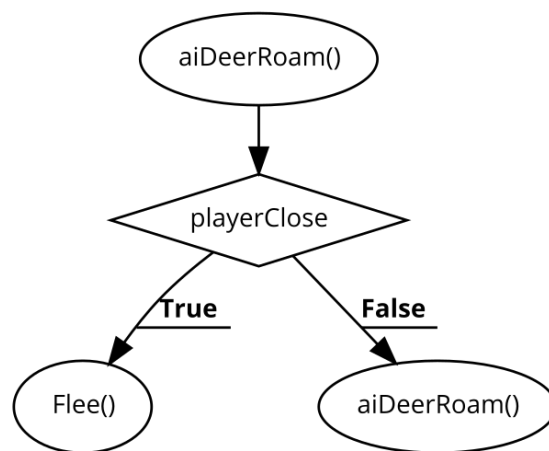


Figure 23 - AI Pseudo code

## THE PLAYERS JOURNAL

Traditional user interfaces such as Heads Up Displays are not compatible with Virtual Reality platforms. Due to VR headsets not having fixed space. Ultimately as an alternative to implementing a fixed space user interface such as a HUD Eardstapa will utilise the Player Journal. A game object containing all the aspects a traditional menu system would, such as quest logs, story, and settings.



Figure 24 - Player's Journal

Figure 8 is an example of how the journal will look, displaying each of the four key sections of a traditional user interface, as titles in a journal. The player will be able to open the journal by pressing a button on the controller, making the book appear in their hand. They will then be able to select their desired section of the journal by pressing the trigger button on their other hand.



Figure 25 - The Player's Journal Story page

Each header of the journal will open its own page when selected. For example, Figure 9 displays a story page. Which in the game, will contain the narrative details of Eardstapa, such as the chapters story, and narrative unlocks from the story pickups.



## INSPIRATION



Figure 26 - Screenshot of Firewatch

Firewatch (Campo Santo, 2016), and TheHunter: Call of the Wild (Expansive Worlds, 2017), serve as the two key visual inspirations behind Eardstapa. Firewatch (Campo Santo, 2016) has a very limited colour palette, and low poly modelling style which it uses to emphasize light. Ultimately creating a saturated visual style. Eardstapa will apply a very similar method of limiting colour, and emphasising light to create the post-impressionist visual style.



Figure 27 - Screenshot of TheHunter

TheHunter: Call of the Wild's (Expansive Worlds, 2017) expansive forest-based levels create the feeling that the player is roaming around a wild world un-touched by civilisation, accompanied by nothing but fauna. Eardstapa's wild landscapes will look to emulate the natural ambience that TheHunter creates within its level design to give the player a relaxing, tranquil experience.



