A Fistful of Bones

Game Design Document

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A trickster skeleton seeks revenge, recovers stolen bones and rolls like a tumbleweed in this Western-influenced stealth puzzle game.

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10/16/18 - Game Flow & Level Design

Overview

Influences

Western Genre (Movies)

The Western Genre is a convenient fit for some of Fistful of Bones' mechanics, such as turning into a skeletal tumbleweed. As such, other elements of the game emerged naturally from this genre. The revenge story, the gang of outlaws, and the game's title all come from this genre.

X-Com Series (Game)

Credit to the X-Com Series for having tactical, grid-based gameplay. The series is fairly popular, and it would be foolish to ignore polished design elements that suit a grid-based game in general. In this case, the displayed path of the player character's movement before the action is carried out or confirmed. Other grid-based strategy games have done this as well, but it's a convention worth mentioning.

Xylophones for Walking Bones (Trope)

Skeletons make xylophone noises when they move. It exists in animation, a few games, and lightens the mood for a game where the player character is a revenge-seeking skeleton. It also has interesting gameplay implications for stealth purposes with the noise itself.

Trickster Archetype (Mythology)

The player character isn't overpowering the targets of revenge, but outsmarting and frightening them. There are supernatural elements to the gameplay with wind-control and of course, the "living" skeleton.

Design Pillars

Accessibility

- Alternate Control Scheme(s)
- Saving Mid-Level (Difficulty Setting)
- Turn-Based Gameplay
- Deterministic Gameplay

Stealth

- Vision
- Sound
- Distractions

Wind Interactivity

- Player Movement
- Environmental Effects

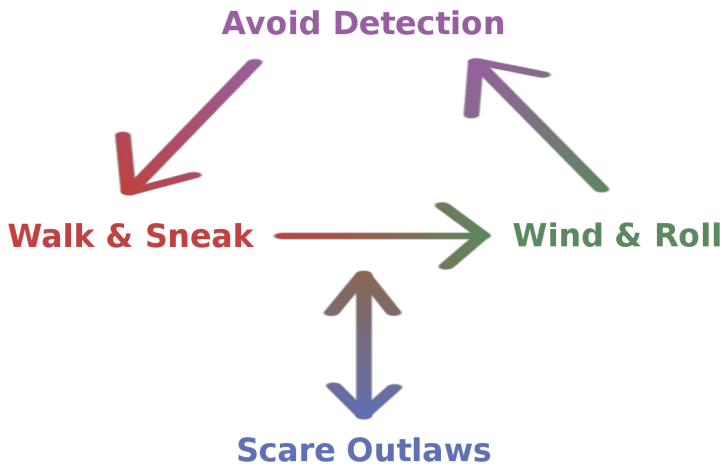
Gameplay Hooks

- A combo of wind-based puzzles, and turn-based stealth gameplay
- A light-hearted, non-violent story of a trickster seeking revenge

Gameplay

Core Game Loop

Player Turn



Dynamic Environment

- Environment responds to newly created wind (in appropriate direction)
- Or environmental entities slowly return to original position(s) as wind dies down

AI Turn

- AI or Hostile entities have their turns taken in a set order (indicated by a small number)
- Hostile Entity responds to immediate environmental entities affecting them (smoke, etc.)
- Or Hostile Entity responds to sight and sound of player
- Or (if Entity is last one standing) Entity seeks a “safe” location (indicated)
- Or Hostile Entity resumes default behavior

Novelty

Stealth games have traditionally contained puzzle elements, and puzzle games have had wind mechanics in the past, but never before have the two met. While only one way the player interacts with the game world, wind interactivity and the setting should set Fistful of Bones apart from other offerings, particularly within the stealth genre.

Game Flow

Challenges

Players face challenges due to puzzle design: when to approach outlaws, when to hide, as is fairly standard in stealth games. Mechanically, players have interesting decisions related to wind control, as it necessarily affects the environment and moves their character with the same action. Conflict occurs when players would like to do one or the other, but not both, or in differing directions so resolving that conflict could involve some planning on the part of the player.

Additional challenges are presented unique to the scoring system involving the the usage of bones to activate wind control for gameplay advantages at the cost of potential score multipliers. Importantly, short of an undetected “perfectionist” mode difficulty being available, and a likely score boost from remaining undetected in that mode and otherwise, penalties for detection could include losing a single bone in the charge system, or none depending on design choices relating to difficulty.

