Maws of Puget Sound

GDD for DinoPunk by Kevin Bryan

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Revision History

1/19/21	Version .01	The initial writeup of GDD
1/25/21	Version .02	Meeting with Principal Stakeholders
2/22/21	Version .03	Prototype published on Itch.io
2/23/21	Version .04	Feedback on prototype

Game Overview

High Concept

In Maws of Puget Sound is an Action-RPG where you are a cyborg dinosaur fighting in the muck of Seattle to make enough cred to survive another day.

Synopsis

Maws of Puget Sound is an action-RPG where the player performs missions for questionable clientele that involve an abundance of violence, theft, and sabotage. The main focus of the game is on action-RPG combat, where the player rips apart their enemies.

The player needs to be able to:
1. Navigate a 3d space.
2. Identify enemies.
3. Kill enemies with up to 5 different abilities.
4. Accomplish mission objectives (activating objects and killing specific enemies)
5. Leave the environment.

Initial versions are focusing on a 3rd person controller, although an optional first-person mode may be added later in development and systems should be designed with that in mind.

At the easiest level, missions should be delivered by phone, a combination of subtitles appearing on the screen and voice over. If additional time is available, branching dialog with NPCs should be used to deliver mission information.

Missions should be:
1. Violent.
2. Desperate.
3. Morally repugnant, but with an option to try and do the right thing.
4. The right thing should be difficult.

Pillars

1. Quick combat.
2. The player should use a variety of abilities.
3. Enemies should make the player feel powerful.
4. While missions might have moral complexity, they should not treat morality as unobtainable.

Genre

Maws of Puget Sound is a Dinopunk Action-RPG.

Dinopunk is a subtype of cyberpunk where the recreation, cloning, and biological alteration of dinosaurs has become widespread. Like many classical forms of cyberpunk, much of the focus is on punk. This is not an ideal future, but one of moral and social atrophy, where care for the individual and the community has not kept up with the pace of technological advance and the few benefit from advances of technology while the many suffer their costs.

Action-RPGs are RPGs with more focus on real-time action, taking many aspects from shooters and related games and working them into an RPG storyline. Maws of Puget Sound incorporates character statistics and abilities to determine the effects of player actions as opposed to having set abilities.

Players navigate the action of Maws of Puget Sound as part of a greater story, fighting their way or running away from fights to advance the narrative.

Target Demographic

Maws of Puget Sound is aiming for a Teen rating and is targeted largely at male action-rpg fans from age 15 - 30. While not the main audience, RPGs also have a larger female audience compared to non-RPG titles, and effort should also be given to recruit and retain this audience.

Client Needs

The client wishes to reuse many of the assets, especially the character controller in later projects. The game should be scaled up to include different encounters as time permits.

Character controller needs:
1. 3rd and 1st person compatible
2. WASD or mouse navigation (hold left and right mouse button)
3. Camera drag movement (hold right mouse button)
4. Left mouse button selection and targeting.
5. Developer customizable 5 button action bar
6. Action bar blocks usage based on energy, cool down, and charge.

Additionally, while not part of the minimum deliverable the client would like missions to incorporate branching dialog, both on the part of the mission deliverer, and from targets of the mission.

Project Goals

Maws of Puget Sound aims to make a single playable mission in a downtown environment based on Cal Anderson Park. The mission shouldn't require the player to kill enemies to complete, but they will have to navigate violence to achieve their objectives.

Combat with the player character should be enjoyable and make the player feel powerful. Enemies should feel interesting, though not necessarily challenging. If possible, dialog should be used to make the world more fleshed out.

Principal Stakeholder Meeting

We met with Principal Stakeholder Aaron Roxby on 1/25. Aaron's main concern was the scope level for this project. While making the character controller was potentially doable, that and level design and the plans for enemies would take more time than was available for the project. Aaron suggested that just getting the character controller working as proposed would more than satisfy the requirements for this phase of production.

The scope of the project is being reduced in response. The character controller is the main priority, with a goal of getting it fully functional, including the action bar movement and all proposed character abilities.

Prototype Feedback

The overall response to the prototype was confusion. It was unclear to testers what was causing them to gain charge and how much charge they had. Inconsistent firing with the revolver VFX was making it unclear that a revolver was being fired to charge up. Firing with raycasts provided less player feedback.

What the other abilities did was unclear. A player healthbar would help show when player has taken damage and when they heal. Enemy attacks would help show some level of risk. A more fleshed out environment would help out more with jump and maneuver testing. The game also had a series of bugs that didn't show up in editor testing.

Navmesh would cause partial crashes on destroyed enemies causing some of the code to not fire properly. The collision checking and raycasts were also inconsistent the longer the game was played causing repeated frustration.

