

The Library

Games Development by Jack Cahill

Content

Research

Player pathing and level design

Time period and influence

Gothic Architecture

Media Inspirations

Development

Layout

Initial Sketching and development

Object Studies

General Environment
Development

Renders

Conclusion



Research

Final Fantasy 7



God of War



Uncharted 4



Alan Wake



Yellow flowers guide path

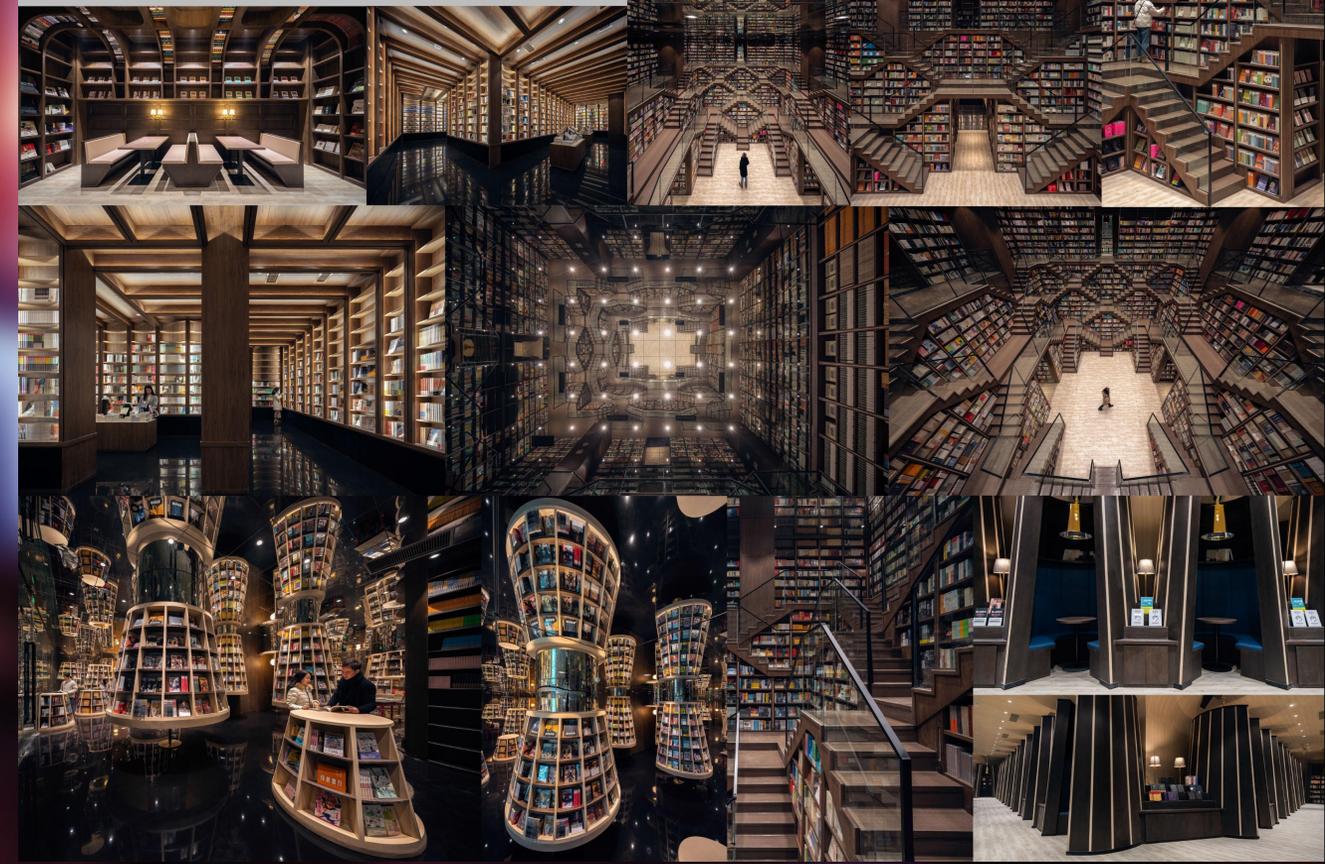


- I found a collection of images of libraries, displayed from various pieces of media. This ranges from the more animated 'Arcane', to the more gritty fantasy of 'Game of Thrones'. This is quite helpful in generating ideas of how my library may be displayed, but also becomes helpful as reference when I later design the overall and specific forms of the building and objects within. I do feel as though a commonality is a large open area, surrounded by narrower sections, mainly bookcase related.

