

# GAME DESIGN PORTFOLIO

- Oscar Wightman

## TEAM17: GOLF WITH YOUR FRIENDS

Working on GWYF, I designed, worked with artists to craft, and implemented, the 100% positive Steam-reviewed Pizza Party Pack downloadable content.

I also implemented and designed new UI and functionality surrounding the new Couch Mode.

As well as designed levels, assisted in crafting narrative, and implemented mechanical functionality for levels within unreleased NDA content.



## TEAM17: OVERCOOKED! ALL YOU CAN EAT



On Overcooked! All You Can Eat I ensured core functionality to a tight sign-off deadline for the most recent Winter Update. In which I resolved bugs and ensured mechanical functionality for complex levels.

As part of this process I also handled functionality for localisation and UI for the game's front end.

A key part of this sign off stage was working alongside QA and Production to ensure that the builds we were creating fit the needs of the product, and that all the fixes in our system were resolved before we pushed our release candidate.

In this instance I was able to resolve the issues ahead of schedule, and the release candidate was well received.





# TEAM17: HELL LET LOOSE

I used Unreal Engine to implement haptic controller support for Playstation 5 and Xbox Series consoles, as well as implementing names and localisations for new credits.

The above involved working within Hell Let Loose's custom build of Unreal Engine 4 and working with blueprints to implement functionality.

As well as creating functionality and determined console achievements, I also worked alongside artists and testers to frame achievement images for use on console, see the examples here on the right. Requiring a core understanding of gameplay, and of what would appeal to the audience of this title.



# TEAM17: THE UNLIVING



Using Rewired in tandem with Unity3D I designed and implemented radical controller changes and new functionality for better game flow for The Unliving.

The brief was to make the in game cursor function smoother on controller, a key aspect of the combat in the game, which involved working with rewired to understand the curves and dead zones of controller movement. As well as this I had the opportunity to draft a pitch for a new control system on controller which would have done away with the in game cursor, for which I produced thorough documentation outlining various stages of effort in developing different ideas.

