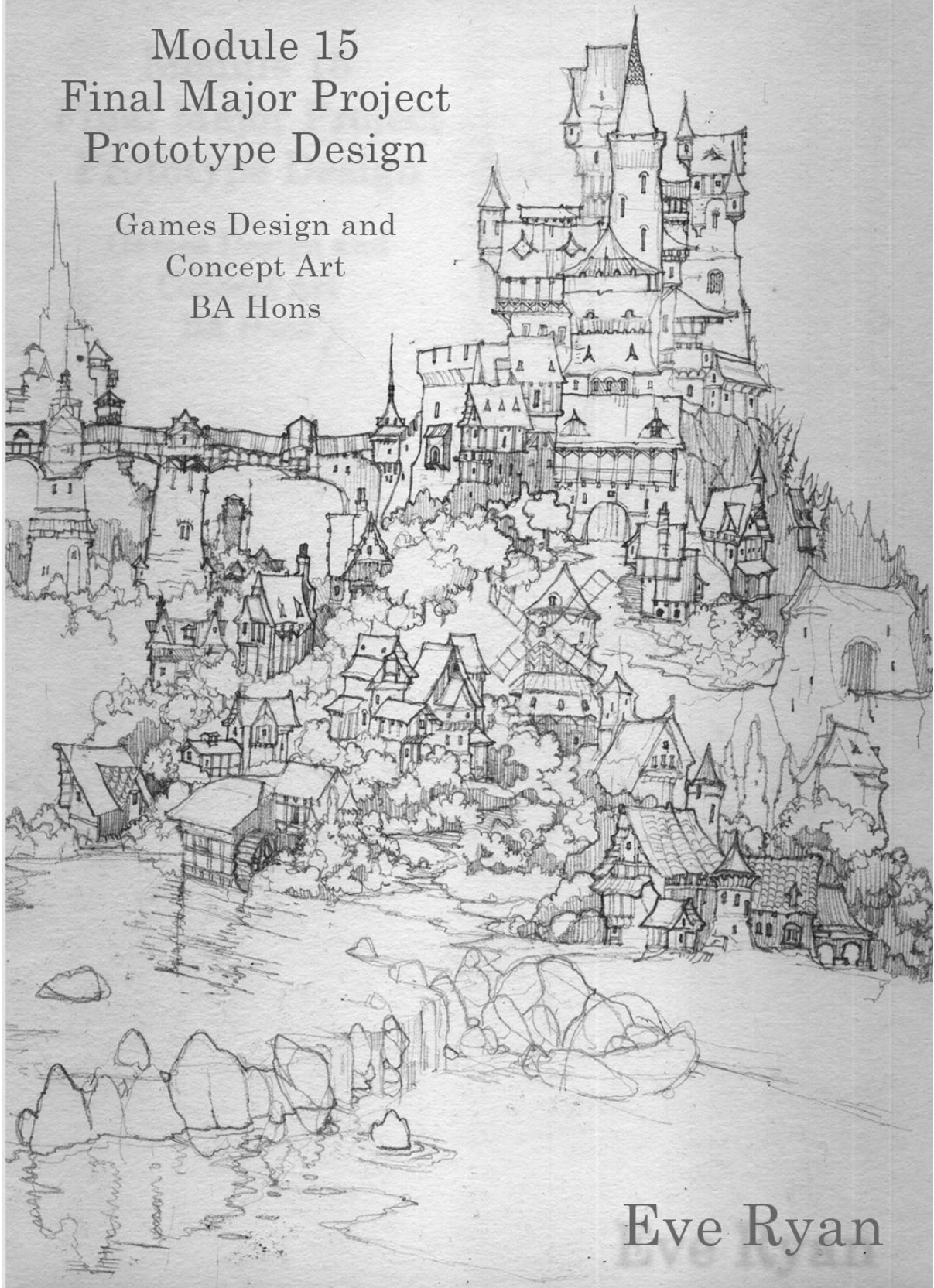


Module 15
Final Major Project
Prototype Design

Games Design and
Concept Art
BA Hons



Eve Ryan

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Project Proposal

Within this brief, I have been tasked with the focus of developing all of my skills to the highest level possible. I will use my critical thinking, research, time management and communication skills to complete a prototype design of my choice. Throughout this project, I will be using peer review and previous abilities to produce a large end of year project which can be used in my personal portfolio.

There are different pathways in which I could academically venture. Throughout this course, I have developed skills within the following:

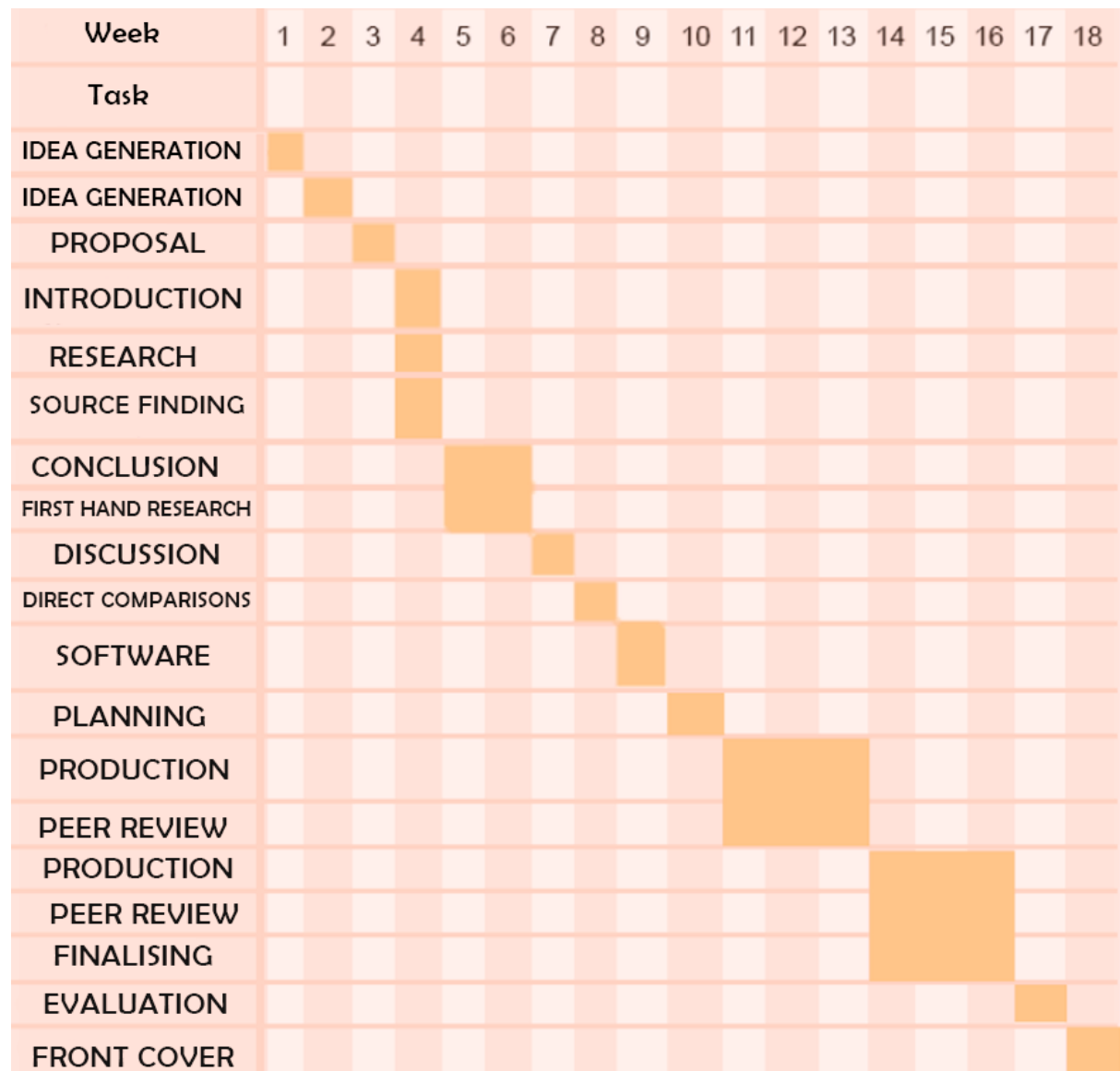
- Game Development (UE4)
- Environment Building
- Texturing Assets and Environments (Substance Painter - Adobe)
- 3D Modelling (Maya and ZBrush)
- Concept Art
- UX and UI

All of these are skills I would want to put together to create a mass project of my own, however due to the time constraints of this project, it is beyond the scope of this brief to produce an outcome of this scale. I will therefore thoughtfully narrow down my options into which aspect of game design I enjoy the most, as well as which aspect would challenge myself the most.

As this is the final brief for my entire degree. I have chosen to follow the route of game design over the concept art route. I believe that following the path of texturing and environment building will be the best route to follow as to achieve the best of my ability. More specifically, these skills will be used to recreate an existing section in an old, popular game environment. Choosing this pathway will improve my skills as a game developer, as I will build upon my environment building skills and have to follow critical feedback from peers and fans of the game I am recreating, with some more feedback possibly from game developers. I believe it will make me more employable as it will show my great time management, planning skills, creativity as well as my enthusiasm for game development. I will be using Unreal Engine 4, Maya, Zbrush and Substance Painter to complete my project as these are all software with which I am familiar and want to improve. I am aware of the cutting-edge theme of my project as I think demonstrating that I can turn what is a low poly, poor resolution town into a beautiful redone high-quality town will work in my favour as to demonstrate that I have a clear eye for game development. I hope to learn more about feedback and its importance of it, and why game developers are not updating the old environments in popular MMORPGs even though a large portion of their demographic demands change. I want to show the developers the importance of keeping all of their games up to date for the user experience as well as the overall profits of the game being impacted.

