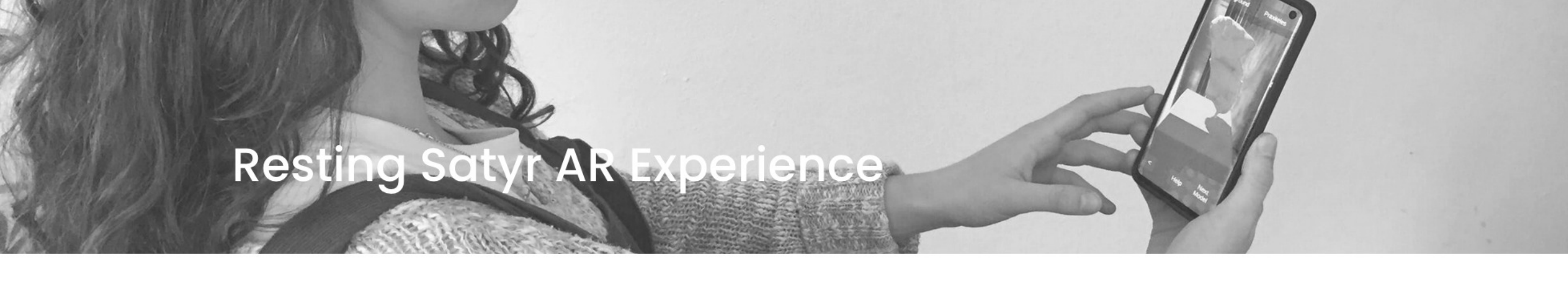


Resting Satyr AR Experience

Case Study Details

My role

I acted as both designer and developer on this project.

Tools

Unity AR Foundations, Blender, Photoshop, Premier

Sponsor

Eskenazi Museum of Art

Methods

Behavioral prototyping, AB testing, Non-participant observation

Timeline

February '20 - April '20

Design Challenge

Create an augmented reality experience that will inform museum patrons of the historical significance of the Eskenazi Resting Satyr.

Final Proposal

Story Time

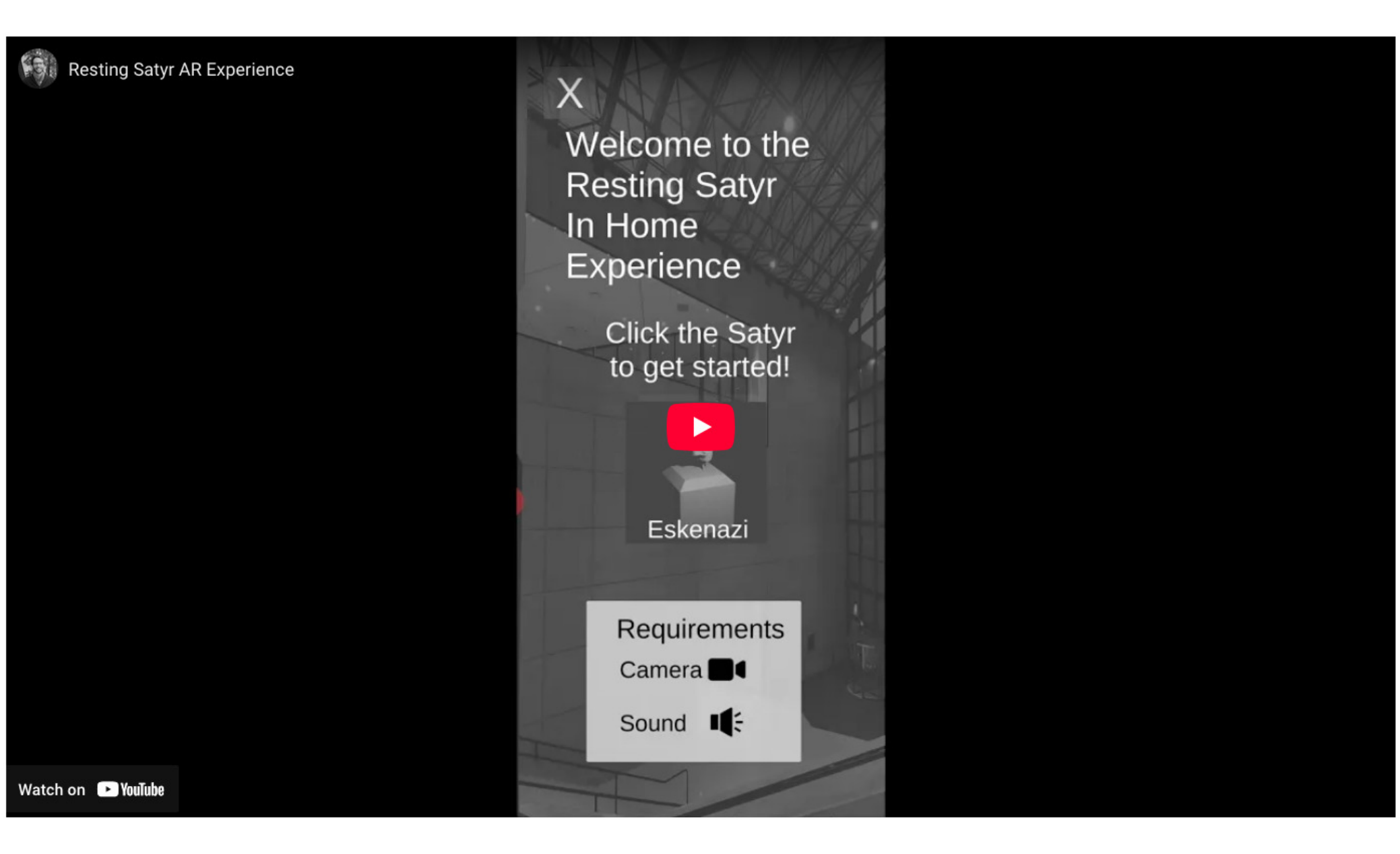
While stuck at home due to the pandemic, Amanda misses being able to go her favorite art museum.