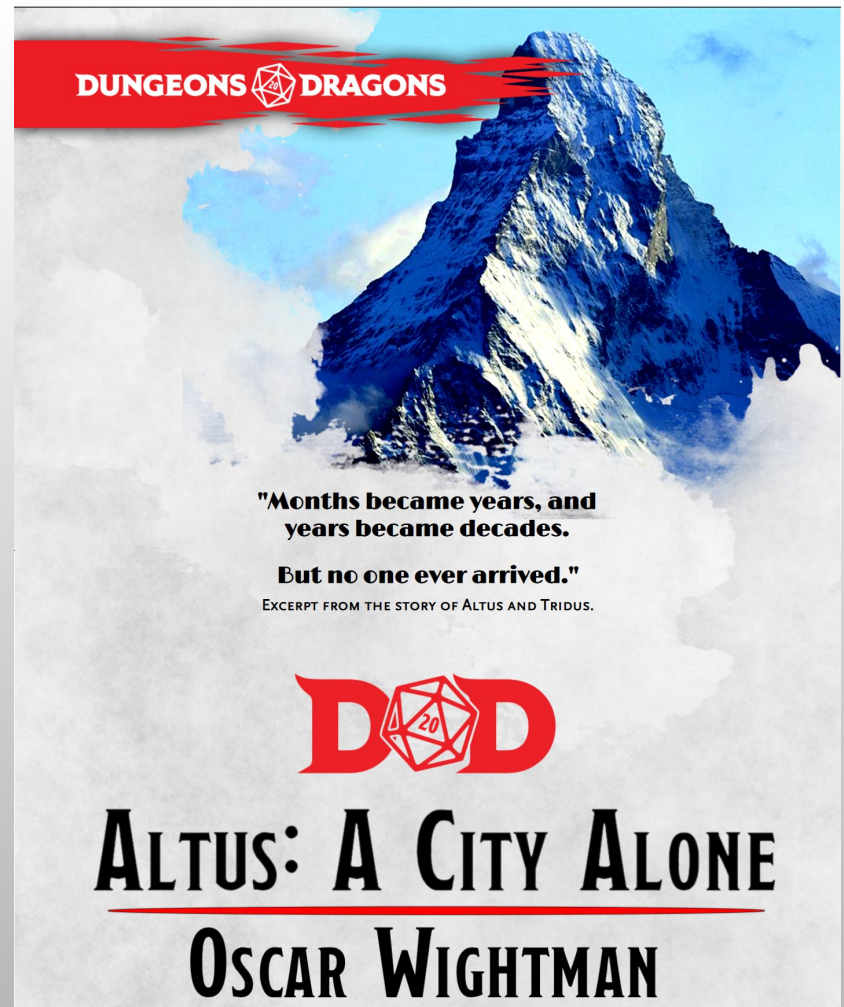


# ALTUS: A CITY ALONE

*Altus: A City Alone*, is a Dungeons and Dragons 5th edition adventure and campaign setting I made on my own, for my Practice Based Dissertation in my final year of my Games Design and Production course at the University of Salford.

Altus, a 1920-30s style fantasy city, draws on the gritty noir of this style, juxtaposed with the flair of fantasy, with setting and story elements that fit this theme: A city with a seedy underbelly and plenty of stories to tell, not all of them pretty.

Altus was produced in around 6 months, and by its completion was 160 pages long (stretching now to 190+ as I prepare it for publication!), filled with complex characters, fiendish monsters, deadly environments, and, perhaps most importantly, a gripping storyline for the players to follow, filled with the above, as well as engaging quests for them to pursue.





# ALTUS: A CITY ALONE

## NARRATIVE DESIGN EXAMPLE - SHADY MARKETPLACE

As part of the second chapter in altus, the players have travelled to a shady marketplace in order to negotiate a meeting with a frightening gang.

This quest features a number of stages which help give the characters more contextual understanding of the world, while learning about the multiple moving parts in the city:

The characters are propositioned to acquire an item from one of the stalls, that has been stolen from the gang leader.

During this experience, the characters can gather information about the Item, speak with the Ex-gang member who owns the item, and attempt to retrieve it from them in multiple ways.

This quest is a branching narrative, with multiple possible outcomes, the characters can convince the ex-gang member to sell the item, steal the item from a private lockbox as his stall, or even stalk him member and interrupt a private selling of the item.

## Lirus Market Place

The Lirus market is a bustling symbol of hope in the mark of despair that Lirus leaves on the surface of Altus. Although despite this, never have these streets been more dangerous, with the street scourge becoming more and more bold, walking these streets has become one of the most difficult aspects of life in Lirus.

However, if the characters want to help H.0.0.V5 and find Isco, they're going to need to deal with some of the shadier denizens of Lirus.

## Hustlers and Bustlers

As the characters arrive at the Lirus market, read or paraphrase the following boxed text:

Lining the drab streets, are bright colourful market stalls, with produce ranging from vegetables and fish, all the way to jewelry and trinkets. Mundane vendors clamour for the attention of passers by. The smell of spices that drifts down the street towards you assaults your senses, a pleasant contrast to the usual smell of Lirus' streets.

As the characters walk the streets, they have the opportunity to purchase any mundane items they wish from the marketplace.

If the characters succeed on a DC 10 Wisdom(Perception) check, they notice a young man with a shawl covering the lower half of his face, leaning against a building and watching them. On a DC 15 or higher, the character making this check recognises the shawl as street scourge attire.

This man Damien Ralin, a street scourge member, eager to scout the Lirus market for fresh talent for the gang. Whether the characters spot Damien or not, he calls them over once the characters have initially explored the market.