The environment I will be remodelling is a district in Stormwind City in the game World of Warcraft (2004). This is because the main hub for one faction of players is this city, and it is extremely outdated compared to other parts of the game. Many cities have been redone since which are incomparable to Stormwind as the quality of the new cities and features are much more professional and thought through (World of Warcraft 2018). Many players in the community in World of Warcraft have brought up the lack of up-to-date graphics in this city, which is a section in this project I will discuss further and break down. There is a clear demand amongst the community for an update and the company that owns World of Warcraft (2018), known as Blizzard Entertainment (2022), has yet to listen. I intend to redo a portion of the city to demonstrate how great the game could look with updated textures and a remap of some of the assets. A lot of the lights are overexposed, the meshes have a lot of obvious collisions errors and the buildings look very goofy and animated. Leaving the main hub in this state is not good for the game, as new players who purchase the game in 2022 will be met with graphics that were standard in 2004 when the game was released (World of Warcraft, 2004). This

potentially drives away a new audience, as well as returning players. Blizzard (2022) released a 'Classic' version of the game, to bring nostalgia to the old audience, however, the city looks the same in both games. The retail version should be updated to newer graphics. Due to new games being released every year, and as technology is advancing rapidly, the place holder for poorly textured games is becoming smaller and smaller. No other popular MMORPGs have graphics so poor that have not been updated, in realms which still drive traffic especially. Some players have even taken it upon themselves to construct private server in the public test realm of World of Warcraft, to add existing assets into older parts of the game, such as cities named Booty Bay and Gilneas. These cities are too older parts of the game, but do not have as much traffic as the main capital city named Stormwind.



This Gantt chart which I produced will be followed accordingly as to achieve the best possible planning. Planning is of extreme importance with a large-scale build, as well as the research and preparations which must be done before hand. Therefore, a time slot allocated weekly is perfect to reference as I plan along.

1: Investigation into the Audience's Opinion

1.1: Introduction

There are many opinions of the archaic Stormwind City, when deep diving online to research the audience's opinion. This section of the brief intends to highlight the most popular opinion, as well as compare arguments for and against what is good and bad about Stormwind City. The official Blizzard forum (the company's website which made World of Warcraft) will be used to search for contemporary opinions from those in the fanbase directly. Websites such as reddit will also be used to establish the opinion from those who played the game.

1.2: Reddit Forum

This redditor posted 17 images criticising the poorly textured sections and assets of Stormwind City (Reddit, 2014). The post was made in 2014, and the City has not been updated since. Almost 1000 other redditors liked the post, and there are over 300 replies from fans, or former players expressing their opinion.

One redditor exclaimed 'I know it's almost impossible now, but I would love to see the original zone assets updated to the current model standards' (Reddit, 2014). Another redditor replied directly to this comment, saying 'they probably will be updated in the near future, if Blizzard thinks WoW will last till at least 2024 then it needs some texture upgrade's, and that's also plenty of time to do it.' (Reddit, 2014). Continuing further down the thread, another redditor replied to this, expressing that they would like 'an entire expansion based around updating the original assets' (Reddit, 2014). Another user expressed that 'It'll take some time but hopefully they'll deliver' (Reddit, 2014).

These opinions suggest the idea that the fanbase would want the assets to be updated. The opinions from the fans support the idea that updating a game's old assets and environment would be a great development in WoW, and that the idea should indeed be considered by game developers. One user insinuated that they would purchase an expansion just to see the assets updated. This supports the final major project ideas that game developers should care about updating certain parts of the game, as it would provide a great UX for the player audience.

However, not all players agreed. One user wrote a lengthy statement under the initial post of the poor textured and placed assets (Reddit, 2014), saying:

'Guys, we have this game with 7 million subscriptions and \$80m from microtransactions every month. Let's drop it and make something new. Let's spend 2 years developing an engine that would fit our needs and be capable of supporting all systems that we already have in place. Then let's hire hundreds of artists to make all existing assets from scratch, except high-poly - give them 2 years. Then let's hire a hundred programmers to make them work in our new framework. Then let's hire 2 hundred testers to test everything we've already tested during countless betas, but it requires

testing again due to the new engine. And at the end of the day loyal long-term players who have been using mid-tier laptops to play our game won't be able to get a tolerable framerate. Instead, we'll get a few guys that will stick with the game for 2 months to check out graphics. So summarising, let's abandon everything we have for a slight chance of getting new players in 7 years. Quality idea, NATURAL PROGRESSION, get it done.'

Though this comment does state a lot of truth in that due to optimisation for players who do not have high end personal computers, the idea of making all the assets and textures heavy may not be a good idea. Though, the user comments about hiring hundreds of different developers, artists, and modellers to produce new assets for SC. This wouldn't be entirely true, as only a small team would be required to produce a small asset group and to build the new environment. During this project, I intend to demonstrate how the environment can be rebuilt to a high standard in not a long period of time and demonstrate how the audience would respond well to it. Another argument against this user's statement, is that Skyrim (The Elder Scrolls V: Skyrim, 2018) has a team of modellers who continue to update their assets regularly, which can be implemented into the game. Blizzard could hire a small team that slowly updated models for old world content, and implement 'minor graphical updates monthly, one zone at a time'. Another redditor added, 'they could prioritise high traffic areas like the cities first.

In regard to the user experience side of this reddit post, it was important to analyse the player's thoughts which directly related to the poor textures shown in the image series posted into the forum. One redditor said regarding the SC clock tower that 'It's weird how they have a low-resolution texture with the models behind it. It looks strange. Also, if you look at the other sides of the tower, the clock texture is mirrored, so they're at different times.' As WoW is an MMORPG, RP stands for 'role play', immersion is paramount when it comes to game design. When a clock is at the wrong time, and textured poorly, this really brings the players out of the world. Continuing the theme of bad immersion in a role-playing game, another redditor pointed out the fact that 'some trees in SW literally grow out of the roofs of buildings.' Which ruins the realism of the game.

In regard to the financial problems this could cause for potential players, one user explained how the lack of update could drive players away. The redditor said:

Man, that pile of rope says it all. My biggest disappointment after the 6* patch was when I started a new nelf to check out the new model art and realised how utterly horrid the old starting zone art *still is*. I guess there's nothing they can do about that stuff, but it's still going to give new players a very bad view of WoW. I think it might be a good idea to just give folks the option to skip those old starting zones and jump to level 10 in the main cities.

When delving deeper into this statement, if a new player was to purchase the game and enter the starting zone, it could potentially drive away new players, and inevitably income, for Blizzard. It begs

the question as to why would a new player commit to a game when the graphics appear to be from 2004, and why have the game developers at Blizzard not considered this?

In an attempt to answer this question, Blizzard did introduce a new starting zone from levels 1 through to 10, when the player would usually be leaving Stormwind City. However, there is still an option in which the player is met with a choice of where they want to level, in Elwynn Forest (where SW is located) or in the new zone. The new player could easily choose the old zone, and assume the other zone was just as low quality, much like the rest of the levelling zones the player would face when leaving the new zone regardless. Zones such as Westlands, Redridge and Darkshire which neighbour Elwynn Forest are also old graphics. Therefore, setting a good impression with the new starting zone is redundant for the user experience, as the user would be met with disappointment right after.

1.3: Blizzard Forum

As opposed to the reddit forum from 2014, this Blizzard forum dates to 2019. Most of these users are diehard fans of the game as to take the time to actively contribute to the Blizzard forums, therefore their opinion is paramount in this brief, as well as to be heard by Blizzard. The forum has 61 replies and over 2000 views (Blizzard, 2019).

In the opening statement made by player Olldave (Blizzard, 2019), they express:

'I've been noticing how horrible Stormwind looks. Its textures are archaic. When I go to any of the new towns it just reminds me of how bad it looks. I think anyone would love to see an updated Stormwind with high poly structures, and better textures. Maybe even add some more life to our beloved MAIN capital.'

And update the trees in Elwynn Forest, and Goldshire; add life to it. There's also still a good handful of places that just don't make sense. Like multiple intersecting corners/walls forming holes that are just covered up by invisible walls and are nonsensical if you take a second to look, which isn't unreasonable since we have been able to fly since Cata. They literally shoved some tree leaves over one of the holes' (Blizzard, 2019).

This user puts a lot of emphasis on the word 'life' which would insinuate that they find a lack of immersion within the game. Game developers should want their games to be full of life, and make the player feel as though they are a part of another world, especially in a fantasy roleplaying game such as WoW. The user also emphasises how the city is the main capital, therefore even if the newer parts of the game are not located at this section, it still is an integral part of the game where player traffic is busy of any level.

There are other cities which are updated which will be discussed later in the project, however one of these new capital cities is called Boralus. One user, Vaenaru, exclaims how they find it hard to roleplay in Boralus due to the 'heavy shading' and that they have 'always liked the aesthetic of Stormwind anyway' and that an update would be grand (Blizzard, 2019). This demonstrates that even though a new area was well received by the user, they still would like to see the other major city adhere to higher standards with an update for user experience purposes.

Another comparison against Boralus, which user Vexander points out, is that Stormwind was described as the most magnificent human city, and that it seemed to continue endlessly. Boralus, in the game, however, is a lot larger than Stormwind is. The user suggests that expanding Stormwind couldn't be expanded; they could 'add certain additions at this point'. The user continues to point out

places in Stormwind where dead space could be utilised. The same user also explains how even though some parts of Stormwind are newly made, not updated, such as a grave site and the new Embassy within the game, this 'really makes the older parts look extremely dated' (Blizzard, 2019). This is an extremely important observation, and it puts emphasis on how it is important to keep not just some parts of the game updated, but all of it. If not the whole game, at least zone by zone, not small sections of each zone .

A user named Daswings disagreed with the initial forum statement, exclaiming that they shouldn't update SW due to the nostalgia factor (Blizzard, 2019). However, player Fliktarg replies and expresses how 'realistically they just need to update the textures'. Insinuating that a revamp would not be necessary, just some minor texture updates to bring the game out of 2004 (Blizzard, 2019).

1.4: Conclusion

To conclude the investigation into the audience's opinions on whether an update to Stormwind City would be beneficial for Blizzard, this research has concluded it would be. Financially, new players would be wanting to play the game if from the first impression of WoW the game looked good. The existing players would appreciate the main hub for one of the factions being up to date, increasing user experience. As well as the overall immersion being better for those who wish to play the roleplaying side of the game as intended.

2: Stormwind City: An Investigation

2.1: Introduction

In this section of the project the focus will be on screenshots directly from SW, proving how old the textures are and why and how they could be fixed. To do this, I opened the game and flew around the city on a character, then used the snipping tool to grab images of the poor textures and assets. This was not hard to achieve, as most of the city looked very old.

2.2: Bad Assets and Textures



(World of Warcraft, 2004)

This is an example which was mentioned earlier by one of the Redditors (Reddit, 2019). The texture within the clock tower has been lazily mirrored by developers, showing two different times of the day to those in the city. This would be easily fixable with one simple texture map of good or bad quality.