So she decides to go to the Eskenazi's online gallery and view their extensive digital collection. To her surprise she notices that there is a new digital experiences section on the online gallery home page. The Resting Satyr AR Experience catches her eye so she clicks on the link next to the description.

A QR code appears on her screen along with a prompt encouraging her to bring out here smartphone and point it at the code. She doesn't quite know what to expect but she points her phone camera at the code and is surprised to see an application installing on her phone.

She is welcomed into the app and shown how to place models in AR space. Once placed she recognizes the statue for one that she has walked by many times before. Then she is intrduced to a few statues she has never seen and how they are all related to each other.

Amanda is thoroughly pleased with the historical facts she learned and has a much greater sense of appreciation for a statue that she had ignored in the past. Plus she is excited to tell her grandchildren about how she used an Augmented Reality app!


Resting Satyr AR Experience
X
Welcome to the Resting Satyr In Home Experience
Click the Satyr to get started!
Eskenazi
Requirements
Camera
Sound
Watch on YouTube

If you are interested in trying it out for yourself feel free to click the link or scan the QR code below.

Android

In Person Research

History Review

During the renovation of the museum the Satyr also got a good clean.

Since my professor had studied the Resting Satyr and my sponsor for the project Juliet was the curator of the Ancient Art gallery. I started out by getting to know as much as I could about the Satyr from them and their writings.

They were also kind enough to supply me with the information that I used to create the audio tour I will explain in the development section.

Reflection

Before this project I had not spent any time studying art history or museum curation. So it was an interesting exercise to evaluate how each gallery was designed to tell a story. How each piece was chosen from a vast library of artifacts and placed with purpose to enforce the larger narrative.

I think the most interesting design constraint of the ancient art gallery at the Eskenazi is that there is no defined path for entry or exit. Thus, any story I created would have to make sense no matter where someone started it or in which direction they were reading.

Participant Observation

The next task was to go to the museum and observe how people interacted with the Satyr and the space around it.

So I decided to join a tour and see what the museum guides had to say about the Satyr and how people would engage with the piece. I noticed right away that most people did not spend much time looking at the Satyr, they spent most of their time looking at complete pieces in the cases.

Reflection

This was not surprising because as you can see the Satyr does not have a lot to look at on the surface. It is missing almost all of the things that make it human and therefore it is hard for people to relate to it.