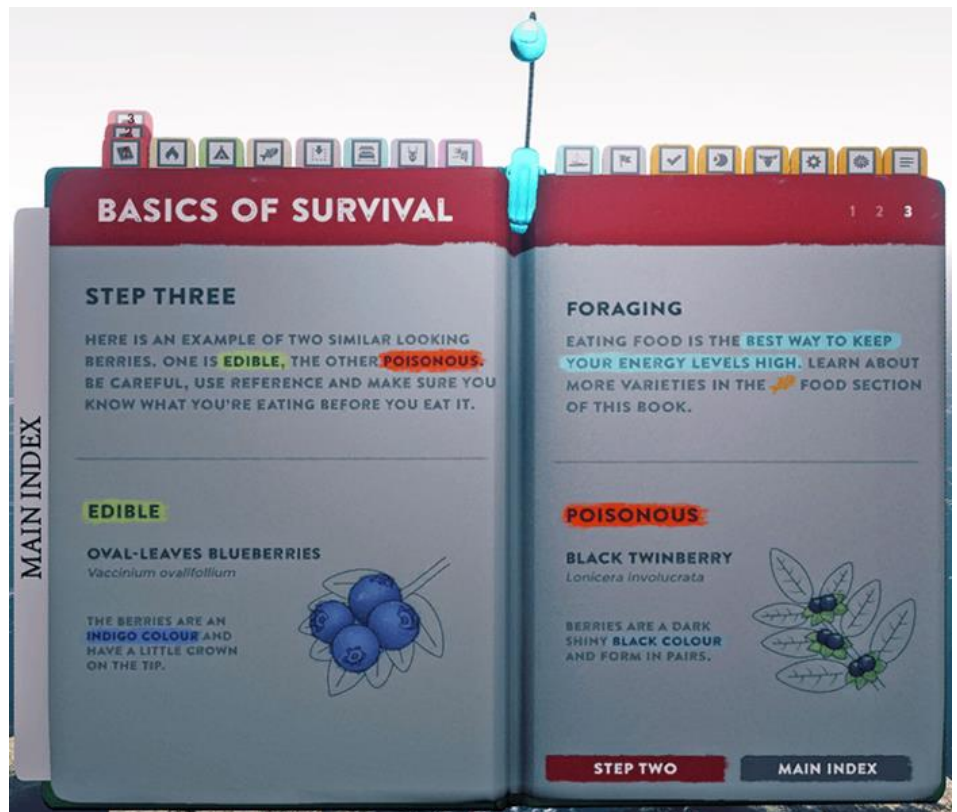


Figure 28 - The Forest's survival guide

The Forest (Endnight Games Ltd, 2018) uses a “Survival guide” which contains the game’s short guides, player instructions and game settings which would typically be found in a traditional menu screen. This feature serves as the key inspiration behind the “Player Journal” that Eardstapa will use in place of a non-diegetic UI, which will also act as an alternative to a tradition menu screen.



Figure 29 - Dishonored's blink teleport

Dishonored’s (Arkane Studio, 2012) “blink teleport” mechanic, in which a player can teleport from one location to another using a graphical aid, serves as the chief inspiration behind how Eardstapa’s teleport mechanic will work. Much like Dishonored’s Eardstapa’s teleport mechanic must “blink” and darken the players screen to prevent cyber sickness and move them from one location to another, by using a graphical aid.

## USER INTERFACE

### MAIN MENU



Figure 30 - Main menu prototype

The main menu in Eardstapa will be stylised in the same format as the “Player Journal”, as an old book with separate headers for each menu item, which when selected will turn to their respective pages.

### MAIN MENU FLOW

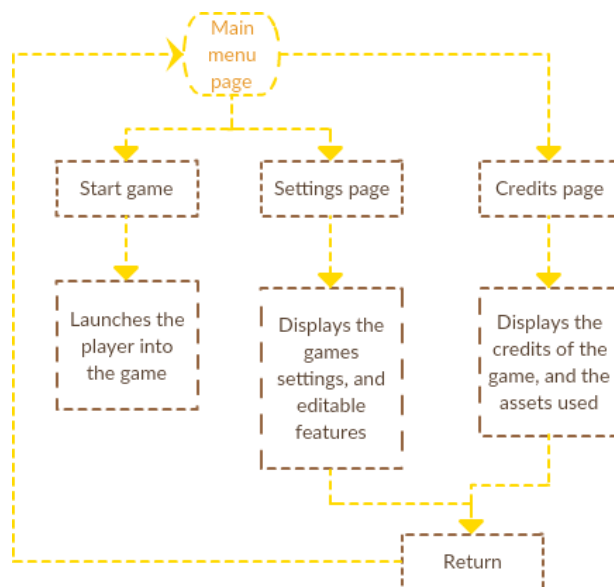


Figure 31 - Main menu flow



Figure 25 is an example of how the main menu will look once a menu item and been selected.

## PAUSE MENU



Figure 32 - Pause menu prototype

The Pause menu, which will be accessible when the player presses the start button in Eardstapa, will be stylized in a similar fashion to the main menu, and the players journal. Visually the pause menu will look like a piece of parchment, as if ripped from the players journal; and will allow the player to change their settings, quit the game, or resume playing.