Warcraft, 2004)

(World of

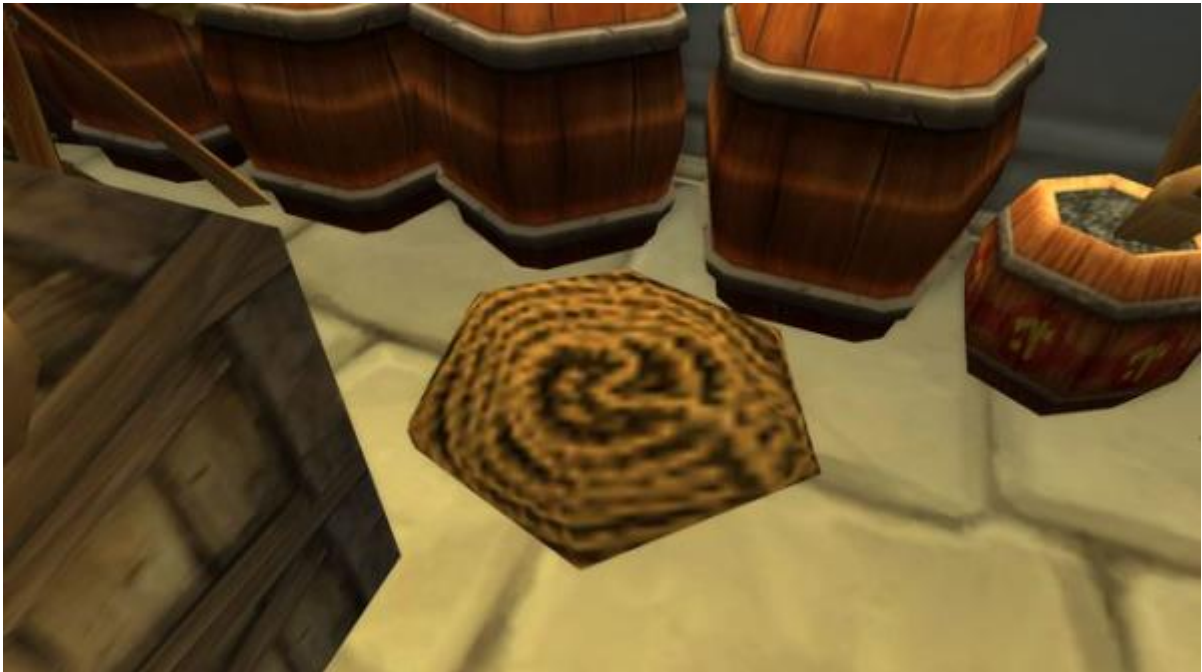
There are a few things wrong with this sign post. This sign post has no typography written on it, which does not make any sense. The textures of the wood, and the metal arrow are extremely distorted, as the UV map of the assets is not well formatted. To improve this, text could be added to the sign, expressing what is in the direction of the arrow, as well as the UV map and textures being revised.



(World of Warcraft, 2004)

The fireplace in this image lacks a lot of realism, and looks extremely poor. The logs are in the shape of polygons, and are not cylindrical which would make more sense for a low poly log. Though the log texture itself is not too bad, the four separate particle effects are poorly placed, even though the actual flames do not look terrible. The floor of the fireplace and surrounding brick look extremely low quality

and warped much like the sign post, and could easily be fixed. Developers in WoW did develop a new fireplace, so it makes not a lot of sense that they wouldn't replace all fireplaces with the new model.



(World of Warcraft, 2004)

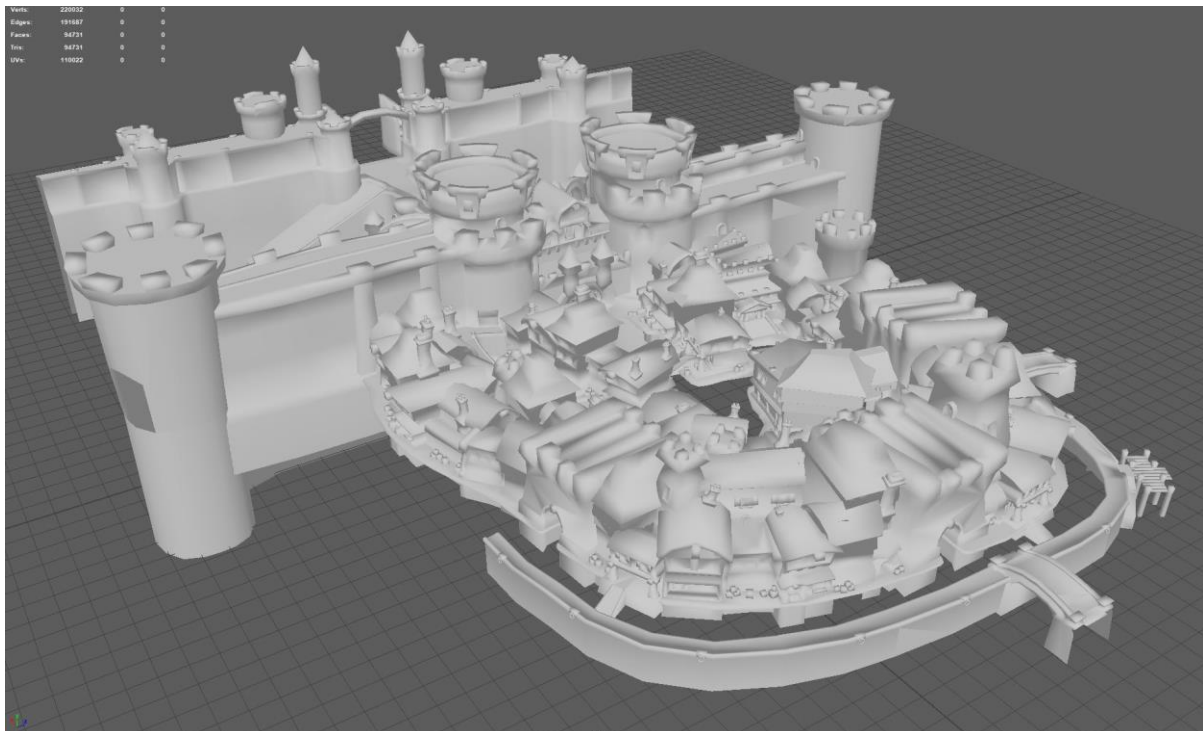
There is a lot to unpack in this screenshot. The rope, barrels, floor and crate are all individually bad however when put together demonstrate the overall theme of the city. The rope texture is lazily placed, and the shape is not true to that of a rope. It appears as though textures were placed and made for the game newly over existing shapes already modelled. Small assets like these should be replaced, and the textures should be revised. There is no place in 2022 for graphics like these.



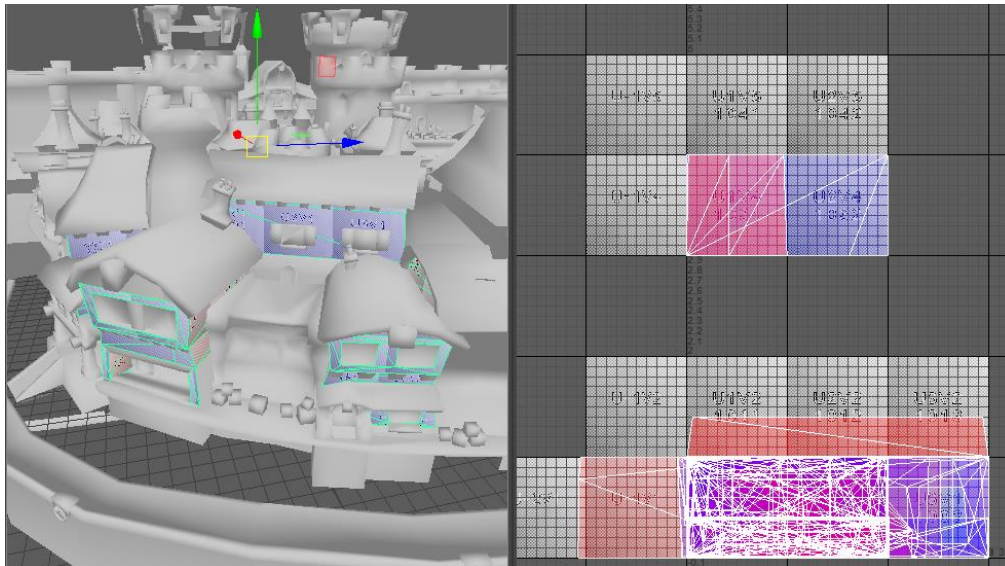
(World of Warcraft, 2004)

Here is an example of one of the windows and walls within Stormwind City. Everything is textured in this image. The low poly is simply one face. No player is using a laptop from 2004, and there is no personal computer that runs the new WoW that could not support a few more faces on this asset to make the windows and beams appear to be three dimensional. In the background of this wall, the poorly warped stone wall is also visible. There was only one texture used for every wall, and the UV maps were not produced well enough to make up for the warping of the walls.

Below is a picture of the Trade District when imported into Maya. As shown, the shapes of the building themselves are uneven, poorly placed, and extremely cluttered. There are gaps which don't seem to make sense, which will be looked further into.



In regard to the poor texturing, I opened the UV editor in Maya to see how the maps had been done. As shown below, the texture maps are extremely poor, and explains why a lot of the textures in the game are warped.



Blizzard Entertainment (2022) could take the time to at least fix the UVs as to make the older textures not warped in the minimal buildings in the city, however in nearly 20 years they have still not changed any of the UVs.

2.3: Conclusion

It is clear that the city is graphically extremely outdated, and there are many small features which could simply be adjusted to improve this capital city. The immersion of the game is truly ruined by some of these features, as well as the overall look of the magnificent city which it is supposed to be. The UV maps appear jumbled, inconsistent and don't make sense, causing the textures around the city to be warped. The models themselves are also poorly modelled, as the faces, vertices and shapes are warped and have bad topology.

3: New Zones

3.1: Introduction

There are newer cities which have been released which look graphically fantastic compared to Stormwind. They still are clearly in the style of Warcraft's original artistry yet they are much more up to date and provide a lot more life that Stormwind does. These parts of the newer cities will be shown as well as be compared and contrasted to sections of Stormwind.

3.2 Boralus



(World of Warcraft: Battle for Azeroth, 2018)

This screenshot is from the main resting inn in Boralus City (World of Warcraft: Battle for Azeroth, 2018). The fireplaces bear a stark contrast to the fireplace shown in SW. The logs are a lot larger, and even though low poly following the polygon shape, the textures look realistic and beautiful. The bricks around the fireplace are truer to that of a real mediaeval fireplace, and the mantle above is adorned with realistic up to date candles.