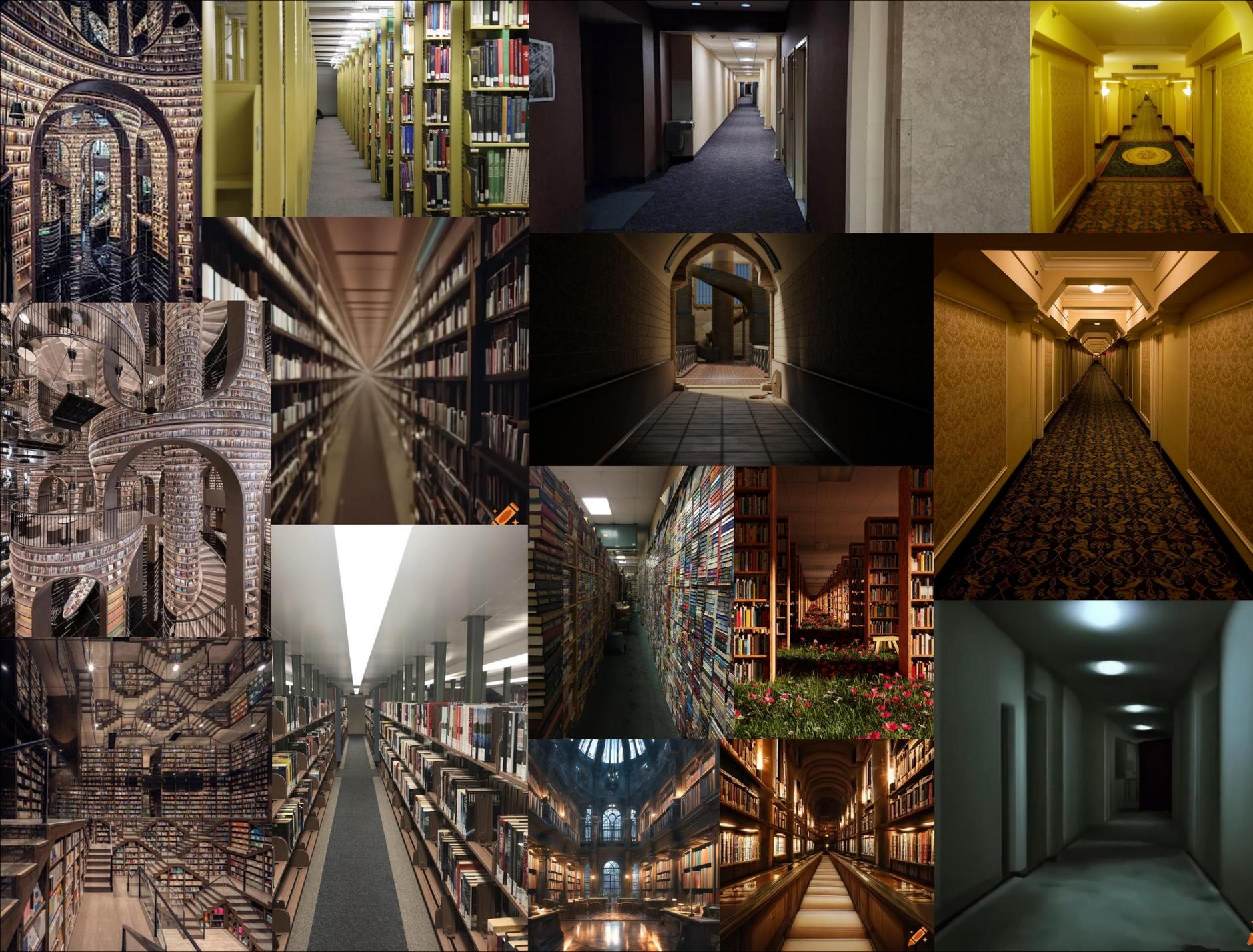
- A collection of images of libraries was produced, displayed from various pieces of media. This ranges from the more animated 'Arcane', to the more gritty fantasy of 'Game of Thrones'. I believe this is quite helpful now in generating ideas of how my library may be displayed, but also be helpful reference when I later want to design the overall and specific forms of the building and objects within. I do feel as though a commonality is a large open area, surrounded by narrower sections, mainly bookcase related.