## PAUSE MENU FLOW

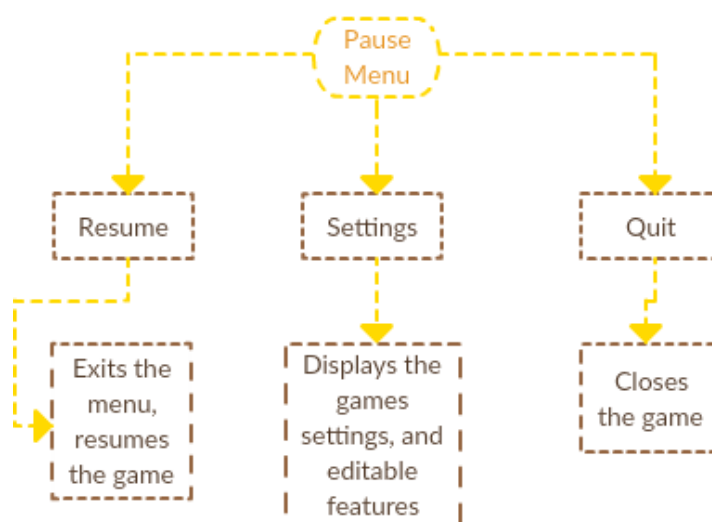


Figure 33 - Pause menu flow

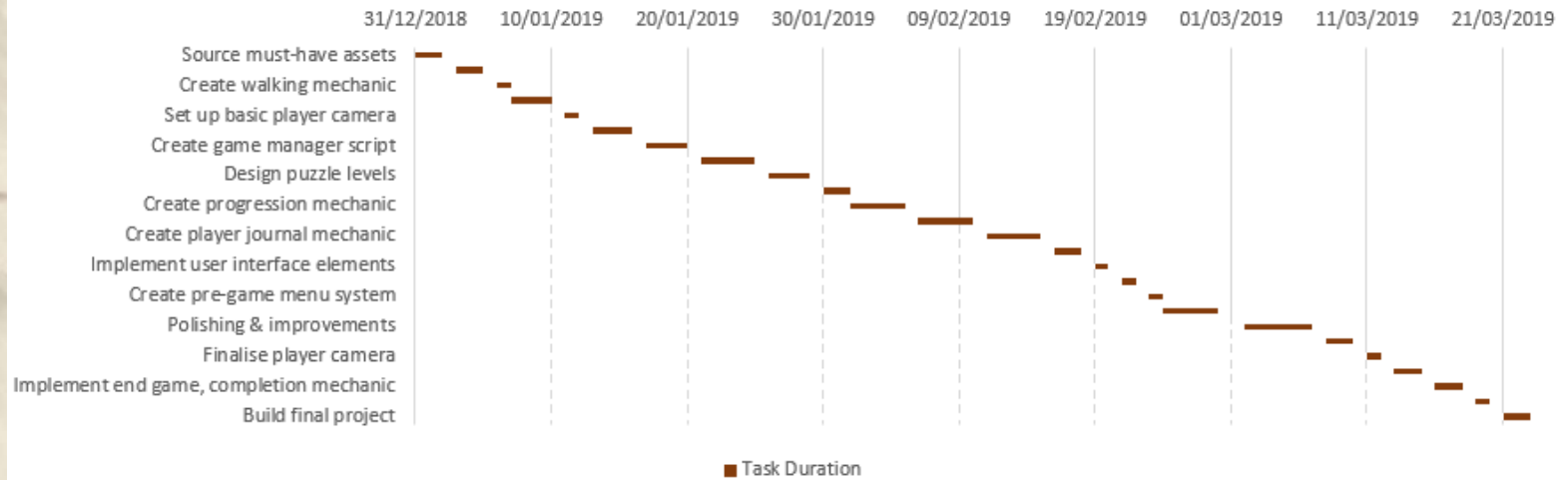


## ASSETS REQUIRED

Audio asset	Necessity	Visual asset	Necessity
Assortment of “fantasy” music	Should	Terrain building pack	Must
Woodland ambiance	Should	Shader graphics	Must
Coastal ambiance	Could	Water graphics	Should
Dungeon ambiance	Could	Ruined building models	Must
Achievement music for chapter completion	Could	Player, and Professor models	Must
Progression pickup chime	Must	Rabbit model	Should
Story pickup chime	Must	Bat model	Should
Teleport (blink) noise	Must	Deer model	Should
UI interaction chime	Must	Rat model	Should
Pickup ambience	Should	Hand models, for VR use	Should
Footsteps	Should	Nature models, such as flowers	Could
Animal footsteps	Should	Boat model	Should
Animal grazing	Could	Improved particle effects	Could
Flying sound	Could	Pickup models	Must

All assets listed above will either be sourced through the Unity Asset store or created by myself.

