# Aonar

Austin Wolfe

*"Aonar presents a VR storytelling experience which relates to the theme of this year's exhibition in several ways. It plays upon themes of isolation and connection to a rich cultural heritage and way of life."*

ICIDS 2021 Jury

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**Abstract**

The experience *Aonar* was developed to investigate the narrative engagement of storytelling in VR. This work is interactive, and although the story's outcome is not affected by the player's actions, the manner in which the player experiences the plot changes based on what they choose to interact with. This story is based on Scottish folklore, featuring two main characters: a lighthouse keeper, and a selkie (a shapeshifting seal). The VR user in the story represents the main character's sense of loneliness as a physical, albeit translucent, embodiment. Throughout the story the lighthouse keeper is disconnected from this feeling and appears unaware of the player. This fisherman meets a selkie and falls in love, but eventually she has to return to the sea. At the end, the lighthouse keeper finally acknowledges his feelings, inviting the player to sit beside him. This represents a reconnection of the character's ignored feelings to himself, as well as creating a connection from the character to the user. Finally, a third connection is made by the author to the art piece, as the content of the story allowed the author to reconnect with their ancestral origins through research and creation.

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## Introduction

Traditionally, storytelling can offer a method for sharing cultural identity, knowledge, discovering beliefs, strengthening social ties and bringing joy (Richardson et al., 2018). Storytelling is a part of daily lives, whether by being orally told, read, watched, or listened to. These more traditional forms of storytelling have rules in their story structures, like the use of the Hero's Journey (Campbell, 1991; Koentiz, 2018, pp. 107-120) but can also be limited when it comes to creating a sense of presence (feeling physically present in the virtual world), immersion (stimuli that creates the perception f presence), and a deeper connection to the characters. Creating a story for cinematic VR is challenging as it cannot always necessarily follow established narrative structures due to the nature of the media. VR allows the user to act as the camera and explore a virtual world with a sense of presence, this generally breaks the fourth wall, allowing the user to become a part of the story, rather than simply observing it. Additionally, certain techniques filmmakers use to guide and engage the viewer in a story do not apply in VR, as the user has complete control over the camera and where they choose to look. Therefore, with virtual reality the onus is on the creator to create something which is able to engage and connect with the user. With *Aonar*, the users are immersed in a stylized version of ancient Scotland where they discover a narrative retelling of a selkie story.

Selkies, in traditional Scottish and Irish folklore, are seals who are able to transform into beautiful, dark-haired women when they remove their seal skins. This transformation lasts as long as their seal skin is kept on land. However, the selkie woman is always yearning to return to the sea, her true home. This story is loosely based on an amalgamation of traditional Scottish folk tales (Davies, 2017; Ellis, 2008; Muir, 2014; Smith,

2019 & Stephen, 2014) and broken into fourteen scenes. To give the story a more authentic feel, a local Scottish voice over artist narrated the story.

Scottish folklore was chosen as the content for this project for two reasons: it has allowed the personal connection to the author, as they have ancestral ties to the culture; and the topic of folklore was chosen as it appears more malleable to the media of VR. This was based on Propp's Dramatis Personae on the morphology of folklore (1928), which allows more freedom in story structure than other traditional stories. It accomplishes this by allowing the author to choose from 31 fixed consecutive functions to "build" a story. These functions have a list of possible choices to fulfil its meaning. For instance, the first function of absentation (someone leaves or dies) can have one of three possibilities: someone leaves (older generation); someone dies; or someone leaves (younger generation).

## Creation

To create this experience, colour and light were chosen with care to create an immersive and engaging experience. These elements were based on colour theory and the psychological impacts of art. Colour is a powerful tool that can be used to influence mood and emotions. Consequently, psychological techniques using colour (Wilms & Oberfeld, 2018, p.896) were carefully applied throughout the project and were at the forefront of the design process.

An example of this can be seen in the transition of colours from cooler to warmer hues (Fig 1 and Fig 2). This sets the mood of the scene, which involves the changing of seasons, and night and day. Using this helps to give the user a greater sense of presence in the environment, draws their attention, and creates a connection to their surroundings.

Likewise, the use of light was an invalu-

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able asset with the design as light also creates mood, highlights areas of interest, and has an overall affect the user's perception of the virtual world.