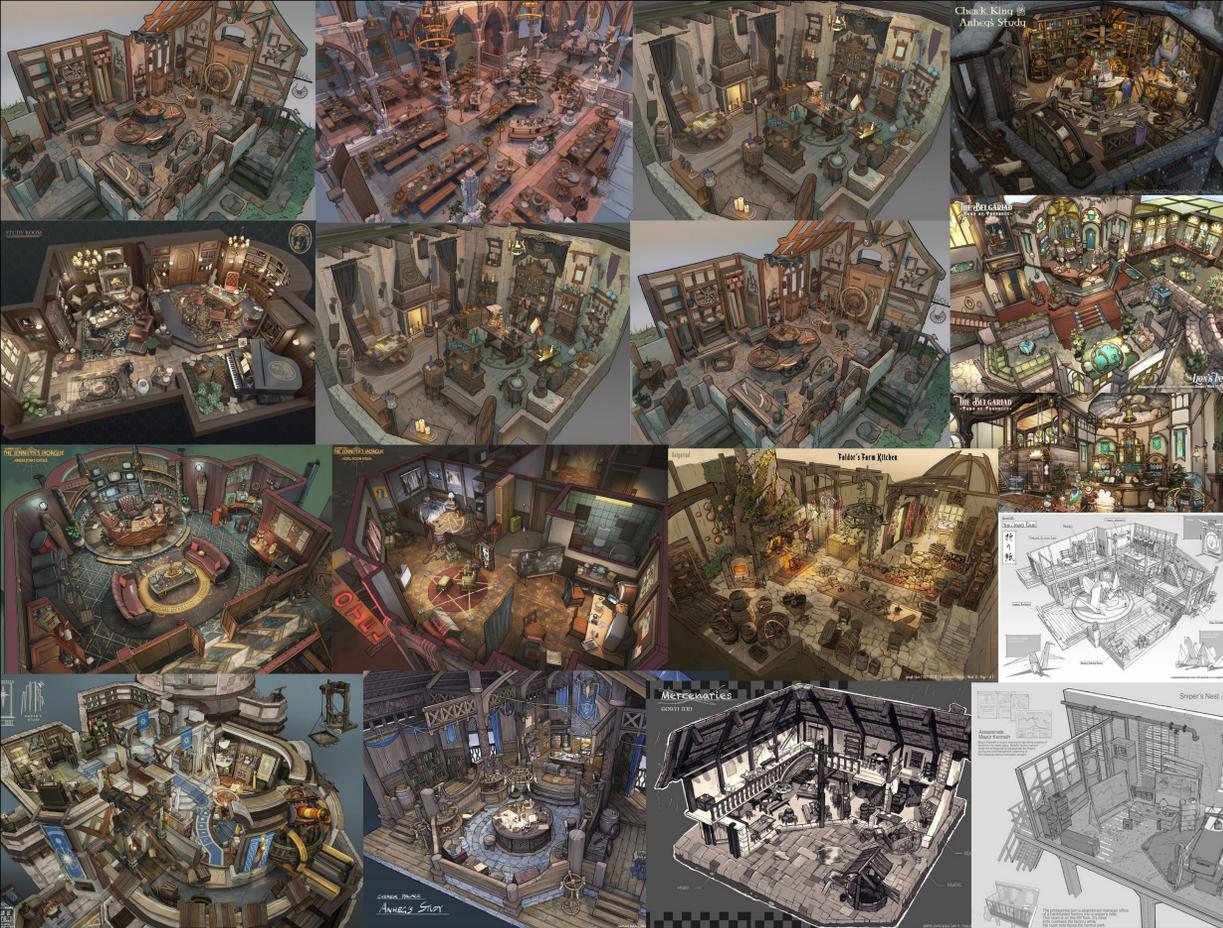
Chongqing Zhongshuge Bookstore



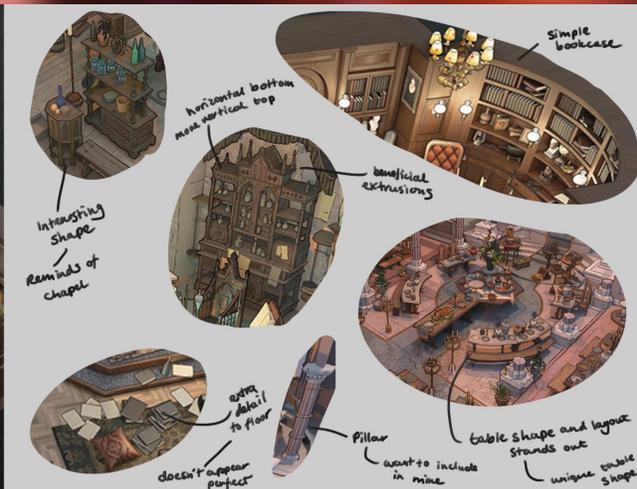
- I found the specific book filled building that the previous statement based its explanation from. The 'Chongqing Zhongshuge Bookstore' appears more unnatural and trippy due to its more rounded alive forms, accompanied by mirrors, presenting false space in itself. Perhaps having a grand mirror held within my environment, either hanging on the wall or propped against the wall, would be interesting. I may end up taking inspiration from this, producing staircases or other features, turning the empty space in to bookshelves.



- After finding fictional libraries, I thought it only reasonable to find reference from images of real libraries, which is also accompanied by long stretches of hallway, which I believe to be liminal space. The references are great in presenting one of the sections of the library I envision, having a long stretch which appears to bend reality, where I will guide the player down. The more unnatural space can also be seen by the images to the far left, having large archways, filled with books, which is interesting enough in itself. It forces me to expand my ideas, rather than conforming to general concepts of more flat and less curved libraries.



- Three of the previous collection of images were selected due to being the most useful to my project, along with being the ones which I find appealing. This can be best seen with the further focus on sections of the environments, seen in the top right of the below image, including bookcases, shelves, pillars, books, tables, etc... Some elements would work quite well in the environment currently in development, perhaps using the scattered books or more interesting table shapes for other designs.



- Above are a collection of fengzhu student work providing an insight in to how to present my environment in a clear concise manner. I also notice that the general texture and lighting is basic, which is reasonable due to the fact that they are suppose to be informative environment pieces: I will need to find the balance of simplification and detail.