Response to Feedback

The first change made to address feedback was to turn the revolver firing ability into a projectile system. The projectile would be instantiated by the revolver script, loaded up with information from the revolver ability, and then fired off. Upon contact, it would then create a charge for the player not before. This made charging up more difficult, requiring actual aiming and contact with the enemy.

During testing of this feature before a kill-on-contact script was added to the bullet, unusual behavior was shown where the bullets would bounce and ricochet potentially hitting multiple

enemies before expiring. The kill-on-contact script was intentionally not added and the behavior was left in.

Player health bar, energy bar, and ammo bar were added to make the game clearer to use. Enemies had a simple attack script added that shot bullets at the player, giving a player an opportunity to use both their shield and their healing powers.

Basic terrain was laid out with some obstacles on the map to allow for some gameplay. Scale Estimations were drastically off. The default unity terrain has a width of 1,000 units, at the scale we were operating on 200 meters would have been closer.

The terrain was adjusted down to 300 by 900 meters.

Mechanics

Player Abilities

The player doesn't use energy for their attacks but instead uses a charge-up system, where basic attacks generate charges which can then be spent on more powerful attacks.

Control system:
Left Click: Shoot your revolver, gain a charge (after six shots you have to wait to reload)
1. Block / Retaliate
2. Claw frenzy (attack all enemies in a cone in front of you)
3. Hook kick (Knockback that does more damage if the target hits terrain with the knockback)
4. Bite! (Single target damage, heals self. Can be used on corpses)
5. Death Laser (Big death laserbeam that does continuous damage to all targets in a line and sets them on fire)

The player is intended to be a mixed ranged-melee combatant, who starts out at range charging up with weak revolver attacks, before either killing entire groups of enemies in melee or killing enemies one at a time while healing up.

Enemy Reaction

Enemies shouldn't just rush towards the player character to attack instead they should alternate between the following:

1. Approach the player and attack.
2. Retreat to nearest ally and attack (if they have ranged)
3. Stop and threaten the player (roar, taunt line etc)

Also, each enemy should have a fear rating pre-set.
All player attacks should do fear damage in an AOE (with some random element to them)
When an enemy's fear rating is reached they should try and run from the player.
Some enemies should have no fear rating and never flee.

Dialog

If time permits, Maws of Puget Sound will feature multiple dialogs. The player can talk with their quest giver, with a neutral npc guide, and finally with the main antagonist. These conversations should give more information on the context of the mission, and allow for alternate ways to complete the mission.

These will use the Dialogue System for Unity to cut down on development time.

Mission Structure

The Mission

Scarlet Maple is a cyborg velociraptor mercenary detective down on their luck. With the rent due in a few days Scarlet has few options when it comes to jobs. They are given a job to pick up a stolen package from Cal Anderson Park and return it to their employer. The package is being traded at the park between two different Non-Governmental Organizations (NGOs).

Both NGOs suspect betrayal and are on high alert. While Scarlet moves in to pick up the package, Cal Anderson gets raided by the SPD clearing out unhoused encampments, but they aren't picky about their targets, fully willing to attack NGOs, the unhoused and Scarlet alike.

Scarlet has to get the package and get out, but how will she deal with the NGO and the SPD?

Objectives:
1. Get the package.
2. Escape.

Complications:

1. NGOs trading the package expect violence, both from each other and outside sources.
2. NGOs may fight each other if the wrong thing happens.
3. The SPD is eager to attack everyone.

Story and Characters

Scarlet Maple

Scarlet Maple is a frequently unemployed freelance mercenary operating out of the Fremont Demilitarized Zone. They are plagued by constant bills, struggling to stay housed as well as acquiring medicine both to avoid cybernetic implant rejection, and to protect themselves from seasonal dinophage infections.

Scarlet tries to avoid politics and political missions but constantly finds herself a victim of politics. Many of their missions directly benefit their oppressors, although the player can still try and benefit the common hybrid instead.

Rocky

Roderick "Rocky" Ace is a retired prizefighting Pachycephalosaurus who works as a fixer in the Capitol Hill region. While he has a reputation for ferocity and thoroughness, he is very bad at checking out the identity and motives of those who he represents and is often picked as the honest face for seriously deceitful shit. He doesn't care to examine too closely as long as he keeps getting paid.

Rocky hired Scarlet to pick up the package and failed to find out it was being held by NGOs ahead of time, and even if he did, he probably wouldn't have told her. This sort of thing is of course covered by the two dollars an hour hazard pay that he offers on all jobs.