(World of Warcraft: Battle for Azeroth, 2018)

As shown in this screenshot from Boralus, the walls, beams, windows and accessories to this build are stunning. They are even more grand when compared to the typical walls and windows seen throughout Stormwind City. Even though the window texture is two dimensional, the texture is higher quality. The beams and other details are three dimensional unlike that of SWs buildings. The roof tile UVs are done well enough that there is no warping on any of the textures, and everything has been modelled to each individual house.



(World of Warcraft: Battle for Azeroth, 2018)

The bird's eye view of the city is visually stunning. Unlike Stormwind, all of the textures match the objects they are mapped onto perfectly. No houses look out of place, and the idea of a water based city translates beautifully in the game design. In Stormwind however, the mediaeval aspect is completely lost by bad game design. The skybox in Boralus also bares a stark contrast to that of Stormwind, which is also a feature that could be changed.

3.3 Suramar City



(World of Warcraft: Legion, 2015)



(World of Warcraft: Legion, 2015)

Suramar City is an older city than Boralus, released in the Legion (2015) expansion pack for World of Warcraft. As shown in the images above, the particle effects, skybox, assets and textures are visually incredible. The aesthetic of the city translates the story of the 'void' effected elves well, and demonstrates how assets and textures can be used to set a scene. This city is also a lot larger than Stormwind, which again is meant to be a giant city. This demonstrates another example of how disappointing it would be to see a city like this advertised in a game, only to be faced with Stormwind City at first sight.

4: Software

4.1 Introduction

Now that the reason for this project has been justified, and I have a clear goal as to recreate Stormwind City, it is time to discuss what software will be used to do so. Multiple softwares which

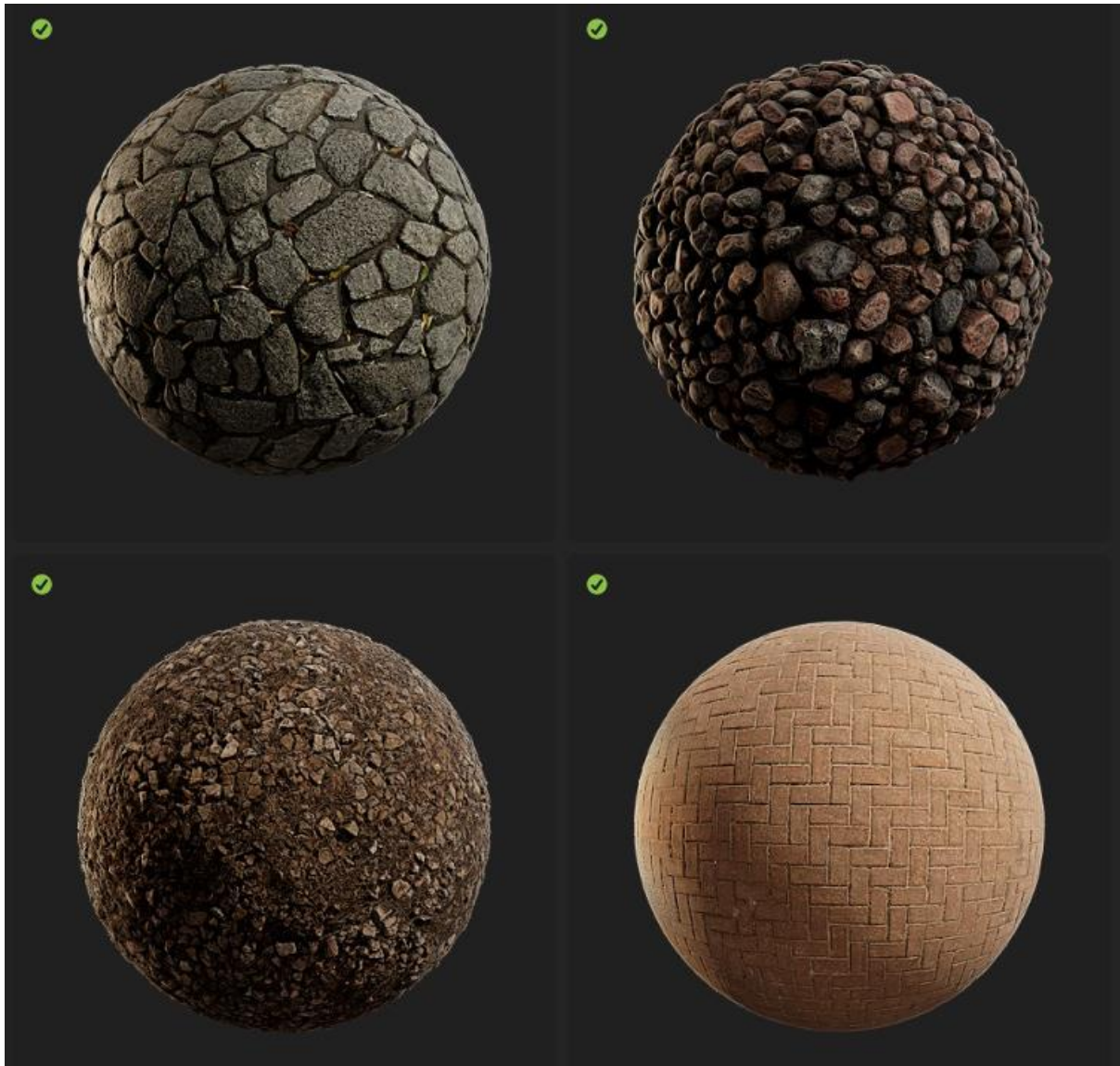
4.1: Quixel Megascans

For the texturing portion of this project, I will be using Quixel's Megascans (2022). Quixel as a company has three products; Megascans, Bridge and Mixer, which is a very unique asset library used by students, professionals and freelancers. Quixel uses these along two applications made specifically for 3D design. Quixel's high quality of assets and textures is used for motion pictures, architecture, video games and personal use. Quixel was formed in 2011 by Teddy Bergsman and Waqan Azim as these artists aimed to reduce the time it takes artists to create digital settings by giving them access to a massive library of textures, models, components, and utilities to make the process easier. Quixel's offices are in Sweden and Pakistan, and the company's employees have extensive experience in the videogame industry. Quixel is merely £18 per month for individual use, and the megascans collection is free provided the user has an Unreal Engine licence. Quixel says it will be able to do *'so much more for the art community.'* Thus it can promise *'a staggering amount of exciting updates to share with you in the weeks and months to come'*. Quixel are now working with Epic Games, and alongside Unreal Engine.

I chose to use the Megascans Library for the textures in my build of the City, as the Megascans library includes extremely impressive normals as well as other maps, and also flawlessly produces flat surfaces and atlases for both specular/gloss and metallic/roughness workflows. This also applies to the photorealistic rendered models, as they all seem to have wonderfully flat UVs and flawless textures, and they transfer seamlessly into Unreal Engine 4 with a plug in. However, due to the specs of my computer, this plug in made my engine run slowly, therefore I accessed them directly from the website, downloaded them, and dragged them straight into the content browser.

I chose to use four textures in total from the Megascans library:

- Flagstone Floor
- Pebble Ground
- Broken Bricks
- Herringbone Pavers



(Quixel, 2022)

These textures were chosen as they were the closest textures which could compare to the low resolution textures used in Stormwind City, as shown in the image above. The brick texture was very close to the original by Blizzard, which I was very pleased with.



Aside from the buildings, the cobble floor, herringbone brick floors and pebble walls can be seen. I decided to include the broken bricks as a blend texture between the bricks and parts of the cobble stone where realistically the brick would be worn down over time.

I also decided to use assets from the Quixel Megascans Library, as some of the Epic Games asset packs did not include individual walls of buildings, as I wanted to have freedom to construct the buildings myself so they could be as close to the original buildings as possible.

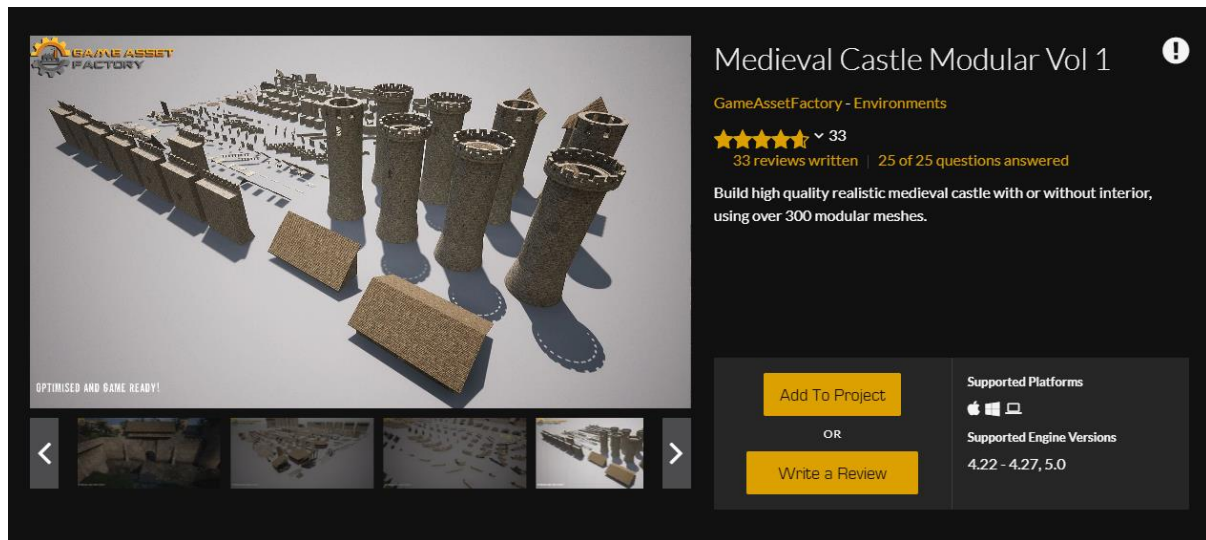


These realistic mediaeval walls were perfect for the build of the new Stormwind City. The textures could be downloaded at an 8K resolution, however for this project I decided to use 2K textures due to rendering and download times. When these walls are compared to the picture of Stormwind city's Trade District above (the district I will be recreating) the walls look very similar in colour and style.