- Victorian-medievalism would be a good topic to research, having a good relation towards the final product I will produce. It displays the type of fantasy element I would like to achieve, mainly found in the medieval aspect, whilst having the refined and developed architecture of the Victorian era. The main circled annotations display main points of further research, being gothic architecture and furniture, 15th century art for stained glass inspiration and the types of clothing one might wear.

Victorian-Medievalism

Medieval reenactment in Victorian England



<https://www.danceshistoricalmiscellany.com/medieval-reenactment-victorian-england/>



castles
architecture
flags

feathers
book and quills

chandelier

vibrant

lots of blue
medieval colours

royal purple
some are expensive dyes

apply religious symbolism and detail

ecclesiastic

honour protection glory faith

symbolism

religious references?

research gothic furniture

research gothic style

<https://heritagesquarephx.org/news/victorian-medievalism/>

Just as we look back to the Victorian Era, people of the 19th century were looking back to an even earlier period of history - namely, the Middle Ages (500-1500 CE). What is now termed "Victorian Medievalism" or the "Medieval Revival" was a cultural movement that encompassed art, architecture, politics, literature, and even facial hair! It admired and drew inspiration from the Middle Ages, which were perceived as being a purer time, both spiritually and aesthetically. Growing out of the earlier Romantic movement and the architectural Gothic Revival, it was largely prompted by a dissatisfaction with industrialization and the social upheaval that came with it. Many people felt the urge to flee the atmosphere of a polluted, factory laden city for an idealized vision of the past, one filled with feudal order, chivalry, and splendor.



Queen Victoria and Prince Albert in their medieval cosplay. By Sir Edwin Landseer, 1846.

Some felt this urge so strongly that they put it into physical action: In 1839, Archibald Montgomerie, Earl of Eglinton, infamously held a full-scale *Tournament* where 100,000 spectators gathered in the pouring rain and sleet to watch aristocrats in armors borrowed from the Tower of London utterly fail to strike one another with lances. The event did succeed in becoming a cultural sensation, and three years later, Queen Victoria herself would hold a fancy dress ball in medieval costume.