## Damien's Proposal

Damien is looking for fresh blood in the street scourge, and the characters might be just what he's looking for. As well as this, the characters may have approached Damien on their own, looking to find some way to contact the Street Scourge leader, Generous.

Either way, Damien has a proposal for the characters, if they want to meet with Generous, and make some money, they have to perform a job for him first. A theft, to be precise.

Damien points the characters towards a stall in the market called Curiosities and Creativities, and informs them that one of the items being sold at the stall was stolen from Generous, and they require it back. The item in question being a small golden pocketwatch.

Damien is not certain where the pocket-watch is specifically, but he knows that it is within the possession of the stalls owner, a greying man known only as Riff. He is quick to inform the characters that Riff used to be a Street Scourge member, and as such, any movements made by an established member would be seen through immediately.

Lastly, Damien warns that amongst Riff's curiosities are a number of dangerous objects, and as such, they could find themselves drawing more attention than necessary. Damien isn't in the business of being caught, and states that if the characters get caught by Lirus law enforcement, they never met him.

## Curiosities and Creativities

As the characters approach the stall of oddities, read or paraphrase the following boxed text:

Stepping towards the stall, your senses are immediately assaulted with bright colours and blaring noises. Mechanical gears spin and whizz inside elaborate puzzle boxes, while delicate silks cover mysterious crystal orbs that glitter and shimmer in the sunlight.

Stepping up from a small chair behind the stall, a middle aged man with greying stubble pulls a pipe from his lips. "Well hello!" He croaks, smoke blowing in your faces, "care for a curiosity?"

Riff is friendly and welcoming towards the characters at first, and will attempt to sell them a number of items from his stock. Unbeknownst to Riff, who is Mundane, his stock is actually a number of enchanted items. Riff a deeply superstitious man, has never attempted to understand or explain why his items are the way that they are, and simply states that they are well crafted, and come from a private supplier.

In actuality, Riff has acquired all these items from raids on old forgotten Bureau cache's in the underground, performed by the Street Scourge. Having been a loyal member of the gang for over 30 years, Riff has decided to cut and run, thinking that by selling the pocket-watch to a private buyer he may be able to leave the gang for good, and buy a house in Tarence or Foristal, away from gang life.

Around the back of the stall, the characters see a large stockpile of vaguely "curious" items, such as crystals, spinning tops, and "ancient tomes". Along with a litany of Riff's personal effects.

## Riff's Journal

If a character succeeds on a DC 10 Intelligence(Investigation) check, they discover Riff's journal, which outlines that Riff has found a buyer for the pocket-watch, which he reveals is stored in his safe. Within this entry, he also has noted the combination for the safe, meaning that if the characters can get to the safe, they can access the pocket watch.

## Riff's Letter

If a character succeeds on a DC 15 Intelligence (Investigation) check, they also find that amongst these personal effects is a letter, describes a deal that Riff has brokered in order to sell the pocket watch.

This letter outlines the location of the deal, a nearby courtyard in Lirus, as well as the time for the meetup, which is tonight.

At the bottom of the letter a mysterious symbol signs off the deal. If a character is able to succeed on a DC 20 Intelligence(History) check, they recognise this symbol as the representation of the Oasis, another criminal organisation operating out of Foristal.

## WATCH OF GENEROSITY

The Pocket-Watch is a *Watch of Generosity*, crafted by Generous herself. Three times per day, a creature holding the watch may press the clasp release as a bonus action, freezing time for 6 seconds(or one turn of combat) for themselves and 2 others within 100ft. This effectively allows the creature to grant those effected by the watch an extra turn without other interference. If a characters moves during this period, anyone not affected by the watch who observes them, appears to see them teleport, rather than move quickly.

# ALTUS: A CITY ALONE

## QUEST DESIGN EXAMPLE

### - A DAME BY ANY OTHER NAME...

Designed as a one-shot (a campaign to be run in one session) “A Dame by any other name...” was created as a way to encapsulate a classic noir murder investigation to introduce players to the world of Altus.