# PROJECT PLANNING



Task	Start Date	Task Duration	End Date
Source must-have assets	31/12/2018	2	02/01/2019
Prototype terrain design	03/01/2019	2	05/01/2019
Create walking mechanic	06/01/2019	1	07/01/2019
Create teleporting mechanic	07/01/2019	3	10/01/2019
Set up basic player camera	11/01/2019	1	12/01/2019
Create basic XML database	13/01/2019	3	16/01/2019
Create game manager script	17/01/2019	3	20/01/2019
Create pickup mechanic	21/01/2019	4	25/01/2019
Design puzzle levels	26/01/2019	3	29/01/2019
Design riddle levels	30/01/2019	2	31/01/2019
Create progression mechanic	01/02/2019	4	05/02/2019
Create AI mechanic	06/02/2019	4	10/02/2019
Create player journal mechanic	11/02/2019	4	15/02/2019
Implement graphics for player journal	16/02/2019	2	18/02/2019
Implement user interface elements	19/02/2019	1	20/02/2019
Create in-menu system	21/02/2019	1	22/02/2019
Create pre-game menu system	23/02/2019	1	24/02/2019
QA Testing / Feedback	24/02/2019	4	01/03/2019
Polishing & improvements	02/03/2019	5	07/03/2019
Finalise terrain and level design	08/03/2019	2	10/03/2019
Finalise player camera	11/03/2019	1	12/03/2019
Finalise puzzle, and riddle design	13/03/2019	2	15/03/2019
Implement end game, completion mechanic	16/03/2019	2	18/03/2019
QA Testing / Feedback	19/03/2019	1	20/03/2019
Build final project	21/03/2019	2	23/03/2019



## SEMINAR FEEDBACKS

### CORE MECHANIC FEEDBACK

For the prototype seminar the core mechanic of player Pickups was presented. The core mechanic works by using collision checks to monitor when the players game object collides with another object using the tag "Pickup". When the player collides with an object tagged "Pickup" the game then loops through a List variable of Pickup class objects imported from an XML document, looking for an object matching the colliders name. Once the item is found from the List then a visual pop-up appears on the players screen, alerting them of the item they have found and the details of the item. Which are both collected from the List.

During the seminar it is shown how the Pickups will be used as the progression mechanic throughout game. For the player to collect the "Sphere" Pickup and complete the seminar level, the player must first collect the "Cube" Pickup. This is a prototype demonstration on how progression within the final game will work. The player is required to find the relevant Pickups within the game world to meet the prerequisites for level completion.

### FEEDBACK RECEIVED


- Use Shader Graph (*Shader Graph* - Unity, 2018) to create my projects visual shaders.
- Find an alternate method of having a fixed user interface, as they do not work effectively on virtual reality platforms.
- Develop a virtual reality compatible method of movement.

### ANALYSIS AND RESPONSES

When discussing the desired visual style for the project during the seminar, it was discussed creating a Post-Impressionist (*Post-Impressionism Movement, Artists and Major Works*, 2018) art style using shaders. The feedback received for this is imported shaders can often be limited in terms of personalisation, and that it may not be optimal for the project. It was suggested that Shader Graph is used to create shaders (*Shader Graph* - Unity, 2018).

In response to this feedback Shader Graph (*Shader Graph* - Unity, 2018), will be used to test, and possibly to develop the required shader needed to create the desired visual effect, as well as ensuring it is well optimised.

When presenting the prototype user interface during the seminar, the most prominent piece of feedback received was that the non-diegetic user interface used would not be suitable for VR gameplay. Due to screen space overlays such as user interfaces not being supported in Virtual reality platforms. As the human eye cannot focus on things so close (*User Interfaces for VR* - Unity, 2018). Building upon this feedback the project will now implement a Spatial user interface design which exists in the game's world



space (*User Interfaces for VR* - Unity, 2018). Rather than being fixed on the screen. Such as a readable book containing necessary text, like quest objectives, and pickup alerts.

Finally, the last major piece of feedback received is that the current method of player movement, could cause the users motion sickness. In the current movement mechanic, the players game object moves about the virtual world simulating walking. This type of movement in virtual reality can lead to motion sickness due to the players disparity in ocular stimulation, and physical stimulation (Kidwell, 2018).

Building on this feedback teleportation will be used as the method of player movement. In which the screen will darken when the player is teleporting, to prevent the player from seeing the camera movement. Thus, limiting the possibility of motion sickness.

## GAME DEVELOPMENT DOCUMENT FEEDBACK

For the Game Development Document Feedback seminar I presented version 1.0 of this current document. Which contained much the same content, without the implementation of the document design, and many of the visual aspects of the current document.

### FEEDBACK RECEIVED

- Provide examples, when describing anything visual in the document, such as images of inspiration for art style, so the reader can get a better idea of what to expect
- Justify your decisions and show some constructive self-criticism to show better understanding of decisions you made

### ANALYSIS AND RESPONSES

Prior to presenting this document at the seminar, there we're no examples of visual inspiration for Eardstapa. Which ultimately made it difficult for the reader to interpret the visual ideas and descriptions the document was trying to portray, this was a key issue highlighted in the seminars feedback. In response to this feedback visual examples have since been added to the document, for example Figures 1, 2, and 23 are all images of the visual inspiration behind Eardstapa, or how aspects of the game could look.