Pacing

With optimal pathing through a level from one outlaw to the next, it shouldn’t take more than 5-7 rounds to approach and scare a bandit. Possibly this timing is too long and will need testing and adjustment. Situationally, as might be the case with wind-usage, it will take fewer rounds. It may take more time when needing to hide, when pathing wasn’t optimal, when the last remaining outlaw has run to a more secure location, or when other small mistakes are made.

The game should not feel like 1 step forward and 2 steps back in normal difficulty settings. In most cases, the player should feel like they are making progress, that eventually all outlaws will be frightened. Because of this, the player shouldn’t need to remain hidden for very long.

Pacing in the “endgame” (one outlaw remaining) should be significantly faster as most bandits will cower and remain alert in one area without need for significant movement, pathfinding, or other entities having a turn during the round. At this point, player movement/turns will take up the vast majority of the time during this stage of the game so the player isn’t waiting around for no reason as they’re approaching the final objective in the level.

Level Design

Map Characteristics

Maps are bounded within a certain size and contain environmental (passive), and outlaw (hostile) entities in addition to the player and obstacles such as cacti, walls, rocks, and other structures. While attention to realistic structure placement, IE: this looks like a campsite, should

be maintained, as it is a puzzle game, creating interesting puzzle decisions and good puzzle design is key. Whether this is making a path 2 squares wide instead of 1, or other such level design decisions in a particular instance could be essential to creating a good experience without regard to realistic object placement.

Emergent & Deterministic Gameplay

Design philosophy for emergent gameplay is that interactions between outlaw movements, responses to player sounds, and the combination of flower pollen, smoke, and bees will create interesting and varied gameplay patterns as a player progresses through a level.

Deterministic gameplay philosophy that as a form of puzzle game and being turn-based, players following the exact same order of actions will result in the exact same sequence of events on the map involving outlaws and environmental effects. Players can definitely find a written guide of instructions to beating a particular level, and that option is available to them although it would eliminate much of the challenge. In this case, while following steps precisely results in the same thing, deviating at all should result in perhaps similar situations but requiring players to understand gameplay mechanics to make decisions on their own in order to progress through the level.

Hostile Elements

Pacing Bandits

Entities that follow a set path (normally) back and forth or in a regular loop of some kind. They can deviate from their path to investigate noises or to escape environmental effects, but return to the spot they left the path from (or the next closest path tile if available). If they are blocked, perhaps they stand scratching their head in confusion. They can be ambushed by the player using an ambush-styled action around corners or facing towards and perpendicular to the path the pacing bandit is following (bandit looks forward and doesn't check corners that they aren't planning to walk around so it goes "enter the space" then "turn.")

Idling Bandits

Idling bandits stay put in a single space or general area until moved by an outside force, often an environmental effect or entity. They can be either distracted or alert, and alert idling bandits will also respond to noise and investigate. When caused to move by an environmental effect, they necessarily need to wait for the effect to resolve before returning or will move to a different area entirely to begin idling again.

Passive Elements

Intoxicating Flowers

Flowers that release an intoxicating, sleep-inducing pollen that can be blown towards outlaws to knock them out. (Perhaps bandits cannot be frightened while sleeping until they wake up). Pollen takes a little while to disperse after being blown somewhere, so bandits can't be woken until then and will naturally remain sleeping for a short while afterwards.

Campfires & Smoke

Campfires can set clothes alight, causing bandits to run to the nearest source of water (heedless of their surroundings), or set rough cloth shelters or wooden structures alight, causing nearby bandits to seek water to douse the flames.

Smoke will cause swarms of bees to disperse, or get into the eyes of outlaws (perhaps only facing the direction of the smoke), causing them to leave the area coughing and rubbing their eyes. At this point they cannot see, and perhaps cannot hear. This is relatively short-term compared to pollen or swarms of bees.

Bee Hives/Swarms

Bee Hives can be knocked out of trees (when hanging from a branch) creating a swarm of bees around the immediate area. Bees will attack and swarm nearby bandits, chasing them until dispersed by smoke or the bandit escapes into water (or runs far enough away). The bees are very angry. Smoke will disperse a swarm, more or less causing them to return to the fallen hive while pollen from the intoxicating flower can attract them. It's impossible to scare an outlaw being swarmed by bees (as you simply aren't as frightening as the very angry bees).