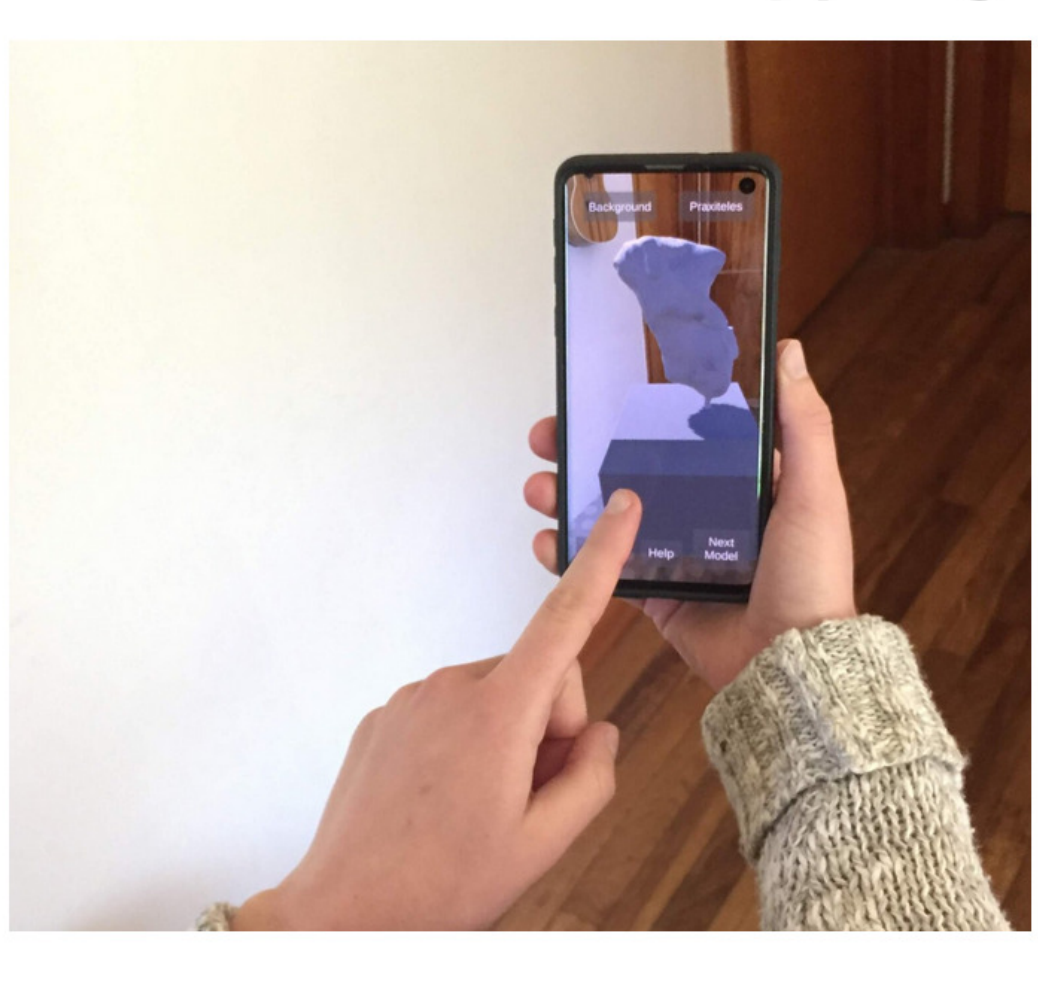
However, that particular fact is what made me so eager to choose this project in the first place. The Satyr's missing appendages I saw as opportunities because their absence meant that I could create their replacement and what better way to replace them than with augmented eality. It is an extra data layer over an existing physical artifact. So I can add delight and educational information while not obscuring the piece of art or removing it from it's carefully designed environment.

Remote Research

I was in Steamboat Springs Colorado after having just driven 20 hours when I found out that not only is the ski resort closed, but so was my university and the museum. So I would no longer be able to design for an in museum experience.

Thus began the pivot towards an in home educational experience...

Behavioral Prototyping



"I really like that, even though we can't go to the museum we can bring it to us!"

— Law Student

Participants enjoyed the ability to see the pieces of art outside of the normal museum setting. Plus now that we were all required to stay at home any non-Netflix entertainment was met with enthusiasm.

Takeaways

Simple is better when it comes to navigation buttons

Guided story line is preferred over free exploration

Adjusting to AR can be difficult for first time users

Competitive Analysis

MASP, São Paulo VR Gallery Tour

To get ideas about how to deliver the experience in home I decided to do some research about how other museums have created digital artifacts that can be viewed from anywhere.

One platform that I found to have a wealth of digital, VR and AR museum artifacts was Google Arts & Culture.

There were two main types of experiences that I found. The first and most popular was a simple adaptation of the physical gallery into a digital form, such as the Sao Paulo VR gallery tour on the left. However, the ones that I was drawn to were the ones that created an all new experience. Something that the physical museum could not offer.

Takeaways

Successful virtual experiences

Add to reality, they don't just mimic it.

Maintain an air of professionalism found in their galleries.