To create a deeper connection between the user and the characters, the characters were given a personality based on the Five Factor Model or FFM (McCrae, Gaines, & Wellington, 2012). This created a loose blueprint for how the character would look and act and was designed based on these personality traits. On this scale, the main character was given high scores for openness, conscientiousness and agreeableness, with low scores for extraversion and neuroticism. This meant that the character's personality was curious, dependable, reserved, empathetic, and calm. Translating this to artwork, the physical appearance of the characters were designed on what someone with these characteristics might look like. In this example, someone who is dependable might wear more muted clothing colours such as grey or navy, as opposed to brighter colours.

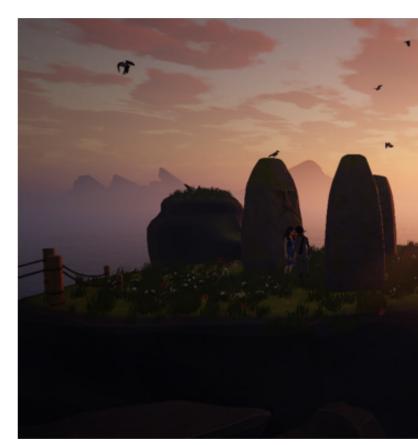To emphasize the personality and identi-

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ty of the character, other assets were created as behavioural residue (Gosling 2008, pp.12-19). An example of such assets were items like a smoking pipe, picture frames, maps, and wine bottles that gave small indications about the characters life, many of which were interactive. For instance, specific picture frames lit up when interacted with, and portrayed images of selkies, indicating the lighthouse keeper's connection to Scottish mythological creatures and foreshadowing the selkie that would be introduced later in the story.

In addition to this, the storyworld was built around the character's attributes and persona. The world itself was created on an island, with the scenes taking place in various locations around it. This was done for several reasons: first, when scene changes occurred, it would lessen the amount of time it took for the user to reorient themselves in the world, since they could see all the other places they had previously been. This assisted in keeping the user immersed in the world and engaged in the story, creating a "mental map". Secondly, it created a

connection between the user and the character, by showing them the extent of the character's world and how he lived his life.

The use of music, audio cues, and highlights were used to focus/gain the users attention and increase immersion. In particular, both ambient and spatial sound were utilized throughout the VR experience as suggested by Bhide, Goins & Giegel (2019) to enhance immersion. The music and narration were ambient with no discernable source. The spatial sound encompassed everything else. This included elements like waves crashing, bird calls, wind, thunder, rain, and whale calls. Each sound had an individual attenuation radius (the falloff of the source) utilizing a natural sound function and also created a connection from the user to the main character. During the study, all the users reacted in some way to the character at this moment: either by moving towards the character, sitting down with him, or looking around to make sure he was

gesturing to them and not something else in the scene. In this moment, the user was no longer an observer of the life of the lighthouse keeper, but rather a part of his life.
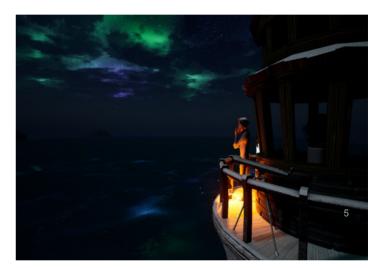
## Story

In the beginning of the story, users are introduced to a fantasy island in Scotland as its own entity by passively viewing the unfolding scene which sets the narrative tone for the rest of the piece, viewing a cliff-side beach as the seasons change. They are then introduced to the main character, the lighthouse keeper, and experience what his daily life entails. The user themselves is represented by a transparent figure. This is to create a disconnection from the character to the user, as if the user is not really there. In addition, the user's transparent figure represents the main character's sense of loneliness, as the user is largely ignored by the main character through

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the majority of the story.

The story continues with the user learning that the lighthouse keeper is lonely, and full of grief, represented by sitting alone on a beach. At this point, most users try to move toward the character, perhaps to offer solace, but he is physically out of reach from the user. It is postulated that this is due to the natural inclination of the user to react with empathy toward the character.

