Original GDD

Spawn room
- Spawn room is a departure from the normal. Here is a bit of sky and the last glimpse of the "normal" world before the player embarks on their adventure.
- Rope Cutscene?
- Pick up tutorial? (pick up torch) (move boxes to gain access to the main area)
  - Grab tutorial VR https://www.youtube.com/watch?v=0f8DkKfl_9Y
  - This will be a tutorial on how to move objects. This is crucial for later when there will be boxes covering the entrance to the tunnel
  - The player will be prompted to grab the sword and chop down some vine covering the passage
    - Chopping tutorial https://www.youtube.com/watch?v=Be7l9Dy1Cqk
    - Chopping will be a tutorial on drawing and swinging the sword.
    - Prompt to move the holster in a settings menu will appear

Hall 1
- This serves as the introduction to the caves. Here there is nothing abnormal about the environment.

Room 1
- ~~Hall 1 serves as an introduction to the abnormal. The lighting should highlight the stone door, indicating that this is not natural and is built by something or someone.~~
- Vines

Stair
- ~~This is going to be a basic staircase. Players will move down it swiftly and move on to the next part of the level~~

Crypt
- This is where the player is introduced to the evil. Here the player will enter and the lights will go out. Then the skeleton's eyes will light up, some dialogue will happen and the lights will go back on.

Water
- Water area with Cliffs on either side lit by mushrooms and the like. The water flows down below. There are two bridges where the player can cross. The first leads to the hall and the second leads to the two rooms. There is a ledge that the player can take to arrive at the second bridge
- To Do
  - Fix water
  - Add lighting

Hall

- A basic hallway for plays to naviage through. Decorated with castle walls much like the crypt, this will be there for the players to get a sneak peak at the lava room. As the player travels closer to the lava room, rocks collapse, leaving the path blocked.
    - Rockslide https://www.youtube.com/watch?v=UbS1Bm70pFA

2 Rooms
- There will be two rooms and some enemies to fight inside. This will serve as a slight adversary. Here the player will fight a skeleton and move a desk to reveal a trapdoor.
    - Weapons link to purchase https://www.unrealengine.com/marketplace/en-US/product/medieval-weapons-pack-vol-1?sessionInvalidated=true
    - Animations link to purchase https://www.youtube.com/watch?v=utole-OEYto
    - Ememy AI https://www.youtube.com/watch?v=DC7XkWXAKoE
    - Desk Push
    - Trapdoor

Tunnels
- These will be very cramped rock tunnels that the player must navigate through. There will be no light. Only the light from the torch will be available to the player.

Boss
- The boss room has treasure in it. There will be a small statue that the player can pick up. This area will be defended by four skeletons.

Other necessities
- Left-handed mode for me :3
- Pause menu
- Health system

If can

Above ground section
- Flythrough of a world before the start of
- AI companion
- Rappel

Main menu

Quest area with a main quest that player accpers

Postmortem

Process of Level

Room 1: House

- Outline
  - The player spawns in a small home. It feels cramped but cozy. There is a fire that is still going and the place is a mess. As the player spawns a woman can be heard narrating her journal. She speaks about her husband being lost and how she wants to go find them. She also talks about how he seeks an idol.
- Challenges and thought process
  - This room was really fun to design. Fun fact, I created the majority of the room from the hours of 2:00-6:00am when I couldn't sleep and got inspired. I did quite a bit of research into how to make a room cramped and claustrophobic for this along with the research I did on interior design. I ended up making the ceilings low and added definition with the bars to make the room feel really small and cramped because I wanted the player to feel unsettled. I wanted the ceiling to be in view of the player at most times to again add to that unsettled nature.
- What would I do differently
  - I feel like it isn't obvious enough visually that the place was left in a hurry. I tried to leave food out and the place a mess but I don't know if my visual storytelling here really drove that idea forward. It's something that I need to work on for my future environments.

Room 2: Cellar

- Outline
  - The player walks through the cellar and into the next room.
- Challenges and thought process
  - In this room, I didn't really run into any difficulty. I did however create the wine racks from different models. I took a small shelf model and stretched it to fit the barrel to have these nice-looking shelves that the barrels could sit on to make it seem like there was more going on. I changed the lamp and walls because I felt like they fit the theme of a cellar better.
- What would I do differently
  - I think this is definitely a transition phase of the level. As I'll get into later I just dislike the idea of having areas with no real purpose. I wish I found a way to give more of a purpose to the room beyond this.