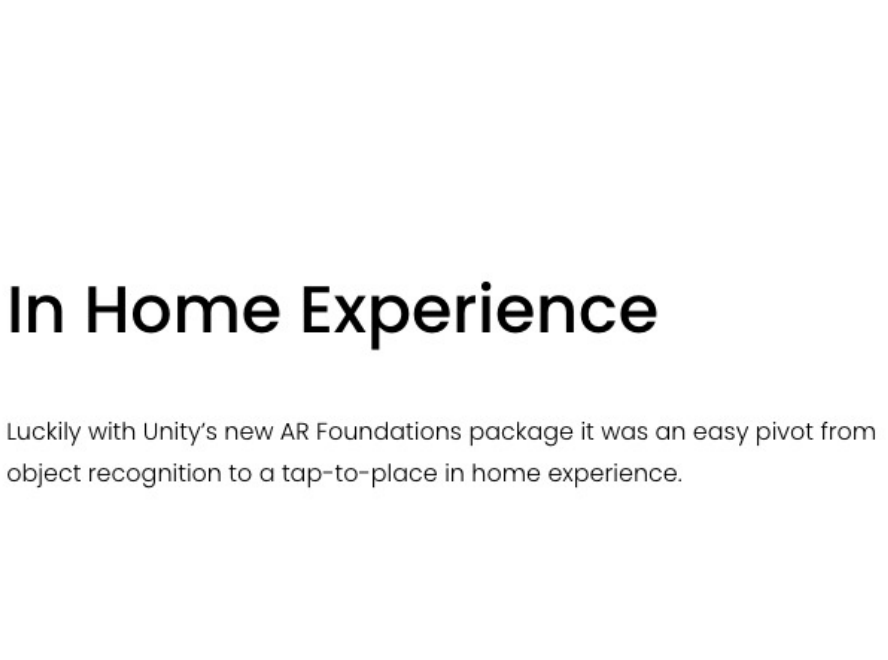
Stay true to their educational or prophetic goals.