The lighthouse keeper then discovers a selkie, with whom he falls in love. The user then experiences many seasons passing, watching their lives together. However, in the end, the selkie must return to the sea, or she will die on land. A pivotal final scene shows the lighthouse keeper back on the beach, alone again. However, this time, he turns and acknowledges the presence of the user, inviting them to sit beside him. This signifies his reconnection to his feelings of loneliness, i.e. the VR user. Additionally, this moment this moment also created a connection from the

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user to the main character. During the study, all the users reacted in some way to the character at this moment: either by moving towards the character, sitting down with him, or looking around to make sure he was gesturing to them and not something else in the scene. In this moment, the user was no longer an observer of the life of the lighthouse keeper, but rather a part of his life.

## Research, Outcome, and Future Direction

This project was created as a pilot project towards exploring the opportunities presented by storytelling and narrative engagement in interactive cinematic VR experiences. *Aonar* was

created to investigate these opportunities and boundaries of storytelling towards the aim of developing a framework for creating and monitoring engagement for VR. A framework would allow future VR developers, storytellers, and researchers to make blueprints on how to create engagement and keep users engaged in stories with this media.
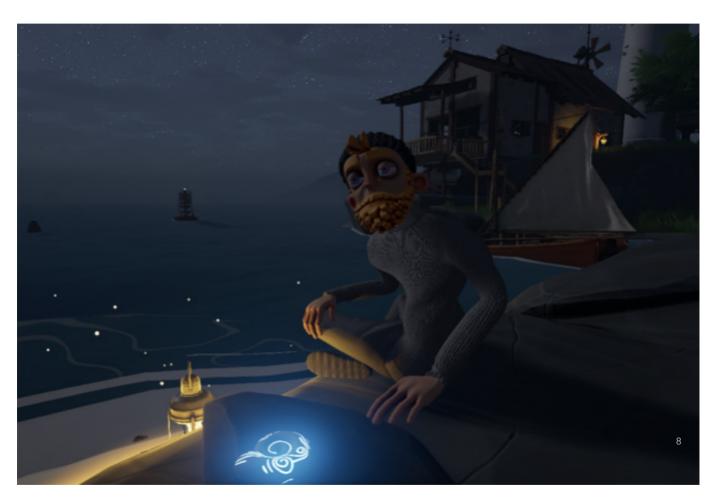
A pilot study was conducted on *Aonar* using an accumulation of standardized questionnaires to test various aspects of narrative engagement, such as the narrative engagement scale (Busselle & Bilandzic, 2009) along with the recording of observational data during the running of the program.

Results of the pilot study trials of *Aonar* have been since compiled and have now informed the design and writing of a new story. The resulting project will serve as a sister story to *Aonar*, with the content still focused on Scottish folklore and using the same voice over artist. It will ultimately be packaged together, so users may choose either story to experience. It is the hope that creating more cinematic storytelling experiences with this framework will increase the engagement of users in storytelling. Specifically for this project, it is also hoped that it will increase user interest in Scottish folklore, as it is the context for these stories.

## Note from the Creator

Creating this project allowed me to explore Scottish folktales, legends and mythologies in a creative way. The process of adapting traditional tales of Scottish folklore for a modern audience was both enjoyable and thought provoking. This prospect of expanding the notion of traditional storytelling to multisensory and immersive media creates limitless opportunities for future creators. My hope is that by developing the concept of narrative engagement and storytelling in a modern and virtual space we will be able to encourage more stories and tales to be told in an authentic and compelling way, enabling more people to become engaged in the traditional tales of their own cultures.

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## Images

1. Opening shot
2. Opening shot with sunrise
3. Stone giant island
4. The lighthouse keeper's home
5. View from the lighthouse
6. Interactive items in the lighthouse keeper's home
7. The lighthouse keeper
8. Invitation from the lighthouse keeper

## Credits

Created by Austin Wolfe

Narrated by Fiona McNiell

**Austin Wolfe** is a Visual Developer/ VR Researcher located in Scotland with a BA in Media Arts and Animation, Msc in Serious Games and Virtual Reality. He is currently pursuing a PhD in interactive storytelling in VR.

**Medium:** Videogame
**Year of Release:** 2021
**Link to the artwork:** http://yetanotherportfolio.fr/frame/ICIDS/
**Artists Websites:** http://www.laurelinechiapello.com
http://yetanotherportfolio.fr