Room 3: Upper Cave

- Outline
  - The player travels through a small section of a cave. There are torches lining the walls. In the middle of the hall, there is a rock with a vine on it. The player climbs up the vine and over it to proceed to the end of the hall where there is an opening.

- Challenges and thought process
  - I found out through playtesting players don't like to climb down. It's like they are allergic to it for some reason, which is why I added this little section to act as a tutorial for climbing before they need to descend into the cave. I think it was really successful. I originally had rocks jutting out for the player to grab but it wasn't visually clear. Funny enough, I was playing Raft with some friends and someone complained that they couldn't climb the vines and a lightbulb went off in my head so I changed the rocks to vines and now the visual language is very clear. Vine = climb.
- What would I do differently
  - I wish I had gone with the organic lighting for this. Or just made no torches in the area. I talk about this later but the cave was supposed to be unexplored and mysterious, where the player had to brave the darkness and find their way to the first man-made torches two rooms from now, and having these very man-made torches hanging here really undercuts that.

Room 4: Decent into lower cave
- Outline
  - Birds chirp as the player sees their last light of day and descends into the depths of the cave via a vine.
- Challenges and thought process
  - I had a hard time showing the player that the vines were there. I originally had them on the player's side of the ledge until I realized that the player didn't notice them and just jumped down so I moved them to the other side and added a small platform the player can walk across.
- What would I do differently
  - I don't like the ledge. It's too clunky. If I were to redo this I would make the vines travel across the edge and have the player climb sideways then down. Just a small nitpick but the ledge just seems out of place. Also players just jumped or fell down a lot.

Room 5: Lower Cave
- Outline
  - The player travels through a naturally lit cave and encounters some torches.
- Challenges and thought process
  - I did so much work on this area because it's the coolest part. The player finally enters the cave and I really wanted them to be wowed by the natural beauty of it and that part was nailed. I utilized the rule of thirds here constantly. Every door the player is met with a rule of thirds composition and their eyes are drawn towards a specific part of the level. I just really liked this part.
- What would I do differently

- I want it to be bigger. I feel like the adventure was rushed. The cave part should be really cool exploring this big huge cave and then all of a sudden there is this human structure inside. It didn't hit because I didn't let the exploration breathe when the player was directly inside the cave. I think it helped when I had the player also move through the top part but I still think it needed even more exploration of this environment before the player came across a torch and other human elements. It was supposed to be like oh? What is this doing here? I am not sure how I could have done that but that's what I was going for anyway.

Room 6: "Stairs"
- Outline
  - The player climbs down a wall as they descend into a crypt.
- Challenges and thought process
  - I originally had a spiral staircase to take the player into the crypt but I changed it to vines because the spiral staircase caused motion sickness and was just really clunky overall.
- What would I do differently
  - I feel the vines aren't exactly what I wanted. This was originally a spiral staircase and what I was going for was oh wow there are human elements in this natural-looking cave but the vines cut into that beat hard. I feel like I got lost in the sauce in the cave part. It looks not natural enough while also being not man-made enough.

Room 7: Crypt
- Outline
  - The player enters the room and behind them a door closes silently. The crypt has two skeletons hanging from the ceiling and a demon in the center of the wall across from the player. There is a grand dining table in the middle of the room with chairs arranged as if a group left in a hurry. As the player gets to the center of the room the lights are blown out and a spotlight shines on the demon. It's eyes light up along with the eyes of the skeletons. The demon says some dialogue about how the player is trapped and the people he is looking for are dead, then the door opens and the player can proceed.
- Challenges and thought process
  - The crypt was always the center of my level. It's the point of no return in the hero's journey. They already understand the stakes and are now entering the point of no return (literally there is no going back in the level now). The triggerable event was pretty easy to do. I just made the torches blueprints and when the player entered the trigger I toggled them off individually. The lights for the demon go on, dialogue plays, and concludes. The torches go back on and the door opens. The hardest part was to make sure the door opened in a natural way which I think I got.

- What would I do differently
  - I wanted to add some type of high windows to make the place feel like a prison. They didn't necessarily have to be windows but something looming above the player to accentuate the feeling of being trapped but I just couldn't figure out a way to implement this naturally. The door teleports before it opens but honestly, it wasn't a huge deal to me so I didn't mind.