Development

Learning Unity

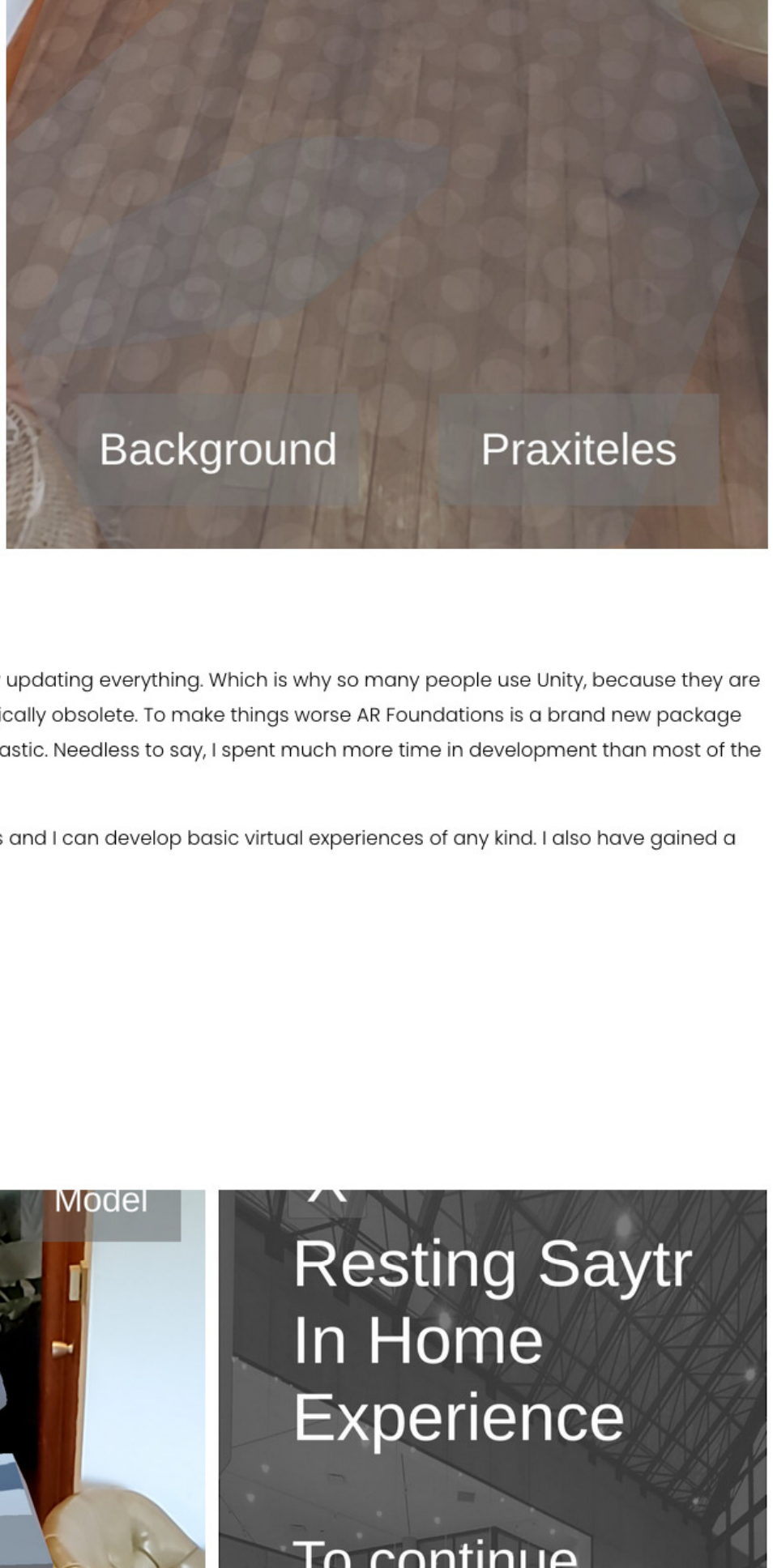
Reasoning

I decided to use Unity even though the rest of my class was using a software called Zapworks. I chose to do this for a few reasons. The first being I wanted to be able to use the skills that I learned during this project to be something that I can build on and I know that Unity is industry standard for game and XR development. However, I also wanted to create a better user experience. To launch an experience in Zapworks you first have to download their app and there are few things that I as a user hate more than having to download an app that I know I will probably only use once.



In person design

Originally I planned to create a permanent installation using the facade of a coin operated tower viewer. Where people would be able to view the AR overlay through an iPad or modified Hololens hidden in the viewer. It would be powered by Unity's object recognition and augmented reality engines.



In Home Experience

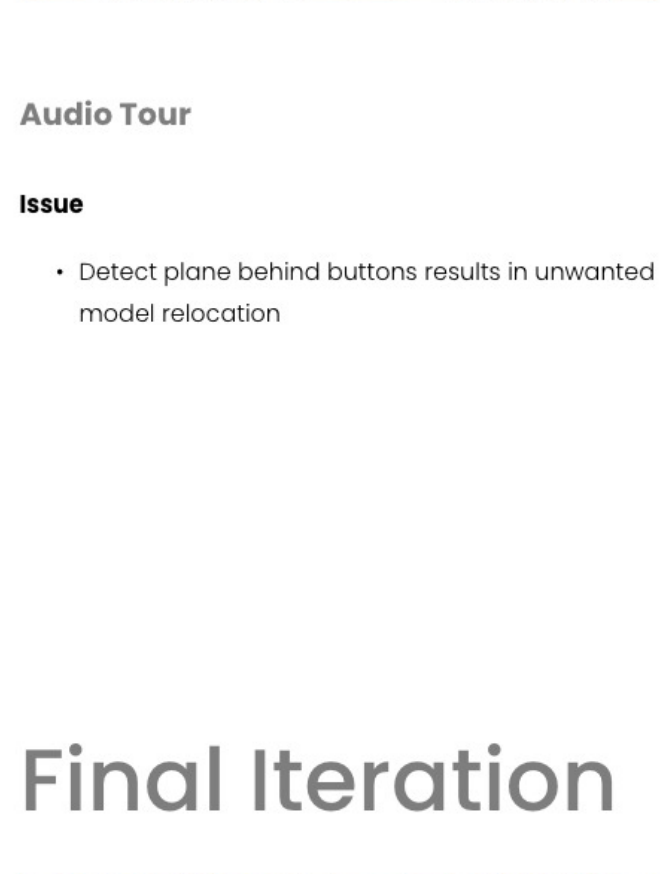
Luckily with Unity's new AR Foundations package it was an easy pivot from object recognition to a tap-to-place in home experience.