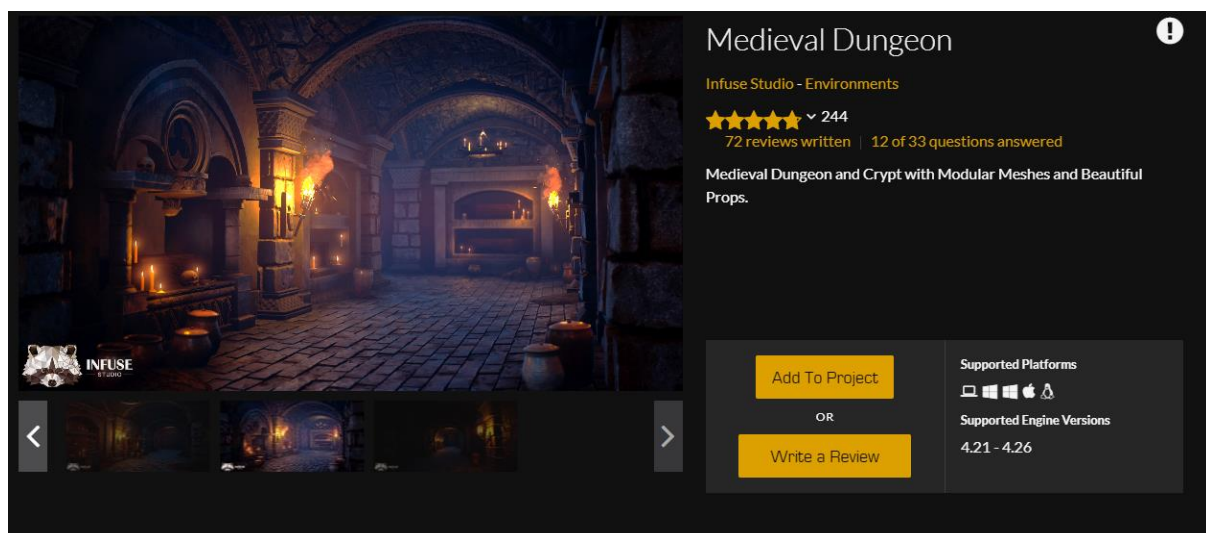
4.3 Epic Games Asset Library

Creating some of my own assets would have been ideal for the build of the Trade District in Stormwind City, however, it was beyond the scope of this project to 3D model, UV and texture my

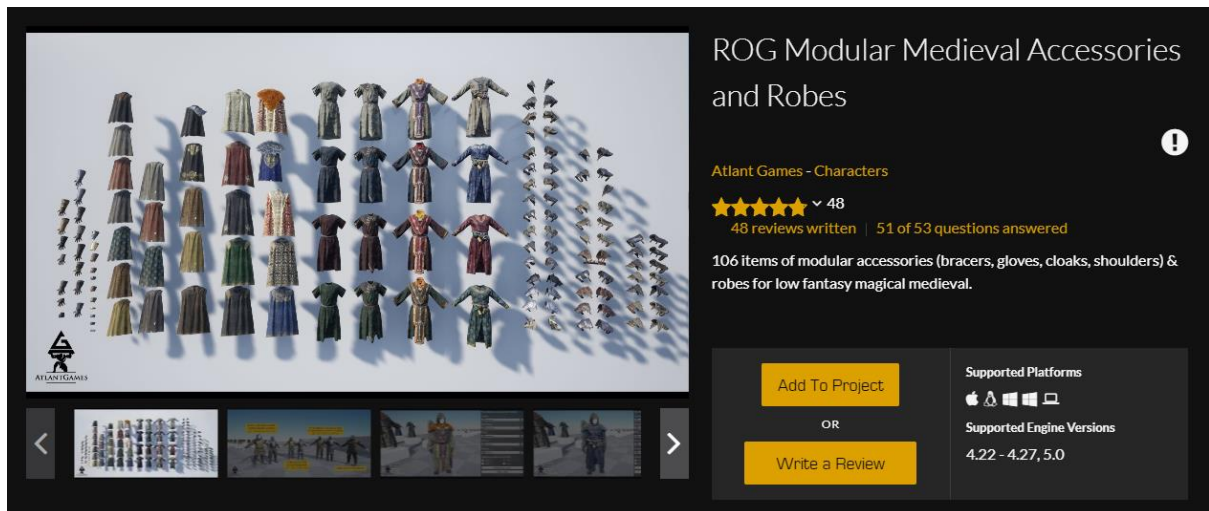
own unique assets as well as build the environment. Therefore, I looked through the Epic Games (2022) asset library to find asset packs which contain objects which match the environment and aesthetic I need for this project.



The first asset pack I found was Medieval Castle Modular Vol 1 by GameAssetFactory. This asset pack was perfect for blocking out the gates and tunnels to the trade district. The turrets when stretched perfectly matched the shape and size of the turrets from the gates of Stormwind City. The roof shingles were also high quality, and many different roof shapes and sizes were implemented within this asset pack. There were also plenty of different types of stone floors which could be used to structure the pavement of the district.



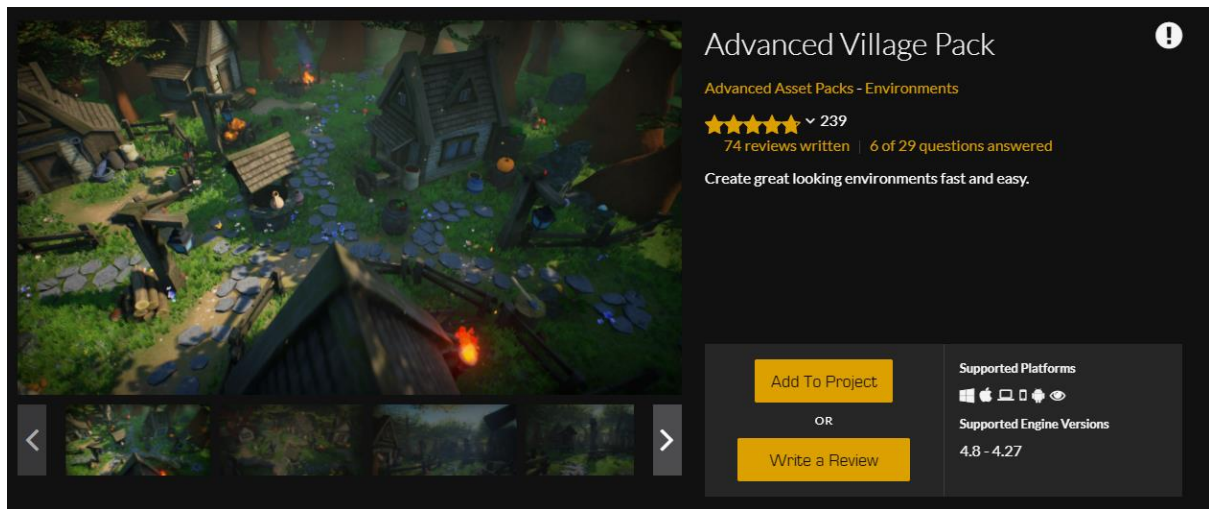
The next asset pack which I added into my project was the Medieval Dungeon pack by Infuse Studio. Although I didn't need many assets from this pack, the crates, barrels, wall torches and a few other small details for decoration were very important to bring the build to life. All of the other asset packs which contained torches and barrels were too stylised to match the high quality of the megascans textures and walls.



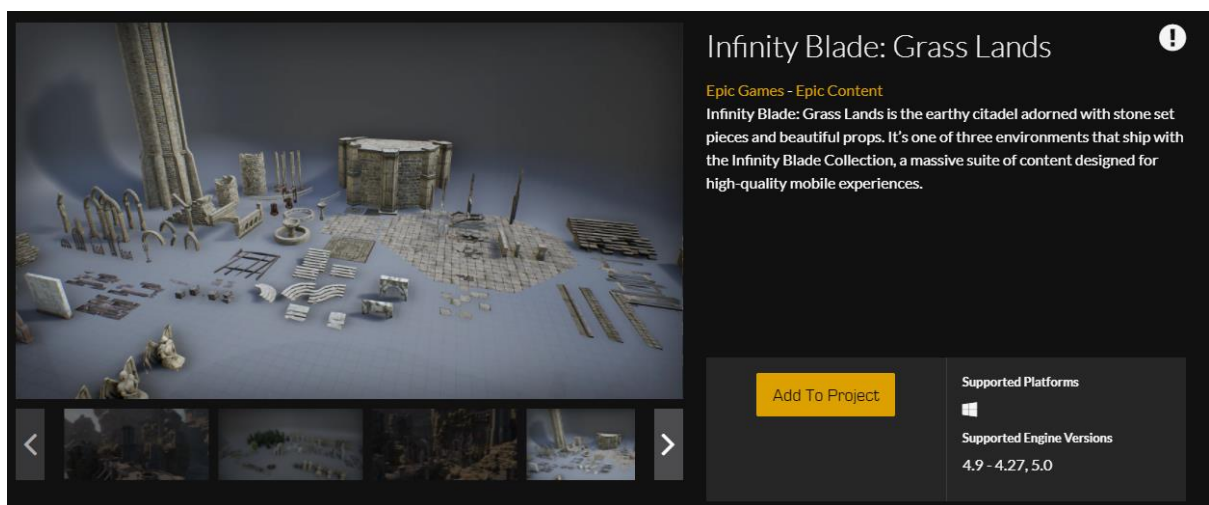
I implemented the ROG Modular Medieval Accessories and Robes by Atlant Games into the project, as for some of the shops, they usually would have goods on display outside in the mediaeval ages as to draw in customers. I therefore used the armour and robes as display pieces outside the shops within the Trade District. The assets are all high quality and brought a lot of realism and life to the build.



Good Sky by UNEASY Games is a fantastic skybox blueprint which I have used in previous projects. Good Sky allows me to edit the sky much to the liking of the project, allowing for a starry night filled with a full moon, much like Stormwind's sky box at night time.



The Advanced Village Pack by Advanced Asset Packs is a must have asset pack for any environment. The foliage, trees, miscellaneous objects and light posts are perfect for creating any environment which is outdoors. This asset pack was used mainly for those reasons and brought a cartoonish touch to the realistic build, much like how Blizzard achieved this look in the newer zones.