Within the quest the players must investigate the disappearance of a non-magical woman, who appears to have thrown themselves (or been thrown through) the window of her 16th-story apartment.

As part of this quest, the characters must gather clues about the victim, and understand who might have targeted her, taking them around one of the most festive and vibrant parts of the city, featuring bright neon lights and dark alleyways.

In tracking down the suspects, the characters battle against werewolves, skeletons and a powerful lich, while solving clues and using their information to make their next move.

This quest was also designed so that it could be plugged into chapter 4 of the main story I created for Altus, allowing the characters to help an important gang in the city, “The Oasis”.

The following snippet is only a portion of this quest, which takes place over 7 pages in the adventure

## A Dame by any other name...

This story involves the players' characters working alongside H.o.o.V's, in solving a mysterious case from within Foristal.

If the characters are playing through the main story, this side-story can take place during chapter 4 while the characters hunt for the Oasis, or any time after the main story (presuming H.o.o.V's survives the events of the main story).

If the characters are not playing through the main story, they can be either witnesses to the event described at the start of the story, or are prominent enough in the city already that they gather H.o.o.V's' attention.

### ...would be just as much trouble.

To introduce the players to this story, read or paraphrase the following boxed text:

A warm spring day is coming to an end in Foristal, the cool breeze of the night begins to blow. The streets are abuzz with life, as the sun descends it casts long shadows between the statuesque skyscrapers that line the front. As neon lights shine, they project shadows that begin to tell a new story. A story of the night.

A shriek pierces the night, and another shadow cuts it's way through the soft lights, accelerating towards the cold concrete. Someone has fallen from Irlinis Tower, and yet, there's no body to be found.

Following this brief introduction to this story, the characters are summoned to Irlinis Tower the following morning, if this is the characters first meeting with H.o.o.V's, feel free to use the H.o.o.V's introduction on page(), obviously without including the references to the main story.

In order to contact the characters, H.o.o.V's makes a number of phone calls that reach the characters, and entices them with the promise of a large financial reward following their assistance with this case. Although knowing H.o.o.V's, he will probably present the situation in a much more mysterious and intriguing way.

### Quickest way to Ground Floor

As the characters all arrive at Irlinis tower, read or paraphrase the following boxed text:

A low mist hangs over Foristal as you approach Irlinis Tower, which pierces the skyline even through the heavy fog. Figures begin to form in the mist, a number of police officers stand by a man wearing a black trench coat and a fedora that covers his eyes. Ahead of them you begin to make out the scene of the crime. At least one scene anyway.

As you near the huddle, the man in the trench coat turns to greet you.

The man greeting you is H.o.o.V's, who is using a runic polymorph, (page()) to disguise himself as a greying, rugged-looking, human man. He smiles as he greets the characters and proceeds to show them around the crime scene:

Shards of glass litter the ground, behind thick yellow police tape, along with a smattering of blood that has been splattered and smeared on the ground. "Unfortunately theres not much to see here." says H.0.0.V5 "that's the strange part."

While here the characters can discuss with H.o.o.V's about what has happened. H.o.o.V's has the following information for the characters if they ask the right questions:

- At around 11:45 last night, a scream was heard on the street outside Irlinis Tower.
- Investigating the scream, a mundane janitor who was cleaning up the lobby of the tower found the scene as it is now, simply glass and blood. By midnight, the police had been called.
- H.o.o.V's was tipped off by a mundane police detective who knows him as "Harvey Hoover" who claimed that the police had been stumped as to what had happened for a number of hours.
- The location of the body of the Victim is still unknown, however, the smearing of the blood on the street makes it seem as though the body was dragged away, to be disposed of.
- The Victim is unknown at the moment, however, H.o.o.V's has located the apartment from which the victim fell from, 16-04.