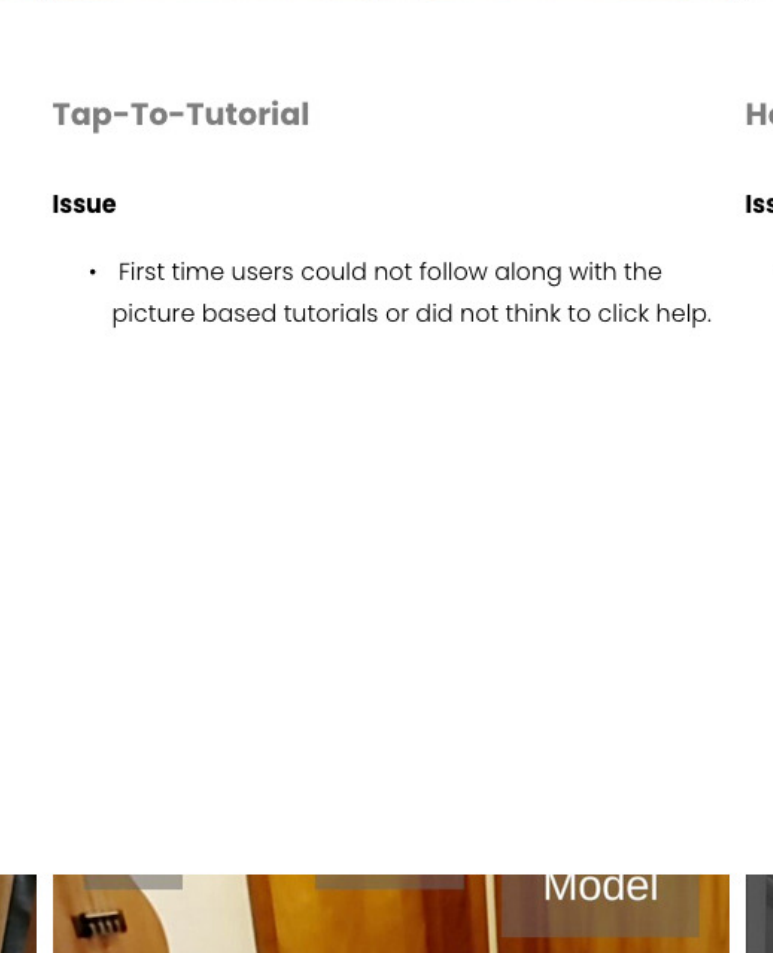
Reflection

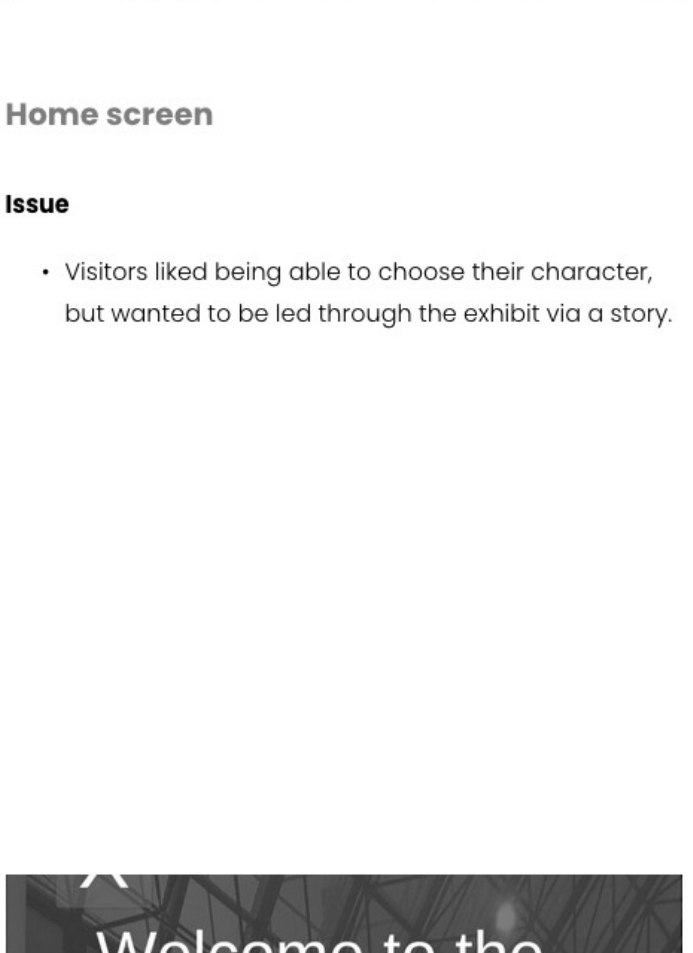
As anyone who has taught themselves how to develop in Unity can tell you, they are constantly updating everything. Which is why so many people use Unity, because they are constantly improving usability. However, that also means every tutorial older than a year is basically obsolete. To make things worse AR Foundations is a brand new package (2018) and Unity is investing heavily in developing it, so updates are even more frequent and drastic. Needless to say, I spent much more time in development than most of the other teams in my class.