The second key piece of feedback received from the seminar was that the document lacked self-reflection, and justification behind the design choices of Eardstapa. This lack of justification made it difficult for readers to understand why the game had been designed the way it has, or what the limitations and benefits that lead to these decisions where. In response to this feedback, the Justification section of the document now explores the reasoning behind Eardstapa's design choices in greater detail; as well as explaining why the games core mechanics where designed in way they are, and the reasoning behind it.



## JUSTIFICATION USING THE UNITY ENGINE

To develop Eardstapa the Unity Engine (Unity Technologies, 2005) will be used. This is because Unity is the perfect engine for intermediate indie developers, due to its extended libraries and packages provided by Unity themselves, rather than leaving developers to hard code things such as Shaders, or Multiplayer.

For example Eardstapa will utilize Unity's Shader Graph tool(Unity Technologies, 2005), to apply shaders, models and create it's post-impressionist style. Shader Graph allows developers to visually develop shaders using drag-and-drop nodes and pipeline tools, without needing to hard code them in the traditional method.

The Unity Engine (Unity Technologies, 2005) also makes it easy for developers to implement scripts in a variety of different powerful programming languages which are common place in the games industry, such as JavaScript and C# allowing programmers to create projects in their favoured language. The Unity Engine also has an easy to use visual inspector which allows developers to access public variables, assign game objects, and append scripts to game objects; making a smooth workflow.


Unity's public asset store is another key reason why Unity is the Engine of choice for Eardstapa's development platform. The Unity asset store (Unity Technologies, 2005) is a publicly accessible market place where users can share and download assets for use within the Unity engine. Many high quality assets can be found on the store often for free download, thus making it easy for developers with little to no modelling experience to create high quality projects with professional models.

## PLATFORM AND TARGET AUDIENCE

Virtual Reality was chosen as the target platform for Eardstapa as the games emphasis on beautiful landscapes, and post-impressionist style can be enjoyed far more in a virtual reality environment, which typically has much more immersion then traditional video game platforms. This is because the player will feel much more in touch with the environment, and their surroundings if they're completely visually stimulated, rather than being distracted by their surrounds, as is common place with traditional setups.

Virtual Reality is a new technology with a market on the rise, as seen in 2016 with a total of £101 million pounds spend on VR hardware alone in the UK, a 23.5% rise from the previous year (Ukie.org.uk, 2018). Ultimately this means that now is the perfect opportunity to release an indie game on a market which is lacking major AAA titles and huge competition, that the more traditional platforms are swarmed with. Giving Eardstapa a larger chance of





being played, and generating sales, as there will be less emphasis on users playing larger titles.

Eardstapa's wide target audience of casual gamers of all ages, and people with an interest in historic fiction, was chosen to ensure that the market for Eardstapa was as unlimited as possible. For example if Eardstapa will filled with violence, or sexual themes then the target market would be limited to users above the age of eighteen. However with its current target audience Eardstapa's users are not limited to any specific age bracket, ultimately ensuring the market for potential sales also remains open.

## REVENUE

The final build of Eardstapa aims to be a final prototype video game, and thus should be capable of being sold on platforms such as Steam. Steam has around 125 million active users, making it by far the largest game market place in the PC gaming industry. Ultimately this means that Steam would be the ideal platform for Eardstapa, to ensure that it's reaching the largest market possible. Steam only takes a cut of 30% (Rock Paper Shotgun, 2018) of every sale on it's platform meaning that every sale that Eardstapa makes would generate 70% revenue, so if Eardstapa was sold at a price of £8 which is reasonable for an indie game whilst still majorly undercutting the price of a AAA title, then £5.6 pounds of revenue will be generated on each sale.

## ART STYLE

Eardstapa's Post-Impressionist inspired art style was chosen to provide an unique spin on traditional photorealistic games. Eardstapa's art style aims to appeal to both users of photorealistic games, and games with an exaggerated art style rather than limiting itself to one dedicated market, and art style.

Eardstapa's art style also aims to be unique to the gaming industry, where most popular games take inspiration from each other, and frequently little to no variation exists between art styles which already exist in popular games. However Eardstapa draws its inspiration not from the games industry, but rather from an influential art movement, and famous painters such as Claude Monet, to create a visual style no other popular game has created.





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