The Phantom Lands Game Design Document

A survival-intensive experience, set in primal fantasy world where it's up to the player to find and create magic, instead of conventional wood and stone tools to tackle problems their own way.

Design Pillars

1) Survival
   The player is fighting against the elements of the world, which will cause them to die if ignored.
2) Magic
   Coming to grips with unknown elements presents fresh challenges which takes the scope beyond survival. Methods of survival and problem solving are changed through the lens of fantasy.
3) Upgrading
   The player must use the map to gather and allocate recourses to improve their standing within the world as it gets tougher, which changes their gameplay experience.
4) Explorative Mystery
   Much like the player becomes familiar with their environment and systems through exploration, they will unravel the narrative mysteries of the world, and piece together what happened and their role through exploration. Without a compass or map, they will find their own approach to facing the world.

Gameplay

Player Character and movement

- Basic Movement – Movement relevant to camera; forward analogue movement travels in direction of camera, backward moves player character in opposite direction while retaining direction character is faced in. Movement without moving camera = strafing.
- Run – Basic movement at full speed without sprinting. Generates 'Alert Noise' (see: pg. Animal NPC Behaviour States)
- Walk – Basic movement at about half speed. Allows player to approach friendly animals.
- Sprint – Sprint can only be performed while running forwards while standing. Causes more noise than basic movement. Generates Alert Noise.
- Crouch – Lowers height of player character. Moving while in crouch decreases sound player character creates compared to basic movement. Allows player to move at near-run speed *without* generating Alert Noise.
- Jump – Lifts player into air, momentum based. Jumping from sprint = further jump distance. Jumping can be performed from, and does not take player out of, sprint or crouch.
- Cast – Casts whatever spell is currently equipped.
- Spell Select – Cycle currently equipped spells.

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Game Loop

Gameplay is split into Daytime and Night time. Between the two times of day, NPCs and their behaviours change, and so does the world, to which the player should adapt accordingly. Night time is more dangerous than daytime, and so the player should want to maximise their productivity during the day, and therefore learn to become more efficient at playing so that they can get more done while they still can, before having to rest to replenish stats. Because Night time is more dangerous, and the player would therefore inevitably achieve less, this makes it the optimal time of day to rest.

- Daytime – 12 hours in-game time, 20 minutes. 1 hour in-game = 1 minute 36 seconds
  - Hunt and search for water to maintain stats
  - Explore for magic areas and artefacts + material resources
  - Make a shelter for the evening (constant or timed shelter?)
- Night time – 12 hours in-game time
  - Make some spells (game time still runs while this is happening – better to do it inside at the end of the day)
  - Sleep
  - Search for high-risk high reward night time specific animals/magic things?

In the world, the player will find runes which grant them spells. Each rune has a dungeon to go with it, and the player can complete the game and find out all there is to about the world through these dungeons; therefore, dungeons provide a narrative structure.

As the player is finding spells and dungeons, they will have to keep themselves alive. The more time progresses, the more the world is overrun but corrupted plants which make traversal harder for the player, and make the world less aesthetically pleasing, meaning the player will also want to spend some time clearing these plants using Necroball and Axewind. Also over time, the player base will be attacked, meaning the player will have to repair it.

Survival and Stat management

Dependant variables: Health, Constitution, Hunger, Thirst
(These systems can be altered to make the survival loop more or less punishing. They can be altered with stat changes or inter-system interaction, e.g. the relationship of Constitution and Health).

- Health bar:
  - Determines: How many hit points player character can take before death.
  - Replenished by: Spells, sleep, time, potions
  - Health regeneration reduced by:
  - Immediate Health reduced by: Animal attacks, fall damage, spell failures (caused by casting without appropriate constitution reserves left)(?), 'Dangerous' hunger state.
- Stamina bar: Represents energy to perform physical abilities.
  - Replenished by: Time, sleep, potions
  - Immediate constitution reduced by: Sprinting, Hitting, spell casting (if no magic bar)
- Magicka bar: Represent Magicka stores left to perform magic-based abilities.