I feel that it was worth it because now I have a good base of understanding for how Unity works and I can develop basic virtual experiences of any kind. I also have gained a decent grasp on C# scripting, which I have been wanting to work on for a while now.

First Working Iteration






X
Resting Saytr In Home Experience
To continue choose a character below
Choose Your Character!
Eskenazi
Montemartir
Glypothek

Audio Tour

Issue

- Detect plane behind buttons results in unwanted model relocation

Tap-To-Tutorial

Issue

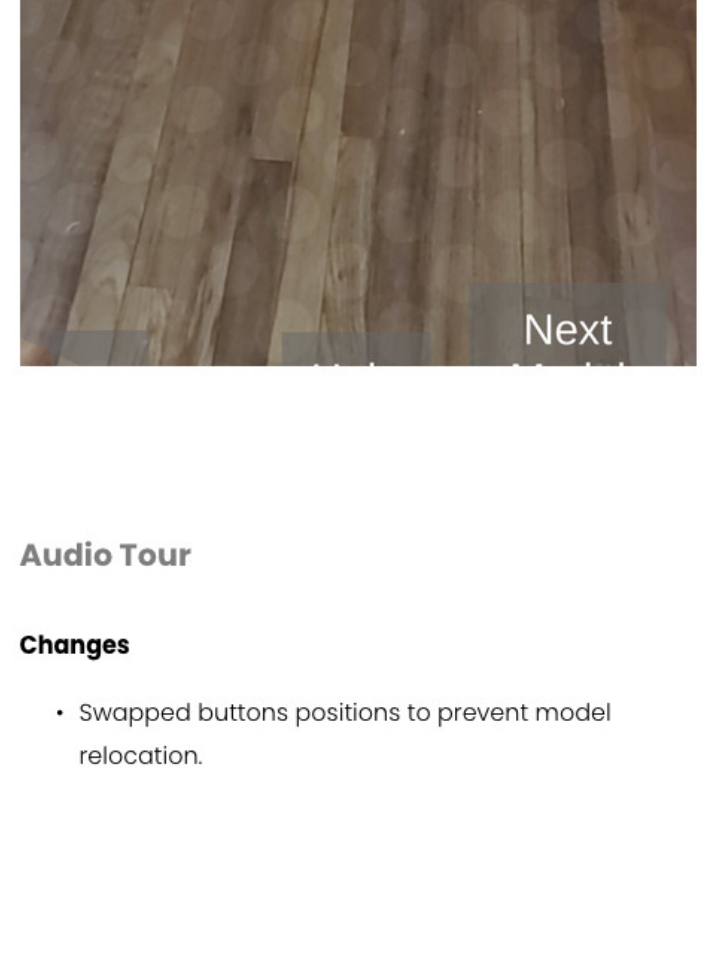
- First time users could not follow along with the picture based tutorials or did not think to click help.