Player Agency

Character Controls

- Movement is done by successively creating waypoint-like locations on the map's grid by left clicking. Which is available as long as the player has actions remaining.
- Players are given a certain number of actions each round. Each action can be used to move 1, possibly 2 (or more, needs testing) squares on the grid taxicab-distance, to put the player character in ambush mode or to control the wind (possibly takes more than 1 action).
- When appropriate interface elements are above the map, they should be interacted with via left click instead of causing the player to move (or otherwise).

- These interface elements include undoing the last planned action in the action “queue,” confirming player actions to perform them and move to the next turn, and perhaps toggling the display of certain information (enemy turn order).
- A keypress such as escape could/should open up a pause-like main menu with various options detailed elsewhere.

Camera Controls

- Camera can be rotated by right clicking (RMB) and dragging left or right (horizontally) from the location of the initial click.
- Camera can zoom in and out from the character with the mouse wheel.
- At closer zoom levels, camera always focuses on the player character’s position.
- At closer zoom levels, camera has a decreased angle between the viewport and the ground (approaching parallel)
- At farther zoom, the camera approaches a top-down perspective and can be panned
- When zoomed out, camera automatically pans within certain bounds based on mouse position.

Menu Navigation

Detailed menu navigation is primarily driven by left clicking various UI elements, including small “x” icon boxes that indicate “close” to dismiss menu elements. More complicated UI panes might involve (button) tabs with Unreal Engine widget switchers and certain game settings such as in-game volume for audio effects will likely involve a sliding bar. The escape key should dismiss the current menu pane and return to the previous one in the hierarchy, eventually returning to the first menu item created (at which point escape will fully escape the menus and return to the game).

The main menu, as is more fully realized in a circularly-panning 3D scene with Cacti and other thematically appropriate elements, will be panned by clicking within the left or right region (arbitrarily defined) as the center region is reserved for a menu object (3D asset) brought into clear focus of the viewport. Clicking on the menu objects in the scene should also adjust the focus to center on that object (camera rotation around a fixed axis in the middle of the objects) and in the case of being equally distant clockwise or counterclockwise to reach the destination, will go clockwise. This menu should not be moveable/interractible while it is spinning/rotating to prevent the possibility of user error.

Main menu 3D objects can include small animations that create or expose sub-objects related to the menu item at hand (level selection) rather than just opening up a boring semi-transparent widget panel. This is an element of polish and quality that is unnecessary but important in defining a strong user experience.

Mechanics

Core Mechanics

Bone Charge System and Score

Recovering Bones

Players have a limited number of bones that they can use to control the wind. Players will spend a bone to activate the wind, and can find or otherwise recover additional bones throughout the level. This is accomplished by scaring certain enemies or reaching certain areas.

Player Scoring

Score is tracked and calculated at the completion of a level. Players are rewarded for using fewer moves, finishing with a greater number of bones, and perhaps triggering certain environmental effects. The combination of the above factors and how they interact could take the form of baseline score, a multiplier, and additive values. The usage of bones to complete a level more quickly, while also reducing score can be balanced to provide an interesting decision for players seeking to maximize their score as a challenge.

Wind Control and Wind Interaction

Control and Player Movement

As mentioned earlier in the *Recovering Bones* mechanic, players can spend bones to create wind in a direction of their choosing. While this wind will interact with the environment and other entities, it also causes the player character to roll as a skeletal tumbleweed in that direction if possible beforehand.

Wind Environment Interaction

In addition to blowing hats off heads, and knocking unbalanced outlaws off their feet, the wind interacts with and moves elements of the level environment. It can blow a variety of airborne entities, such as intoxicating pollen, swarms of bees, and smoke. It can knock over buckets (sometimes onto heads!) or cause a campfire to light a nearby structure on fire.

Hostile Entities Alerted by Sight and Sound

Frightening Bandits

Last Bandit Standing

Important Implementations

Level Save/Load

Hostile Entity Alert System

Wind Interaction System

Last Bandit Standing

Aesthetics

Narrative

Color Palette

Art-Style

Sound

Player Sensations

Challenge

Fantasy

Positive Feedback

Negative Feedback

Changelog

10/14/18 - Document Creation

- Document Formatting
- Influences, Design Pillars, and Gameplay Hooks “completed”
- Core Mechanics in progress

10/15/18 - More Additions

- Added to Core Game Loop and Novelty sections

10/16/18 - Game Flow & Level Design

- Filled in challenges and pacing
- Filled in Level Design (Map characteristics, gameplay, hostile and passive elements)
- Additionally filled in Player Agency (menu navigation, player and camera controls)