### Going Up

Following this sharing of information, H.o.o.V's leads the characters inside the Tower Lobby, read or paraphrase the following boxed text:

Irlinis Tower's Lobby is alive with noise, not only from a record slowly spinning upon a gramophone in the corner, but also with murmured conversation.

A number of mundane police officers converse with wide eyed witnesses. As you pass by the reception desk you see many more officers turning it over in an attempt to find evidence.

If the players make an attempt to find the Janitor who called in the report, they find no trace of them. If they ask the receptionists where the janitor in question is, they inform them that all the janitors only work at night, and wont return for their shifts until 9pm this evening.

Following any exploration of the lobby, H.o.o.V's quickly leads the characters to the elevator, and begins to ride up with them to the 16th floor.



# ALTUS: A CITY ALONE

## QUEST DESIGN EXAMPLE - GHOSTLY CAMPSITE

In the fifth chapter of Altus, the characters experience a great shift in the progress in the story. Following a betrayal from someone close to them, they have their items and gear stripped from them, and are forced to climb the enormous mountain that casts its shadow on the city of Altus.

While the journey to the top of this mountain is a narrative arc in itself, potentially including 20 different unique encounters, this piece focuses on one of these encounters, in which the characters come upon a cursed campsite, filled with arguing ghosts.

This arc takes the form of a murder mystery, in which the ghostly figures, a climbing party from many years ago, must be interviewed in order to figure out which one of them is responsible for their collective deaths. Unfortunately, due to the powerful spiritual anger in this place, the characters are magically trapped until they have solved the mystery.

Each of these climbers has their own biases and opinions, which can begin to confuse the characters and get in the way of them discovering the facts, making for an intriguing puzzle for the characters to solve so that they can continue their own climb.

This quest is just 1 of 20 the characters can encounter while scaling the mountain.

### 9. Campsite Mystery.

Read or paraphrase the following boxed text to your players.

The wind dies down as you approach a clearing up ahead. The air hangs eerily still as you approach. You can see the remains of a camp lie barren in this area. The tents are tattered and torn, the various backpacks have been turned out, leaving clothes, rations and climbing gear all over the ground. As you look closer, it becomes clear that all of these have frozen blood splattered across them. This isn't a wrecked camp, this is a crime scene.

If the characters decide to investigate the camp, they quickly will begin to hear two people arguing somewhere within the camp:

"And if you'd just kept awake while we slept!"

"Kept awake?! It was freezing outside! Did you expect me to sit in the cold and die?"

"Well, that might have been the better option yes!"

When the characters investigate the source of the conversation, the characters will discover that the two people arguing are actually the **Ghosts**(p147 MM) of an Elf, Læroth Trifelle, and a Halfling, Belbyn Macroy.

If the characters try to talk to the **Ghosts** they will discover that the two were part of a climbing party that attempted to climb the mountain.

They, along with Tiffling Arienne Karzaks, dwarf Reginald "Reggie" Coppertongue, and Humans, Percival Herrencwether, and his brother Tarquill Herrencwether (Owner of the pack, and writer of the diary, found in **6. Travellers Pack**), have all returned as **Ghosts** after they were killed in their camp. However, there is one member of the climbing party who has not perished. Their trusty Iron Golem, C.L.I.M.B.E.R.(Calibrated Limber Inference Machine, Built for Escalation Reconnaissance) who has been malfunctioning.

These seven climbers make up the **Tarencline Scalers**, named after the district of Altus where they formed and decided to make the climb.

Once characters have met all of the Tarencline Scalers,

Tarquill Herrencwether will pull them aside, asking them for their help. He is unsure what exactly ended the climbing party, but he has been trying to figure it out in his spectral form. He is certain that they can figure for certain what is going on and that they'll be able to find out that there's more than each of the members are letting on.

At this stage the characters must solve the mystery of the Tarencline Scalers camp in order to progress and must discover the real culprit of their deaths. Tarquill believes that if the characters discover for certain the *real* reason that the climbing party died, that they will no longer haunt this place, and will be able to move on from the material plane.