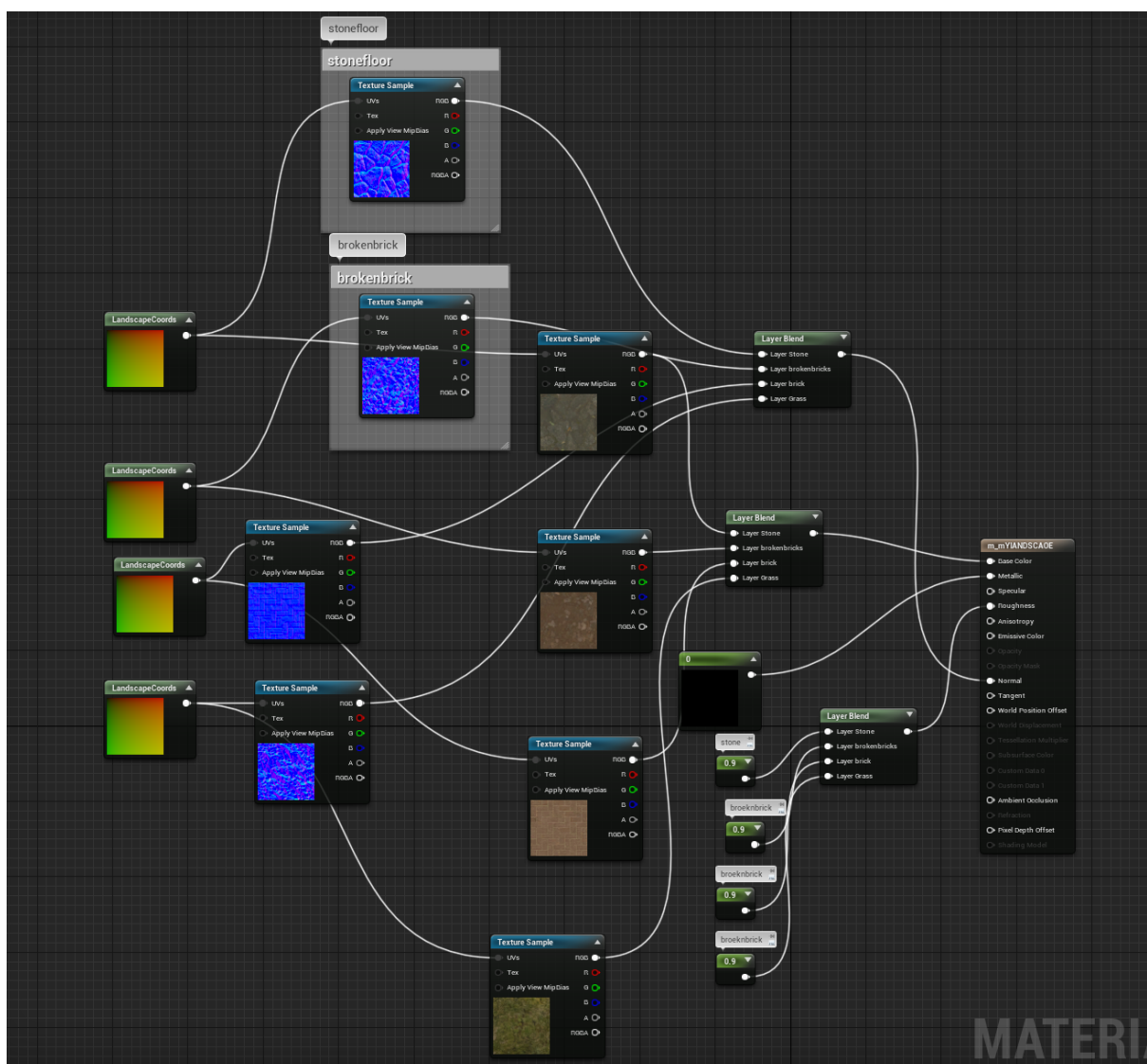
Lastly, a lot of stone assets were needed to build the areas of the auction house and broken pavements. Therefore this asset pack by Epic Games called Infinity Blade: Grass Lands was perfect. The grass textures were also perfect foliage for the environment around trees and other earthy assets.

5: Building the Trade District

5.1: Environment

When using the landscape settings to build the environment, the only two tools which were used were the sculpt and smooth tools. This was because I wanted the mountains to resemble the usual smooth high top mountains seen in WoW.

An environment using more than one texture has been something I had never made before, so I decided to challenge myself into creating my own landscape material. I imported the 4 2K textures I was going to be using. From here I added the albedo and normal maps into the material blueprint which I created, and plugged them into the correct nodes as shown:



Initially, the landscape was just the cobblestone, and the brick texture was placed over thin square cuboids to build the pathways. However, half way through the build some peer review was given as I placed the unfinished build in a university group, asking for advice. One peer said:

'I really like the textures you have used, however I think there could be a blend between the brick pavement and the cobble to make it look more realistic, and less clean. A bustling street would definitely have some broken bricks and curbs here and there.'

This statement was very true, therefore all of the brick floor was selected and deleted. The brick texture was then placed into my landscape material and I set the blend weight to 0.5, so it was a very even blend.

I painted the bricks where they needed to be, and around any assets such as trees, or where walls met the brick floor, the broken brick texture was painted on.

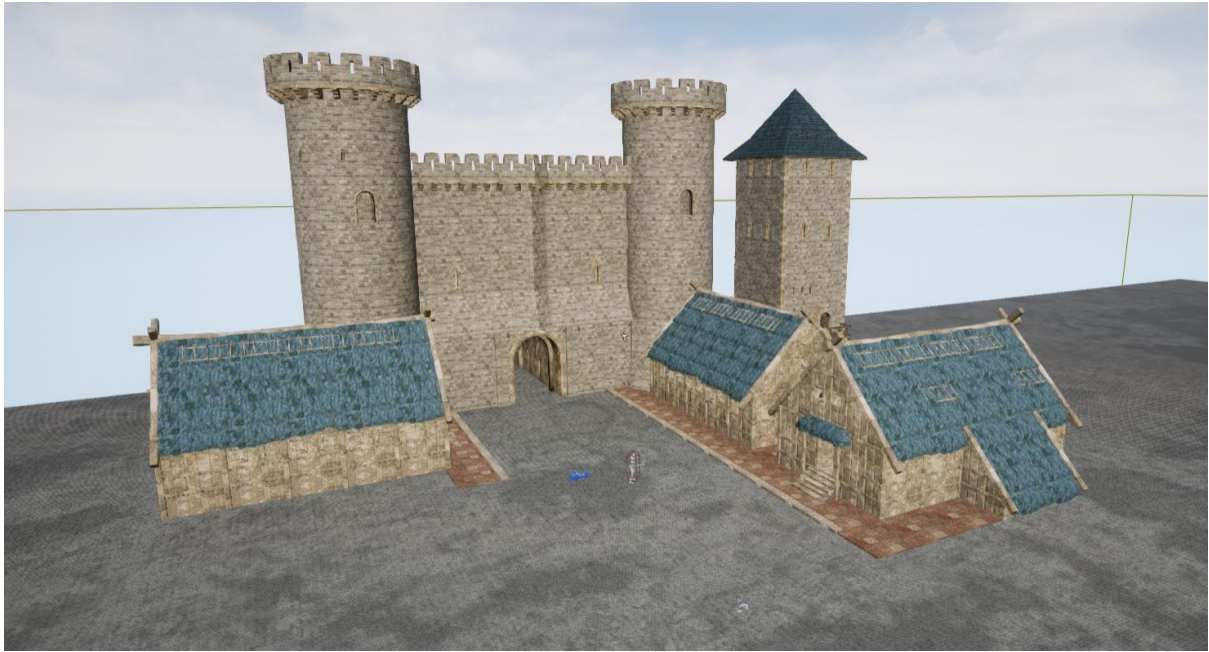


5.2: Architecture

For the portion of the build where the buildings needed to be formed, I initially began with some pre-made thatch roof houses. I did go into the material instance of the roof to change the original yellow hay colour to blue, however the houses themselves did not translate to the mediaeval Stormwind City. In a peer review, one peer said:

'I really don't like those houses. They look a lot older than the ones used in the actual game, I'd consider changing them. The textures of the houses don't complement the floor of the environment either.'

Here is a screenshot of the original houses the peer was referring to:



I agreed with the peer, and followed this peer review and removed the initial houses. It is from here that I imported all of the mediaeval walls found in the Quixel Megascans Library.

Each wall was hand placed, whilst constantly referencing the actual map of the Trade District as the houses were being built. I had to take creative liberties in designing, and really think about the scale of the buildings, and how I was going to make the house shapes look realistic.

After the first couple of houses were constructed, I asked for another set of peer reviews to see if the buildings had improved. One peer said:

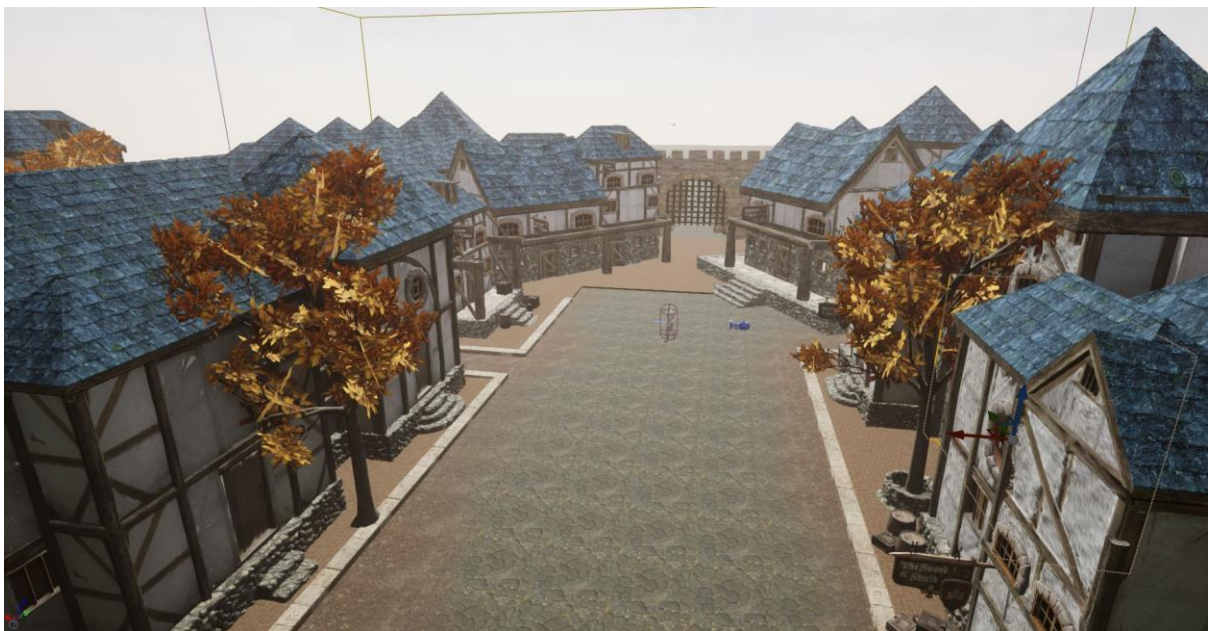
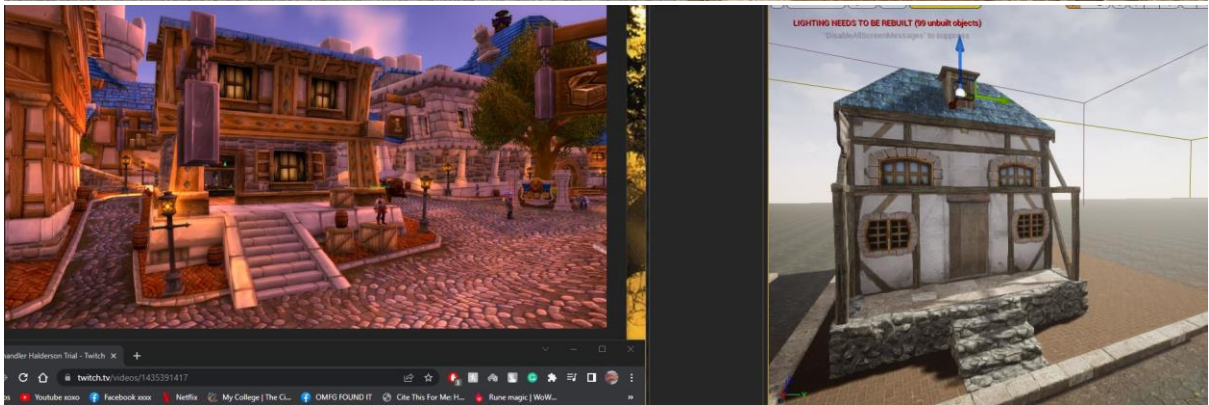
'I love those textures of the walls and they seem to match the environment a lot better. Consider adding some assets such as beams and windows that add more depth to the buildings to make them pop.'