Story

Scarlet needs money, Rocky has a job that nobody else will take. Scarlet reluctantly accepts, despite being burned by Rocky on past jobs. Rocky says that the package was stolen and needs to be retrieved and that it will be at Cal Anderson Park. The stolen line is bullshit but he hasn't bothered to investigate and find that out for sure.

Two NGOs are exchanging the package, one side paying for it with cash, insulin, and medical supplies. Both NGOs don't trust the other and suspect that they will be robbed and both groups have shown up armed.

The Seattle Police Department arrive midway through, their stated objective is clearing improvised encampments throughout the park, though they are eager to attack anyone in the park itself, and wouldn't mind picking up the package and using it as a justification for future violent purges of the park.

Level

Level Flow

The player enters through the south side of the park, seeing people playing tennis and loitering on the baseball field, using the park without impediment. After they leave the baseball field and reach the bathrooms, they see the start of the tents and improvised encampments. While they have to navigate through the encampment, nobody directly attacks them or hinders their movement.

The NGOs are making the exchange on the bridge of the Reflecting Pool.
The player is called out by lookouts from either NGO.
They can attempt to approach with diplomacy, or kill or bypass the lookouts.

If they target primarily one group of NGO members, the other group will think they are betrayed and turn to attack their rivals.

The actual package is being held on the bridge over the reflecting pool, once the player reaches the bridge, the SPD moves in from the East and West sides, using gas weapons and nonlethal ammunition (that still does full damage to the player).

The easiest way out is to move further north and try and hit Denny Way, however, the player can exit the level by moving south instead. While the police presence is heaviest around the bathrooms, once they get to the baseball field, there is no police presence, simply parkgoers gawking at the events in the rest of the park.

They can leave south through East Pine street with nobody trying to stop them.

Prioritized Feature List

1. Reusable player controller.
2. Player and enemies able to damage each other.
3. More complicated enemy decision making.
4. Voice over and subtitles with mission information.
5. Unity Dialog system dialog for Rocky, Unhoused people, and NGO members.
6. Additional side quests in Cal Anderson Park.
7. Fancy VFX for player attacks.

Art Style and Aesthetic

Control UI:

The player Hotbar should be minimal, showing the icons of their five abilities, as well as their availability in a condensed form. The current ammunition of their revolver and their health can be shown around their targeting reticule.
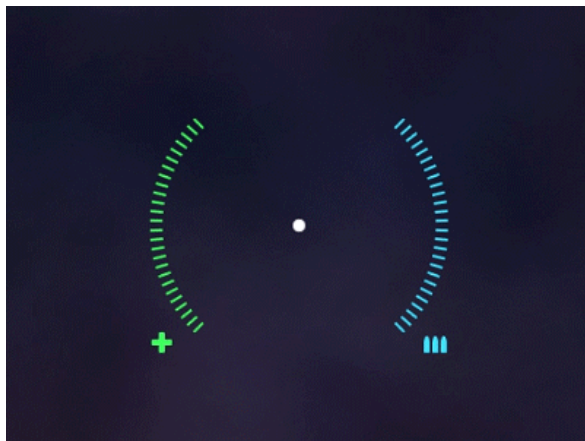
Park Aesthetic:

Cal Anderson Park and the surrounding area should resemble the Santa Monica hub from Vampire the Masquerade Bloodlines. With a claustrophobic environment and exaggerated decay. However, instead of yellow and faded neon lights, the lighting should focus more on blues and pinks, matching a more vaporwave style.