### Clues and Theories

The characters can isolate and question each member, which can provide them with **clues** that will point them towards what happened, the dead will also provide **theories** as to how they think they died. Some theories can be debunked by clues. Both clues and theories will stimulate those questioned to provide more information about the information.

When the players 'discover' a new clue or theory, the DM should inform the players of this, allowing them to keep track of which clues are important, and which theories they can discuss with the Ghosts.

On page 93 DMs can read more information about **theories**. As well as this, if players come up with a **theory** that is included on the theory list, even if they don't have the evidence yet, this counts as the party 'discovering' that **theory**.

If a something is not included in a member of the climbing crew's "Clue"/"Theory" Responses' section, you can assume that they don't know more about it than the character's do, or have no opinion on it.

### A Little help?

All this information can be a lot for one DM to keep track of, and as such, there is an overall mystery synopsis written on page 85: **"What Really Happened"**. If taking in this part is getting overwhelming, it is recommended that this synopsis is the first thing that DMs read. This will allow you to improvise answers for your players, as well as having a firm grasp on where all the clues are headed, without having to understand who or where they came from.



# ALTUS: A CITY ALONE

## QUEST DESIGN EXAMPLE - TRAIN HEIST

In the Sixth chapter of Altus, the characters must assault a prison train racing through the city, in order to save one of the key characters, and the player-characters' friends, from execution.

As part of this heist, the players must convene with a number of other characters they have met on their journey, in order to come up with an effective plan to attack the train, using their own skills, as well as the skills of the characters they have enlisted.

While performing this heist a number of important narrative elements are thrown into play, with some enemies that have escaped the heroes grasp previously potentially recognising them on the train, or their allies being thrown into danger by a careless slip up.

As well as these things, the characters are also presented with a number of unexpected twists, (as all good heists are!) including passenger carriages being added to the prison train that the characters must avoid/traverse, to get to the main holding cells, and security forces, the likes of which the characters have never seen before.

On the right side of this page, we can see a detailed map of the train that the game master can use to describe the environments within the carriages they are traversing.

### T2. Passenger Carriage

As the characters move into the next carriage, read or paraphrase the following boxed text:

Pushing through the door into the next carriage, you see groups of people look to face you as you step in. Particularly the conductor on the other side of the carriage, his eyes scanning you as you enter.

The conductor is a **Iron Protector**(page 155) morphed to be a human. As he looks at the characters, he makes a Wisdom(Insight) check on the characters, against their Charisma(Deception) check. If they fail, the conductor barrels into 2 of the characters and pushes them into the previous carriage. As he attacks, his morph is removed, and see his usually 5 fingered hands transform into menacing chainsaws.

If the characters succeed against this check, the conductor does nothing to stop the characters moving throughout the carriage, and as they walk through, many of the passengers will look at the characters as they pass through, and will say one of the many things:

- "Are those the ones we heard about on the news? Look- Look away..."
- "I swear these inquisitors are getting worse by the day, worse than Magical Discovery from back in the day."
- "My local Mundane store has been shut down now! Where will I get my regular beef? I've never been a fan of Owlbear meat..."
- "I'm thinking of signing up for Inquisitor training, they're taking anyone these days..."
- "Personally, I don't mind mundanes being gone, I prefer being able to be out without my morph."

### T3. Secure Lockup

As the characters pass from their carriage to the next, read or paraphrase the following boxed text:

Pushing through into the next carriage, you see another steel-lined carriage, with a tough-looking Inquisitor stood staring at you.

The woman in this room is an **Inquisitor Enforcer**(page 149), who attacks the characters as soon as they enter.