- o Replenished by: Time, sleep, potions to mitigate maximum magicka penalty the next day. Sleeping on a full stomach mitigates this penalty even more effectively.
- o Magicka regeneration reduced by: Tiredness
- o Immediate magicka reduced by: Spell Casting
- **Hunger state:**
  - o Determines: Stamina regeneration
  - o Replenished by: Hunt for food to collect it. Eat food to maintain health bar.
  - o Reduced by: Cold/rain weather (logic = body spends more energy maintain body heat, tougher movement in rain because clothes are weighed down (but this logic has no impact on gameplay)), not eating for five (?) hours
  - o Hunger States:
    - Full: No penalties
    - Hungry (five hours no food): Small Maximum Constitution penalty
    - Ravishing: (ten hours no food): Medium Maximum Constitution penalty, Small Maximum Health penalty
    - Dangerous (fifteen hours no food): Large Maximum Constitution penalty, medium Maximum Health penalty.
- **Tired State:**
  - o Determines: Magicka regeneration penalty
  - o Replenished by: Sleep
  - o Reduced by: Staying awake for 18 hours
  - o Tired states:
    - Well Rested: No penalty
    - Tired: Small Max Constitution penalty
    - Unrested: Medium Max Constitution penalty
    - Delirious: Large Max Constitution penalty

Magic and it's uses

Magic is cast by the player using either the left or right hand, or both. Player can no longer cast when Magicka Bar is at zero. Attempting to cast when it is at Zero will hurt the player's health points.

- **Destruction Class**
  - o **Axewind** – A continuous area of cutting wind cast in front of the player which extends outward as long as cast is held. Does not travel.
  - o **Necroball** – Projectile of which is smaller in area than Axewind but travels forward in an arch when cast.
  - o **Life Drain** – A continuous area extends outward as long as cast is held. Will stun enemies for half a minute, drain their health to add back to the players, and disabels the effected enemy from dropping any resources when it does die.
- **Life Class**
  - o **Armour** – a protective layer which negates slowed movement caused by corrupted plant spawn, protects against fall damage, and is a continuous cost as long as the player castsit.

- o **Teleportation** – Player can set a teleport ring onto the ground, which when activates will take player back to base. From base, player can teleport back to teleportation ring. One hand casts one ring, the other hand casts a separate one, for a total of two player-made rings. Two will suffice accounting for word size. When two are active, player can choose upon interaction, of the three rings, which of the other two to teleport to. As long as they are active the magic is capped for their activation. Recasting undoes the ring, and casting yet again will remake the ring. The player will be properly informed via UI if one is currently set up, and if it has just been destroyed or made.
  - o **Guardian** – Conjures a friendly aggressive NPC made of Ice who targets the most dangerous (high damage) enemy, and the enemy targets the Ice Guardian. Lasts for two minutes and has a limited Health pool.

- **Mending Class**
  - o **Heal** – Restore player character Health points continuously as long as cast is held.
  - o **Repair** – If any structure the player has placed has been damaged over time, but is still up, the player can restore its condition.
  - o **Build** – Any recourses the player gathers can be pooled into an inventory. When the player then casts Build, they can select structure type they'd like to conjure, see an outline of it for its placement, and then place it on any valid flat ground surface.

Upgrading:

The player will be able to find a gem recourse which they can then allocate as they wish into different potency upgrades. The player will have to deposit this crystal recourse into their base camp inventory or keep them in their own player character inventory, from both of which they can use the Arcane Workshop to use assign their crystals into potency upgrades.

Potencies:

- **Strength** – Output stat increase e.g. damage output/healing done
- **Efficiency** – magika used
- **Effect** – Increase area of effect/time spawned

Potencies come in tiers which take either another rune or more crystals to use. More runes would be better for a continuous spell upgrade loop throughout the game, and crystals would be better for an endgame process.

Resource Gathering

In order to improve the base camp, the player can gather wood and stone from the world. These items go into player inventory, which is limited. In order to use and keep recourses, the player can drop off recourses at their base camp, which has an inventory unlimited in size.

When enough of these resources are pooled at the base camp, the player can upgrade the camp to a superior level at a cost to those resources.

Wood can be gathered from trees, which can be destroyed using Axewind and Necroball.

Stone can be gathered from boulders, which can be destroyed using Necroball.