Room 8: Water
- Outline
  - The player walks across a small bridge over water.
  - After the player comes back from the rockfall they come back to find a ledge that they can shimmy across that leads to another bridge. As they are shimmying they see the water rushing under them.
- Challenges and thought process
  - I ran into a massive challenge with my water material. I really liked the way it was shaped but it looked really unnatural. It took quite a bit of fiddling in the material editor for me to get it right. The second challenge of the area was making sure the player didn't go along the ledge immediately. I did a really good job of having my player notice the ledge and the door. The torches for the door to the storage room being able to be seen from the exit was a great touch that guides the player to that area but at first, there was too much lighting and the area was too noticeable. I had some flowers that lit up the ledge too much and players were more attracted to the ledge.
- What would I do differently
  - I wouldn't do much majorly differently. If I were to pick out one thing it would be to change up the ceiling a bit more.

Room 9: Hall to puzzle room
- Outline
  - The player goes into the hall, has a sneak peek into the puzzle room, and is met with a rockfall. The player is forced to turn around.
- Challenges and thought process
  - I wanted to give a bit of a teaser for what's to come. Originally this was a boss room and there was more to tease but the players now just see the puzzle room which is fine. The real problem I had with this room was making the rockslide look good. My original plan was to have the screen shake and have the rock come down with some smoke so the player didn't notice how jank it was. I ended up dropping the smoke due to performance or speed. I didn't quite have time to figure out Niagra so I couldn't make it work.
- What would I do differently
  - I like the room. I like the idea of a rockslide but I just really wish I could have figured out Niagra. I spent a day on it and decided it wasn't necessary.

Room 10: Storage Room
- Outline
  - The player walks through the room and drops into a hole.
- Challenges and thought process
  - I really couldn't figure out what to do with this room. For a while I wanted to make a trap door but I thought it would be too jank so I took it out.
- What would I do differently
  - I really don't like how this part turned out. I needed to keep it in because the structure of my level wouldn't be the same if I took it out but it doesn't tell a story. It's a remnant of bad planning, where I originally wanted a fight to happen but never defined the space so when I got to the end of my project I just had a room that I didn't know what to do with it so I just made it into a miscellaneous storage room which I was not super satisfied with. It feels out of place and never told a story. If I had more time I could have come up with a

Room 11: Tunnels
- Outline
  - The player creeps through a cramped area lit with torches.
- Challenges and thought process
  - I wanted the player to really feel cramped and scared here. I just didn't execute well (i'll get into that)
- What would I do differently
  - I really should have given the player a personal lantern for specifically this area. I wish that they could creep through this dark hallway that is super claustrophobic. It would be super cool. Maybe it could also be a maze? Anyway, I also wish that it was longer.

Room 12: Puzzle Room
- Outline
  - The player must figure out a pressure plate puzzle to open up a door.
- Challenges and thought process
  - I originally wanted to do a puzzle where there were three angled items and the player had to turn a crank but it felt overly complicated so I dropped that in exchange for pressure plates. I did light set dressing for the room to make it look like an armory.
- What would I do differently
  - The pressure plates don't really work sometimes and I never found out why. I also never defined what the room was going to be

Room 13: Loot Room
- Outline
  - The player enters to see a room full of gold and a pedestal with an idol on it. The player picks up the idol and leaves.

- Challenges and thought process
  - I didn't have much of a challenge here.
- What would I do differently
  - I wish I had playtested more when I added the pedestal because multiple people right as I was wrapping up wanted a sandbag like Indiana Jones to swap the idol with, which would have been fun.

Room 14: End
- Outline
  - The player walks through a small door and leaves the level.
- Challenges
  - I didn't really run into any challenges here. I wanted the player to think they were leaving the cave.
- What I would do differently
  - I would fade to white then exit.

Overall
- Overall challenges:
  - I had massive performance issues with my game. In the worst part of it, the game was lagging in the editor, much less in the VR. I was really worried for a while but I found out I could have the level load and unload dynamically which is what I went for. I think that really worked out. I was really satisfied with the performance. I didn't get any lag and didn't have to cut anything to get there. I also lowered the LODs of most of the project to get it to a playable state.
- Overall changes and takeaways:
  - I already knew that GDDs are important but I think now going back it is so important to have everything defined for the story. I have multiple rooms where I went to set dress them and thought what is the purpose of this room? I think that's bad. I want to be a well-versed visual storyteller which means everything should have a purpose to the story. It's how we make deep and intriguing worlds. I think every time my project takes a major change I should go back and redo the GDD so I have a clear picture of what is going to happen.
  - I wish I added music to this. I just couldn't find any music that I liked but I am a big proponent of how music and just couldn't figure out a good way to do it. I also wish I added a lantern for the player to use. I think especially for the beginning it would have made for a more adventurous experience.