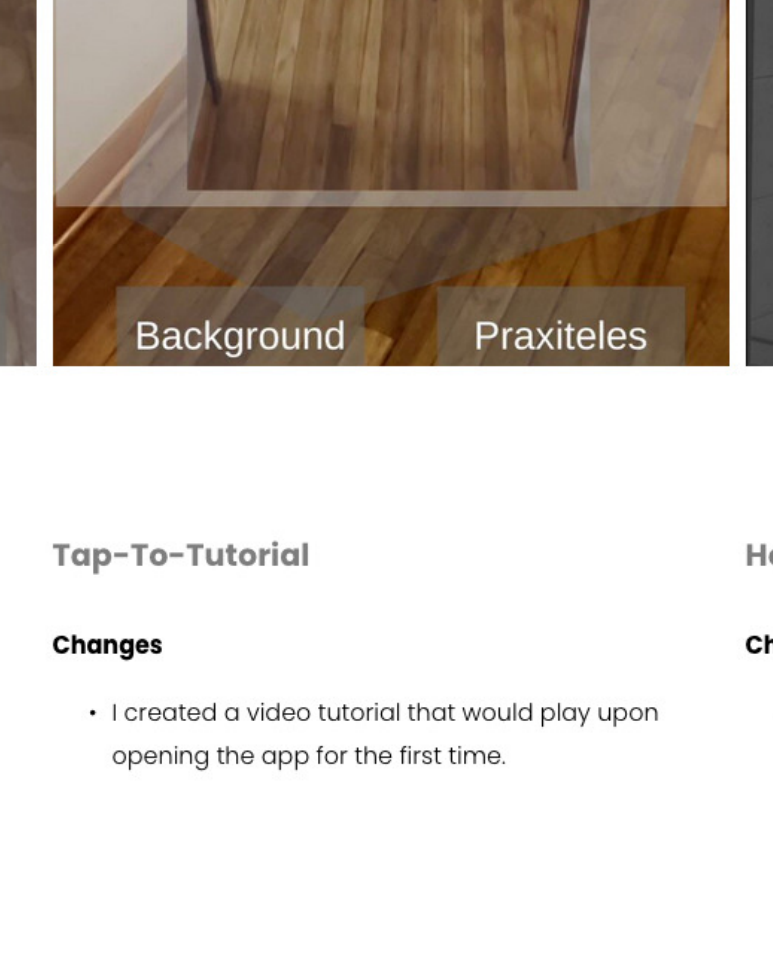
Home screen

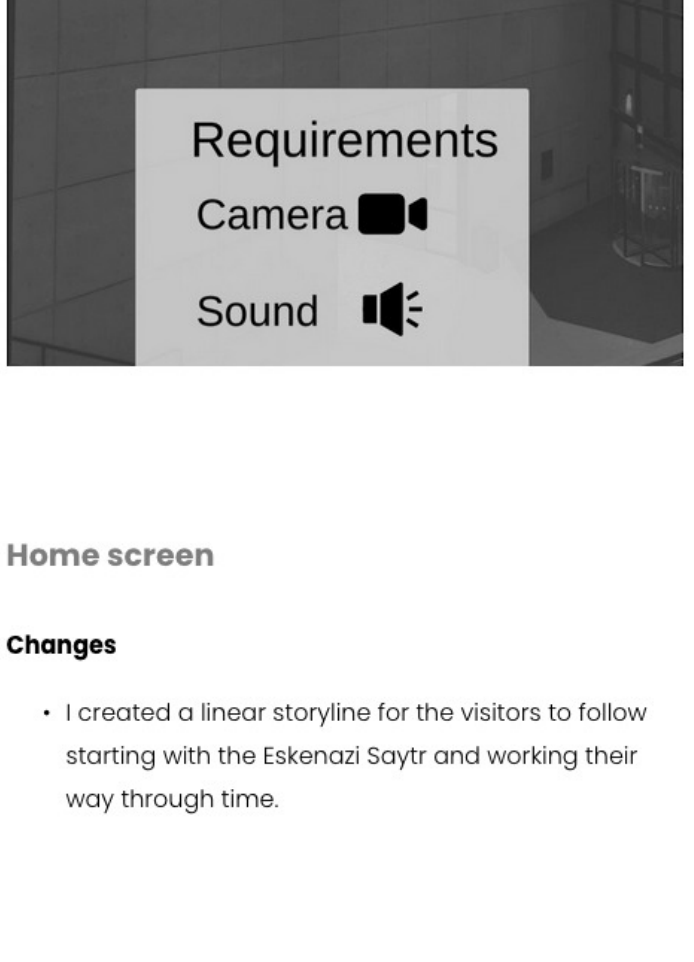
Issue

- Visitors liked being able to choose their character, but wanted to be led through the exhibit via a story.

Final Iteration






X
Welcome to the Resting Satyr In Home Experience
Click the Satyr to get started!
Eskenazi
Requirements
Camera
Sound

Audio Tour

Changes

- Swapped buttons positions to prevent model relocation.

Tap-To-Tutorial

Changes

- I created a video tutorial that would play upon opening the app for the first time.

Home screen

Changes

- I created a linear storyline for the visitors to follow starting with the Eskenazi Saytr and working their way through time.

Reflection

Overall I am pleased with the way the experience turned out, it is by no means perfect. However, I think that it ticks all of the boxes that I determined during my competitive analysis make a successful digital experience.

It brings not only pieces from the Eskenazi into your home, but pieces from around the world.

It's appearance and presentation fits with the other exhibits in the Eskenazi.

Most importantly it teaches people the value of the Satyr and copies like it.

Next Steps

Immediate Implementation

I was chosen as one of the top projects in the class to present to the director of the Eskenazi Museum. During that meeting the director mentioned that our projects could be exactly what the museum needs now and in the future to help people who cannot make it to the museum to experience their collections. He suggested that they may either add some of our projects to the website or send out a link in one of their monthly emails.

Future Use

Our direct sponsor in the ancient art gallery has suggested that she would also like to bring some of our projects into the physical gallery once it reopens.

So I may yet get the chance to implement my coin operated view finder design.