Base camp should require a lot of resources to upgrade as they're very common throughout the world and will help naturally extend play time (e.g. player could dedicate a day of game-time to resource collection).

Crafting

The player can find potion recipes in chests.

Potions can be made with loots from chests and creature drops, if a corresponding recipe has been found. Player can also craft armour using recipes.

World

Reasons to explore

- Spells
- Spell Upgrades
- Corruption spawn
- Resources
- Dungeons - Story elements
- Chests
- Legendary creatures

Areas

- Tutorial – Small area which the player cannot leave until using the repair spell on the bridge.
- Plateau – Home area for player which provides good view of the rest of the world to help them plan where they will go.
- Forest – Larger, denser trees with tall grass.
- Blue Hills – Rolling hills with blue grass and little trees and boulders.
- Mountain Range – Mountain range with a path leading to the peak and an alternative path leading to a dungeon
- Southern region – Civilisation ruins
- Lava Parkour – an area with more lava surface area than solid ground.
- Volcano – Area with old civilisation ruins and a path round a volcano landmark into the top with an area within.

Animal NPC Behaviour States

- **Idle** – An animal either standing, sitting, moving slowly, looking around or eating, just doing its thing.
- **Flee from Attacker** – Animal will run in the opposite-most direction from their attacker. Animal will perform a Flee Detection Zone Check after fleeing a certain distance, and stop fleeing if attacker has exited their Detection Zone (by moving out of range or dying). Animal will zig-zag when fleeing (while retaining same general direction) to make damaging it more difficult.
- **Flee Random Direction** – Activates when Animal will run in random Direction. Animal will perform a Flee Detection Zone Check after fleeing a certain distance (if damage effect is persisting, Flee Random Direction persists until damage effect ends). Animal will zig-zag when fleeing (while retaining same general direction) to make attacking it harder.

- **Friendly** – Animal will follow player. 'Aggressive' animal types will aid player in combat.
- **Aggress** – Animal will close distance to prey and attack them when within distance. Animal will exit Aggress state when player has exited their Detection Zone (by fleeing or dying)

General Rules + Definitions

'Detection Zone' = An invisible spherical area around an animal in which certain player activity will change Animal NPC behaviour state. Player activity within Detection Zone will activate 'Detection', which will affect animal NPC behaviour. Making too much sound (defined by 'Alert Noise') within Detection Zone = Detection. Detection Zone increases when NPC enters Aggress behaviour state.

'Vision Cone' = 3D cone within Detection Zone in which Detection will activate if animal line of sight meets player character mesh. Vision Cone is obstructed by solid objects. Detection based on line of sight in addition to Alert Noise.

'Alert Noise' Actions which cause noise detectible to enemy's Detection Zone (Walking, sprinting, jumping + spell casting. Crouched movement allows player to move without generating Alert Noise).

If an Aggressive NPC Type attacks prey, it's position is by default always detectable by the hurt creature.

Aggressive NPC Types do not aggress or cause Aggress state in each other.

Friendly and Fearful NPC Types do not cause Detection in each other's Detection Zones.

Animal NPC Types

- **Friendly** – Willorin.
  NPC which is friendly won't Flee from a player not generating Alert Noise, nor will Flee if player enters their Vision Cone, allowing player to approach.
  - o Constant Check for damage.
    - ▪ Is source of damage causing detection (is it an Aggressive NPC or player in Vision Cone/generating Alert Noise in Detection Zone)? If yes, enter 'Flee From Attacker' state. Flees from damage source direction (e.g. attacking player or creature). If no, enter 'Flee Random Direction' state.
    - ▪ Are there more than two detectable aggressors? (e.g. two Aggressive NPC Types in detection zone/player causing damage and detection + Aggressive NPC Type in detection zone)? If yes, enter 'Flee Random Detection' state.
    - ▪ After Detection Zone is clear of Aggressive NPC Types and player for 6 seconds, return to 'Idle' state.
  - o Constant Check for stasis to interrupt current behaviour state and initiate Flee from Attacker after un-frozen.

- **Fearful** – Kitsolope.
  NPC which will enter Flee From Attacker Behaviour State from player character if player or Aggressive NPC Type activates Detection of any kind.
  - o Constant Check for Detection Zone alert.
    - ▪ If yes, enter 'Flee From Attacker' state.