Why did the project change so much?

I think the project changed so much because I shifted priorities. I wanted to create a great experience, not an ok one. My time is not infinite. If I added the skeletons the rest of the level would have suffered. After doing massive amounts of research into it, I felt like the wow factor

of the skeletons would be less than what I could achieve with the wow factor from the level being significantly better (I budgeted multiple weeks to just completing the skeleton fights). With these factors, my level had to pivot. I need to redesign my level from the ground up. As for each room that changed.

The spawn room was moved inside the house because it made sense with the story. I had this idea to originally have an NPC there and have it be more of a tavern, where you exit and you go to the cave via a short walk but I ran into two problems with that. Scope and disjunction. The scope of my grey box was massive. I wanted it to feel more like Skyrim with a pseudo-open world, so the environment design would have been really tough to do and would require more research. My next project will encapsulate environment design and the design of nature. I still felt like the spawn room needed to have a story so I came up with the idea that the cave was connected to the house and the play would either spawn outside with a small cutscene that moved inside or just spawn directly inside (which is what I went with). I always knew I wanted to do some sort of descent into darkness so the vines were a natural inclusion. I also dropped a lot of the more gimmick-type VR experiences because I felt they were just unnecessary so that's why there aren't really any pickups or chopping anywhere in the level.

The stairs were originally a spiral but I felt that this was extremely clunky so I dropped it. I talk more in the part above about my dissatisfaction with how this part turned out but I replaced the spiral staircase with vines. Cool in concept but it just didn't work.

The crypt, water, and hall all didn't change much besides the addition of set dressing.

The two rooms changed a lot. This is now replaced with what I labeled as the storage room above. The skeletons are taken out and replaced with a generic hallway and area. It just turned into a filler part of the level that I talked about above and why I was dissatisfied with it.

The tunnels were kept in but I added light to them

The boss fight changed into a puzzle room because of mainly time and polish. I felt like the boss fight would end up being janky and not very fun so I just cut it and replaced it with a puzzle, which was always the backup plan might I add.

The different necessities ended up not being an issue for me. Everything ended up being ambidextrous, the pause menu was already implemented thanks to GDXR and the health system was not necessary because the player doesn't take damage.

The if I can things were just optimistic fever dreams. The only one that was in my scope was the above-ground section. This was grey-boxed and I even started on it before I decided to turn

around due to lack of time and other listed things above. The flythrough was going to be a cutscene at the start of the level. If I did the aboveground section I probably could have done this. The AI companion on the other hand was completely out of scope. They would have followed the player through the open world part of the level and then left when the player went into the cave. The rappel was replaced with the vines. The main menu was also a bit out of scope. I just wanted to focus on making a great level and not worry about making menus. Lastly, the quest area was a cool idea. Basically, it would have turned my level into a Skyrim-like quest where the player would get a quest from the bar area and return to the bar at the end to turn it in. Would have really liked to see that but it just was out of scope. I like the implication that my level is part of a greater game that is yet to be made but alas.

Credits

Level Design: Tyler Walker
Woman: Ellie Taylor
Demon: Alexander Escudero
Asset Packs (Not all used but all that are used are included in list. Some not included because were not used)

- Ancient Treasures - Dekogon Studios
- Arch Vis Polish Pack #2 - Warren Marshall
- Deep Elder Caves - Alexander Sychov
- Edith Finch: Sam Room - Epic Games
- Fantasy Bundle Environment Kit 3 in 1 - Denys Rutkovskyi
- Fantasy Interior Environment - Leartes Studios
- GDXR UVRT - GDXR
- Infinity Blade: Effects - Epic Games
- Infinity Blade Fire Lands - Epic Games
- Ithris Cemetery - Rasmus Bagner
- Modular Medieval Town with Interior - Wily Pumpkin
- Megascans: Medieval Tools - Quixel Megascans
- By Project Nature
  - Temperate Vegetation: Fern Collection
  - Temperate Vegetation: Foliage Collection
  - Temperate Vegetation: optimized Grass Library
  - Temperate Vegetation: Ground Foliage
  - Temperate Vegetation: Spruce Forest
  - Temperate Vegetation: Meadow Flowers
  - Temperate Vegetation: Wild Berries
- Realistic Starter VFX Pack Vol2
- Soul: Cave - Epic Games

- Water Materials - tharlevfx
- Free Fantasy Weapon Sample Pack - Prop Garden LLC

All audio was from Pixabay or included asset packs