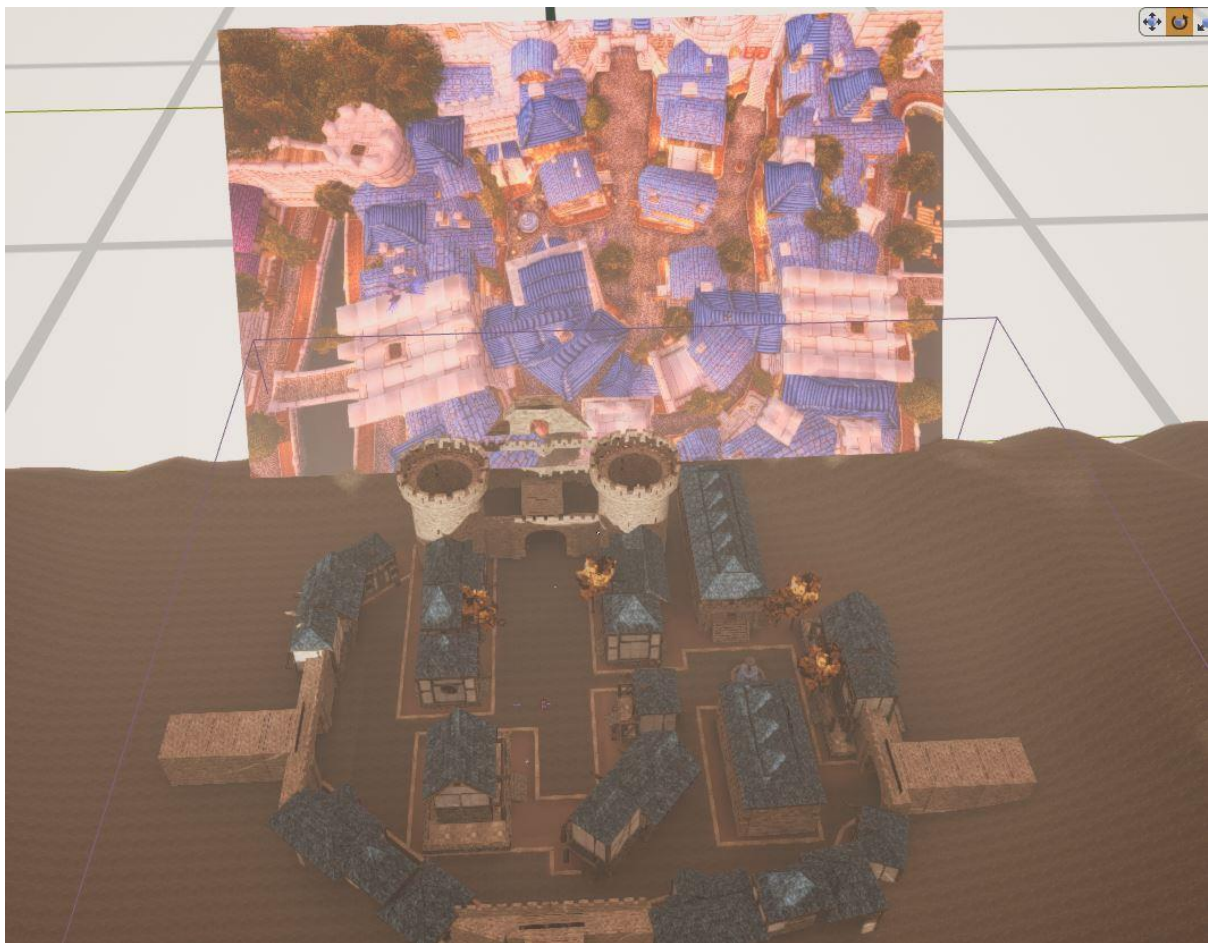
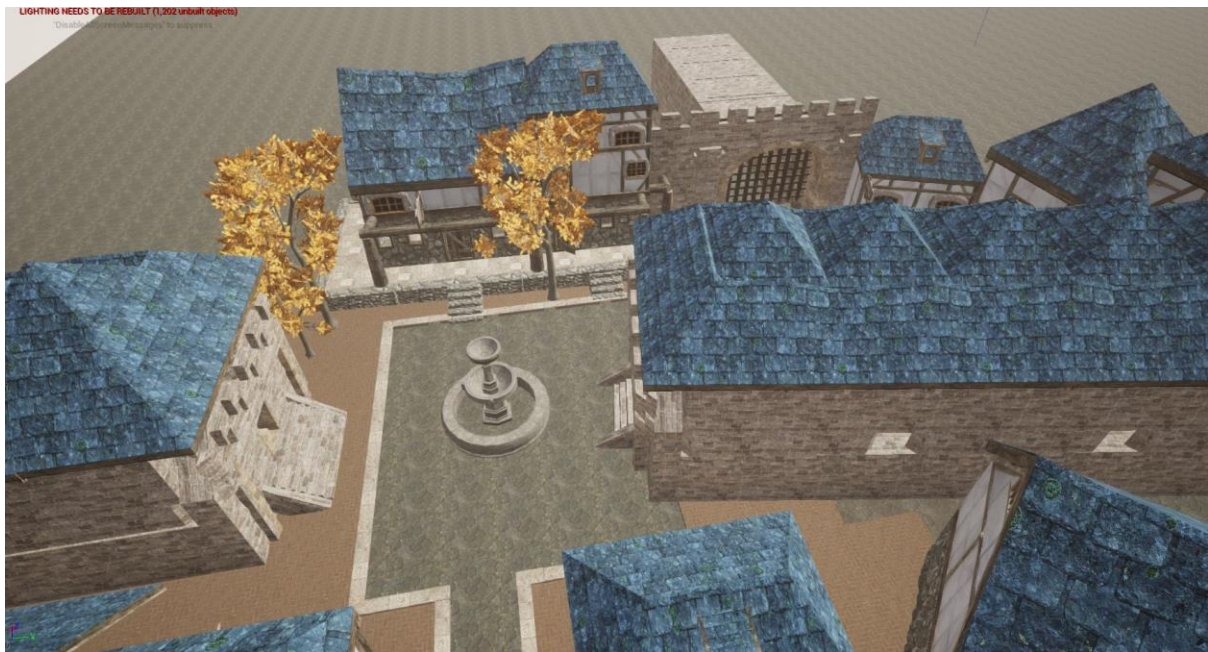


Originally I planned on doing some more things to the houses to make them stand out, but the idea of adding wooden features as beams did not cross my mind. Therefore this peer review was extremely insightful into how to construct the houses further, and keep the theme going with the megascans walls.

It was an interesting experience constantly referencing a real game map and ensuring everything was being built to scale. What helped was placing the roofs on top of each building and then adjusting the camera to get a bird's eye view. This when compared to a picture of the bird's eye view of Stormwind pointed out which buildings needed to be adjusted and if they were too big or too small.

There were some creative liberties which needed to be taken as some parts of the trade district could not be included due to a lack of assets. In the back corner of the map, there is a grand set of stairs which lead to a flight path. This was instead replaced with a shop. Also, due to the wonky and warped shapes of the original Stormwind buildings, I made a decision to slightly alter the map due to all of the constructed buildings being squares and rectangles. This was to increase the level of realism in the rebuild and avoid cartoonish old style buildings. Here is a direct comparison as well as a progression of the architecture.