- ▪ If no, resume current behaviour state.
  - o Constant Check for damage
    - ▪ Is source of damage causing detection (is it an Aggressive NPC or player in Vision Cone/generating Alert Noise in Detection Zone)? If yes, enter 'Flee From Attacker' state. Flees from damage source direction (e.g. attacking player or creature). If no, enter 'Flee Random Direction' state.
    - ▪ Are there more than two detectable aggressors? (e.g. two Aggressive NPC Types in detection zone/player causing damage and detection + Aggressive NPC Type in detection zone)? If yes, enter 'Flee Random Detection' state.
    - ▪ After Detection Zone is clear of Aggressive NPC Types and player for 6 seconds, return to 'Idle' state.
  - o Constant Check for stasis to interrupt current behaviour state and initiate Flee from Attacker after un-frozen.
- • **Aggressive** – Sotor + Harpstrich.
  An NPC which will enter Aggress Behaviour State against player character or Friendly/Fearful animals if player activates Detection of any kind.
  - o Constant Check for damage
    - ▪ Is source of damage causing detection (is it an Aggressive NPC or player in Vision Cone/generating Alert Noise in Detection Zone)? If yes, enter 'Aggress' state. If no, enter 'Flee Random Direction' state.
    - ▪ Are there more than two detectable aggressors? (e.g. Player causing damage and detection + Ice Guardian in detection zone)? If yes, enter 'Aggress' state in following priority: Ice Guardian > Player.
    - ▪ After Detection Zone is clear of Player/Ice Guardian for 6 seconds, return to 'Idle' state.
  - o Constant Check for damage HP threshold
    - ▪ Is health below threshold? If yes, check Detection Zone. If no, resume current behaviour state.
    - ▪ When health is below threshold and performing Detection Zone check, is player/Ice Guardian in Detection Zone? If yes, enter 'Flee From Attacker' state, if no, or multiple aggressors, enter 'Flee Random Direction' state.
  - o Check for player, Ice Guardian, fearful + Passive creatures while in Idle State.
    - ▪ Are player/Ice Guardian/fearful/passive creatures in Detection Zone? If yes, check for multiple targets. If no, resume current behaviour state.
    - ▪ Are there more than two creatures causing in detection zone? (e.g. Player causing detection + Passive creature in detection zone)? If yes, enter 'Aggress' state in following priority: Ice Guardian > Player > Friendly NPC Types > Fearful NPC Types
  - o Constant Check for stasis to interrupt current behaviour state, then resume it after un-freezing.

Menus
- • Main Menu

- o New Game – Launch the game from the beginning
- o Load Game – Choose a save file to load into
- o Other
  - A menu listing all the controls for the player to see.
  - Bestiary: A navigable collection of creature descriptions and relevant art updated as the player finds them throughout the world.
- o Quit to Desktop – Quit the application
- o Credits – Load credits scene
- Pause Menu
  - o Resume – Resume Game
  - o Other
    - Controls
    - Bestiary
  - o Quit to Main Menu
    - If you haven't saved since pausing, game asks if you want to save first.
  - o Quit to Desktop
    - If you haven't saved since pausing, game asks if you want to save first.
- Inventory
  - o Function: The purpose of the inventory is such that it must allow the player to store, view transition and use objects.
  - o Form: Player can toggle it on and off and within view different tabs: Consumables, Resources.

Controls
Mouse & Keyboard
- Cursor: Camera movement
- WASD: Forward/Backward/Strafe Left/Strafe Right
- Shift + W: Sprint
- Ctrl: Crouch
- Spacebar: Jump
- Caps Lock: Walk toggle
- Left Mouse Button: Cast Left Hand
- Right Mouse Button: Cast Right Hand
- Mouse Wheel: Scroll left hand spells
- Mouse Wheel + Q: Scroll right hand spells
- F: Inventory

Controller
- Right Analogue Stick: Camera movement
- Left Analogue Stick: Forward/Backward/Strafe Left/Strafe Right
- Left Analogue Stick + Forward movement: Sprint
- B: Crouch
- A: Jump
- Left Trigger: Cast Left Hand
- Right Trigger: Cast Right Hand