**Treasure.** The **Inquisitor Enforcer** carries a pair of **Enforcer Gauntlets**(page 158) which add +2 to the wearers AC, Unarmed Strike attack rolls and damage rolls. They also have the added effect of *Beat Down* meaning that unarmed attacks made with these gauntlets are made with advantage when targeting a creature that is physically smaller than the wielder. Also within the carriage are a number of potions: 3 *Potions of Giant Strength*, 2 *Potions of Growth*, and 1 *Oil of Sharpness*.

MAP 7.1 THE PRISON TRAIN



# ALTUS: A CITY ALONE

## RESPONSE TO ALTUS

At the moment I am looking to get *Altus: A City Alone* published, and have been continually editing and adding to it, in order to make it a more appealing product for publishers.

Following submission of *Altus* as my practice based dissertation, this is what my dissertation tutor had to say about it:

“Your Dungeons and Dragons inspired book *Altus: Altus a City Alone* does read like an authentic D&D manual/guide/campaign book [...] In terms of narrative style it does absolutely fit into the standard notion of traditional [D&D RPGs]. There is enough uniqueness and distinctiveness about this work for it to be classes as a professional piece of work.

The overall narrative story arcs are structurally sound and also quite engaging [...] for the most part you have use the hero's journey and the monomyth as your framework to create an engaging and inspiring campaign.

[...] There is a a huge amount of work here to logistically trying to bring this all together is an outstanding feat,

This is an exceptional piece of work[...] there's not much I can say apart from I think this absolutely should be published and is good enough to be something that I would happily pay to play and read.” - Umran Ali, University of Salford.



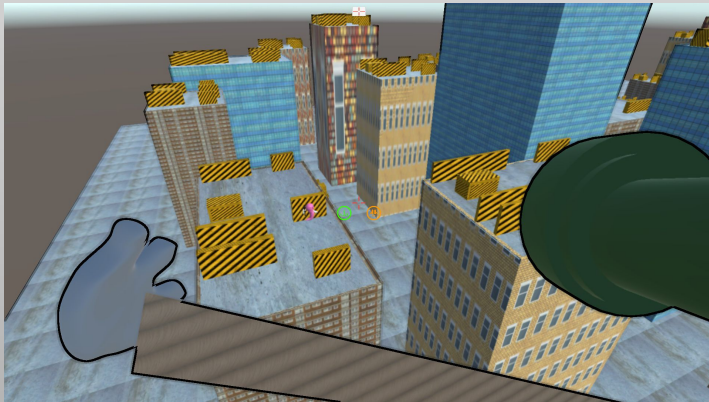
# WORMS: CITY ASSAULT

## TEAM17 SELF CHALLENGE

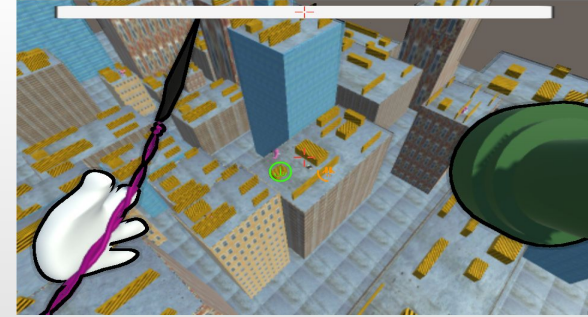
As part of a challenge to myself, and to create something impressive for this portfolio, I set out on making Worms: City Assault. A first person physics based shooter, which uses the classic Team17 IP *Worms*.

The challenge was to attempt to create a game, completely by myself, in just over 2 days, with *Worms: City Assault* being the result.

The game is an endless shooter, in which the player must eliminate as many enemy worms as possible before they die.



(If you'd like to play Worms:City Assault go to <https://oscarwrightman.itch.io/wormscityassault> and plug in the password "Worms".)