Instead of an excess of Japanese writing and symbolism, the writing and symbolism should focus on dated millennial pop culture.
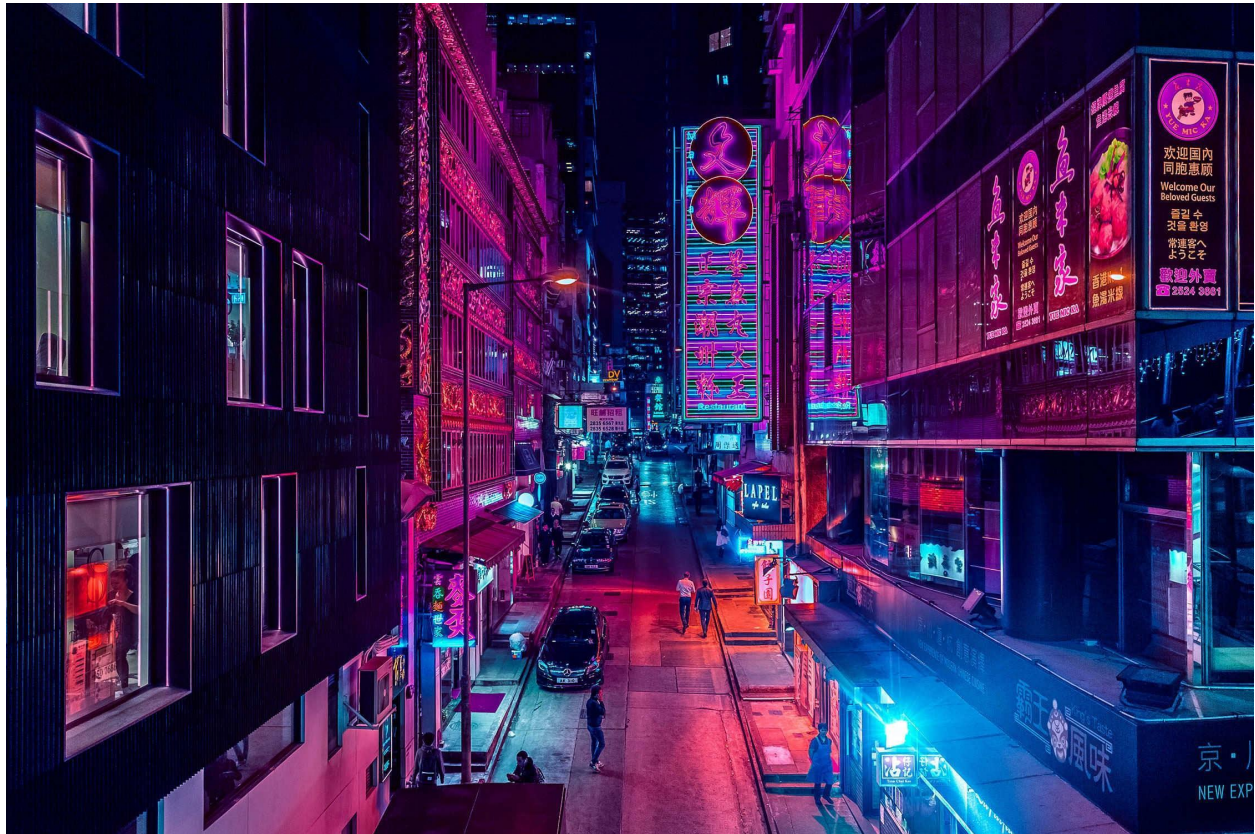
Pipeline and Priorities

Cal Anderson Park was chosen so the vast majority of the environment could use the Unity Terrain system, to lower the amount that outside models would have to be made.

The main centerpiece of the reflecting pool... the cone fountain thing, should be easy to model:

The other end of the reflecting pool is much less distinctive and might be substituted with other assets if necessary.

Trees will use existing unity assets to the extent possible, and most of the fountain can be blocked out with basic primitives. If there is extra time, the entire reflecting pool and bridge can be modeled directly.

Audio

Maws of Puget Sound will use a Vaporwave soundtrack if one can be found with a compatible license. Enemies and the player will have rotating barks that will be shouted out in combat. Ambient noise will be used both for the more pedestrian and more residential sections of the park.

Combat will go for more over the top exaggerated tearing and shredding sounds that somehow end up louder than guns firing throughout the rest of the combat.

Everything the player does should sound amazing and impactful. Things the enemies do should have a notable enough sound to be reacted to, but shouldn't be as cool as the player is.

Asset List

Minimum Deliverable Product

Programming

1. Player controller.
2. Enemy and Player Health systems.
3. Player can attack enemies.
4. Enemies can attack players.
5. Package can be picked up.
6. Player can exit the level.

Art

1. Player model.
2. Enemy model (with palette swap for other enemies)
3. Player attacks basic VFX.
4. Enemy attacks basic VFX.
5. McGuffin Model.
6. Park Landscape in Unity.

Audio

1. Soundtrack.
2. Player hit sound.
3. Enemy hit sound.

4. Player attack sounds.
5. Enemy attack sounds.

Schedule

Week 1	1/18 - 1/23	Develop GDD and send out for peer review	GDD Developed
Week 2	1/24 - 1/30	Develop Player Controller	
Week 3	1/31 - 2/6	Block out Cal Anderson and Unity Terrain it	
Week 4	2/7 - 2/13	Add enemy behavior; package pickup	
Week 5	2/14 - 2/20	Make and integrate models	
Week 6	2/21 - 2/27	Iterate add dialog if time allows	
Week 7	2/28 - 3/5	Iterate	

Release Details

Editor

Using Unity 2019.3.0f6, with URP.
Additional components:
- Shader Graph
- VFX Graph
- TextMeshPro
- ProBuilder

Addons:
- Dialogue System for Unity

Platforms

Maws of Puget Sound is being released for PC, with potential further release on console.