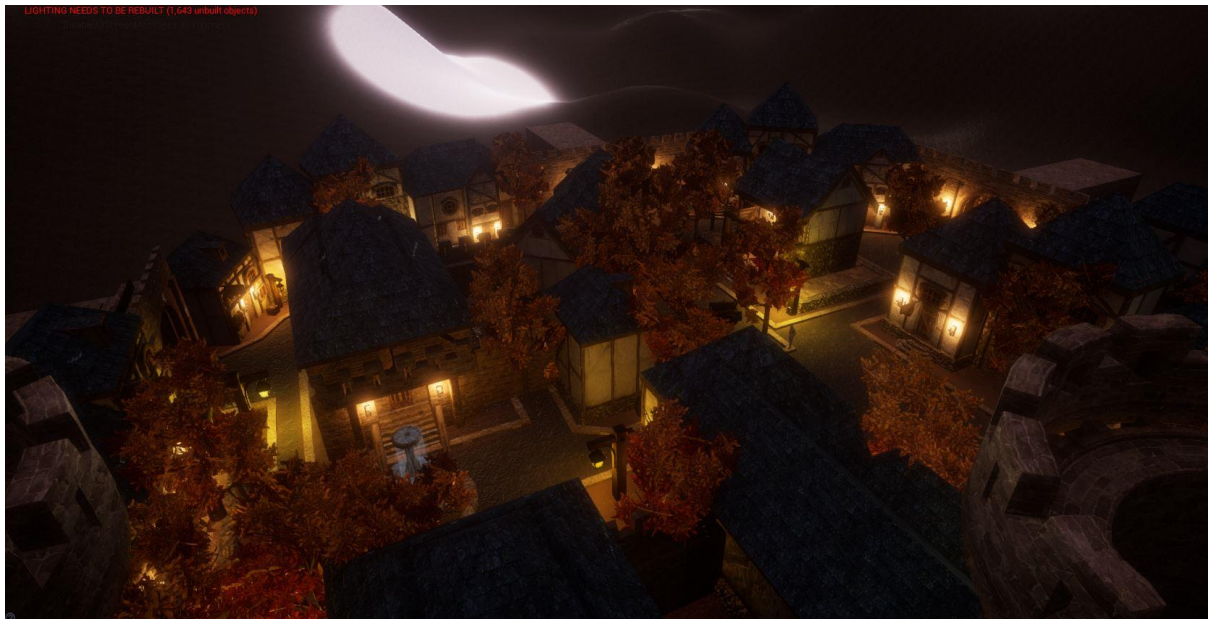


The bird's eye view image was placed on a plane, so that I could see exactly where the buildings needed to be.

The assets placed around the buildings however began originally to exactly match the assets in the real game. Crates and barrels were placed exactly where they were, as to fill the empty space in the

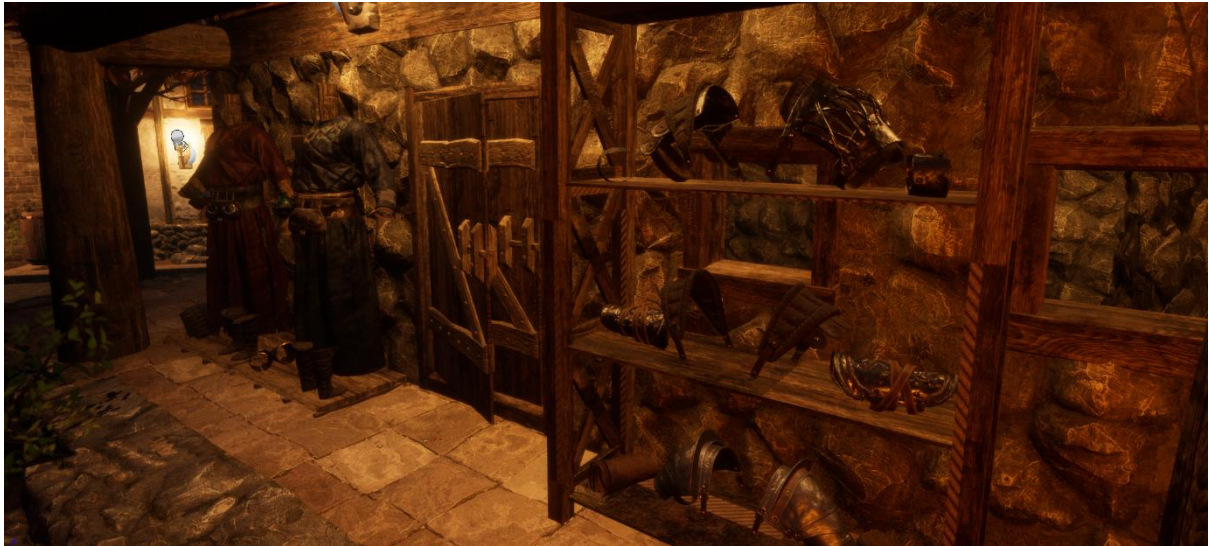
district. After all the initial assets were placed, I asked for some more peer review as the build was looking fuller. One peer said:

'I think adding some more assets would be good. Even though you've placed what should be there, because it is a realistic environment you are creating, realistically there would be a lot more things around. Especially if it's a trade district.'



This peer review helped me gain another perspective, as adding more realistic assets that weren't in the original game would indeed add to the level of realism.

This peer review was followed, as many decorative aspects were built within the engine to create a fuller town. An armour stand was built, using a wooden pole, a robe, and a wooden platform. A shelf was also placed and lined with spaulders and gauntlets outside of the armour shop. Outside of the door of the weaponsmith, stands of weapons were placed along with some suits of armour, alongside additional crates and other miscellaneous items.



5.3: Lighting

The lighting in this build was a very important factor, as the lighting in Stormwind City was very unrealistic, to begin with. At nighttime, the sky was still somewhat bright and the streetlights, torches and lamps did not emit lighting that cast any shadows or lit up any surrounding assets.

Within this build, a torch was built using the mediaeval dungeon pack. The torch was made into a blueprint, as to include a particle effect, mesh and a point light. This worked fantastically into making a real looking mediaeval torch.

I changed the skybox, Good Sky, a few times around as I couldn't decide what time of day the showcase should be set at. I asked for a few different peer reviews and most of them agreed that nighttime would be best, as 'the torches at night really do give off mediaeval trade fair vibes for sure. Adds a lot more atmosphere'. From these results I set the sky to nighttime and added a large moon, adjusting the sizes to match how big the moon appears in the game.



(Good Sky, UE4)



(World of Warcraft, 2004)

5.4: Peer Review

When I thought the build only had a few things left to achieve, like finishing touches, I decided to do one more peer review to see if I missed anything that wasn't thought of. Luckily, one peer pointed out a complete oversight, saying:

'It does indeed look like the pictures, however maybe some of the typical mediaeval bunting would make it fuller, and some banners or flags or something'.

I completely forgot to add in the Stormwind colours, so I utilised a program called WOW Export which allowed me to download models directly from the game. I quickly picked out some newer banners, bunting and flags and implemented them quickly into the game, placing the assets around.

This addition indeed really did add a lot of life to the city, and made it look like Stormwind City.



In another peer review, the skybox was commented on. The peer said 'I really love how it looks just like the original skybox in WoW, but better quality'. This was great feedback, as it was exactly what I wanted to achieve.

6: The Impact and Conclusion

I wanted see if any fans, game developers, or potential game developers would like to look at the build as to see what kind of reactions they had. I put the pictures of the build into a Warcraft Discord and asked for opinions, expressing how it was for my final project at university. The response was very insightful:

'Amazing job, I knew exactly where this was right away. I don't want to know how much time you spent on this. Big respect.'

'Imagine if the game looked like this. The roleplay would be insane.'

'Blizzard should really consider updating their graphics. This would be mad.'

'TAKE MY MONEY!'

'I thought this looked familiar, that's crazy. This looks like a mediaeval trade district for sure.'

'That looks awesome. Well done.'

'Honestly the addiction would not end. You deserve an award.'

These responses were great to hear, as it does show how there is a clear demand for updated graphics in zones of older games. These were only some of the quotes from Discord, and the overwhelmingly positive response spoke great volumes about the opinions of the old zone being bad. No developers reached out via Twitter yet, however I hope to soon receive a response and a direct opinion on what they think about updating the old zones.

Overall, income and user experience come hand in hand. If the players enjoy the game, there will simply be more players, thus more money. Especially considering that Blizzard's WoW is a monthly subscription. If there was a big update, a lot of players would pay and return to the game, and possibly recruit new players.

This was an important aspect of game design to explore, which I have no seen touched upon often. There are plenty of fantastic games that over overlooked due to outdated graphics, that I believe could spark a whole new world of inspiration for gamers, and game developers. This would be beneficial financially, as well as showing a loyal audience that the development team still care about the aspects of the game which made it great in the first place.

I am thrilled with the outcome of this project, and have improved my skills in environment building, texturing, and research into opinions and understanding the community in the game development world. I believe if I am to potentially become a game developer, the first step should be understanding the audience, and knowing what they want.

7: Showcase



















Comparison 3



Comparison 2



Comparison 1

Evaluation

On this project, I developed a capital city in a game which has not had updated graphics since 2004 using Unreal Engine 4. I acknowledged and comprehended the skills needed to use the software and produced an outcome. I produced a build with 2k textures, mixed assets and more. I looked into the overall consensus from fans of the game, to determine that there is indeed room for change in the game development industry, and older sections of games, especially with high traffic, should be updated. This would benefit game developers financially, as well as producing a higher UX for the player. The medieval Trade district was built using many different assets from Quixel and the Epic Games Store. Only a few flags from the original game were imported into the engine.

I enjoyed the architectural side of the project. I loved watching a city come to life slowly as the walls proceeded to be built up. It was fun to look at an existing map and wonder where there was room for improvement and try to apply it directly to the map I was creating. It was interesting to see how the buildings were originally structured, and to speculate on why the design choices have not been changed.

Though the build was fun, it was extremely time consuming. It was very hard to sit for hours on end and only produce one building at a time. The texturing aspect was also challenging, as choosing the right textures and ensuring every asset matched the environment and aesthetic was hard, as thousands of different assets were looked at for this build, before they were imported into the engine.

My peers loved the way the build looked, and agreed it was indeed important to showcase how a game could be well received if the older zones were updated.

'Even though nostalgia is a big factor in the old game, playing the old zone looking as high quality of this brings new and exciting feelings to the game. I'd definitely buy it' - Megan Frankland

'I think what you have done is show Blizzard how the neglect of a game truly does not add to any of the user experience. They should really take a page from this book and seriously consider a revamp of the horrible textures.' - Bethany Oram

'I'd play this game, most certainly. I don't understand why they haven't been updated since 2004, but you've really highlighted in this project how poorly done the old zone is. Especially considering a lot of players still go there.' - James Gorman

I learnt from this feedback that potential game developers who share similar passions to me also have the same view. What this project showcased and proved is that the older games should indeed be updated to increase overall player satisfaction, as well as bring in a newer audience.

Due to unforeseen circumstances the planning of this module was flipped completely. It was very hard initially to get started, however once I had a break and got back into the usual habits of building, it was planned well, and I spent an select amount of time each day completing some of the project. I have learnt that it is important to plan and do something every day, then to leave things last minute.

Next time, I would want to look into producing a bigger build. Instead of one of the zones in the city, possibly the whole city. I would like to focus more on the lighting and textures of the overall environment. Though it looked realistic, and I achieved my goal, from what I have learnt in this project I believe that I could now push myself beyond the scope of the final major project and produce something industry standard. In the future, I will consider all possible routes and plan accordingly. I have founded a great inspiration for environment building and I look forward to what I create next.

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