In creating this game, I was able to reinforce my ability to:

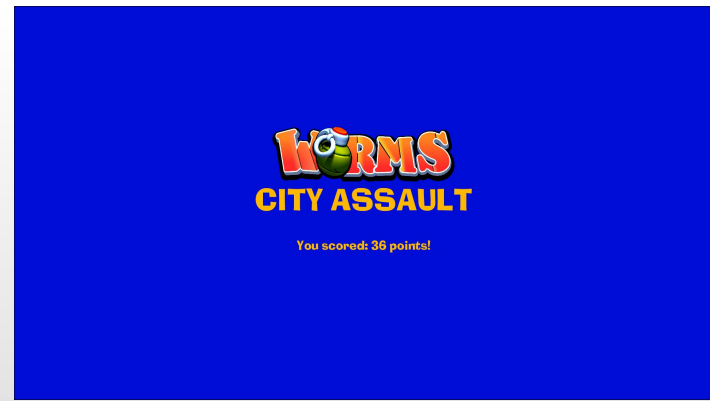
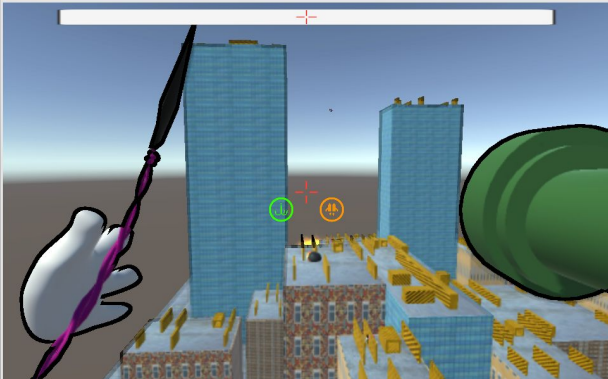
- Design tight, physics based mechanics that run along, and compliment each other.
- Foster powerful design techniques that motivate players to engage in all aspects of gameplay (Especially proud of the rope swing powering up the jetpack)
- Craft specifications to a tight deadline.
- Learn new tools, such as the shader graph to create the stylistic cell shading effect, and make confident new uses of old ones, such as the Raycast for Rope Swinging.
- Implement sound design to enhance the feelings of gameplay, in particular the "whoosh" of air that hits as the player travels quickly in their rope swing.
- Make use of fresh and complex gameplay systems, (in this case, the navmesh component which allows the worms to hide from the player, as well as chase them when they get close)

# WORMS: CITY ASSAULT

## WHAT WOULD I HAVE DONE WITH MORE TIME?

While I am pleased with what I accomplished with Worms: City Assault, there are many things which I would have improved upon, had I had the time to develop the game further.

Firstly, developing a better visual and sound clarity would have made the project feel a lot easier to understand. Creating bullet tracers from the Enemy Worms' Uzis to give a better insight into worm locations, giving inching animations to the worms movements as well as perhaps giving sound cues to make the world feel a bit more real, such as an impact noise when the player swings into a wall very quickly, or a yelp of pain from the worms as they are blasted away.



As well as the technical aspects, it also lacks the design implementation I would have loved to develop further. Mainly a more dynamic environment, allowing for players to swing from cranes and circling helicopters would have made for a much more exciting and diverse experience. As well as potentially adding props to the rooftops, boxes and barrels that could be blasted away with the enemy worms when shot, adding to the destructive satisfaction of the game.

Finally the aspect that frustrated me the most (and perhaps will too the player) was that the worms were able to shoot the player through walls. I had initially designed a raycast system to allow for the worms to shoot and gain less accuracy based on how fast the player was going, and also allow bullets to collide with walls and block them completely, but in later stages of development this system began to show flaws and had to be scrapped due to time constraints.

As it stands though, I am quite proud of Worms: City Assault, it granted me a great insight into my strengths and weaknesses in game design, and allowed me to develop every skill needed in design.

# THANK YOU VERY MUCH

If you're reading this, thank you very much, for looking of my work, and I hope you have enjoyed looking at the games and systems I have created!

Thank you!

Oscar Wightman.