One of the most vibrant and well-known expressions of 19th century medievalism was the *Pre-Raphaelite Brotherhood*. This loose association of seven British artists formed in 1848 to reject the "mechanistic" teachings of the Royal Academy of Art in favor of an aesthetic reminiscent of 15th century Italian art. Working in painting, sculpture, print, and stained glass, their style valued vibrant colors, lush details, and a reverence of nature. While much of their subject matter was ecclesiastic in nature, the Brotherhood and their later adherents, such as Edmund Leighton, Marie Spartali Stillman, and John William Waterhouse, would also depict themes from literature, including Arthurian romance.



Swords in environment?

Lord Tennyson's *Idylls of the King* shaped popular perceptions of the middle ages and *chivalric virtues*. Naturally, these virtues would be *initially satirized* by Mark Twain in his *A Connecticut Yankee in King Arthur's Court*.



The Victorian era also saw the first translations and publications of rediscovered medieval works such as the 10th century *Beowulf* and 14th century *Sir Gawain and the Green Knight*. This year (2022), our holiday decor takes a cue from Gawain's Christmastide adventure. Our tree is adorned with moss and Gawain's green-and-gold enchanted belt, while the Green Knight's "fearsome axe" sits nearby. See it and our other medievalist themed decor all month long at the Rosson House!

<https://academic.oup.com/edited-volume/34281>

Victorian medievalism physically transformed the streets of Britain. It lay at the root of new laws and social policies. It changed religious practices. It deeply coloured national identities. And it inspired art, literature, and music that remains influential to this day. Sometimes driven by nostalgia, but also often progressive and future-facing, this wide-reaching movement, which reached its peak during the reign of Queen Victoria, looked back to a range of different peoples and historical periods spanning a thousand years, in order to inspire and vindicate cultural, political and social change. Medievalism was pervasive

medieval devotional verse, to triple-decker novels. It became a dominant architectural mode - transforming the English landscape, with 75% of new churches built on a Gothic rather than a classical model, as well as museums, railway stations, town halls, and pumping stations. It was appealed to by both Whigs and Tories. But it also permeated domestic life - influencing the popularity of beards, the naming of children, and the design of homes and furniture. This landmark study is an attempt to draw together for the first time

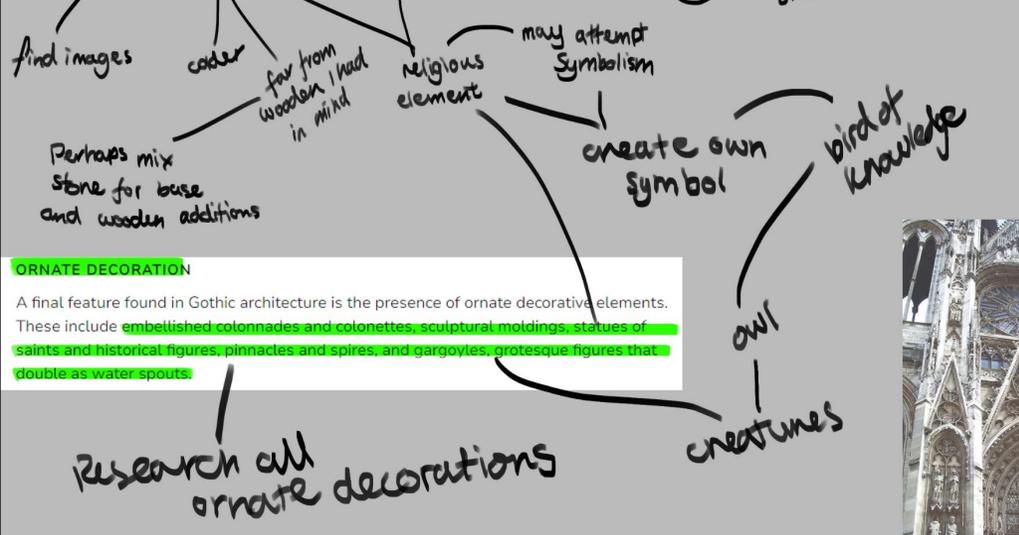
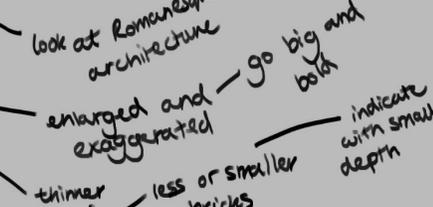
Table of Contents [hide]

- 1 What is Gothic Architecture?
- 2 History
- 3 Classic Elements
 - 3.1 Large Stained Glass Windows
 - 3.2 Pointed Arches
 - 3.3 Rib Vaults
 - 3.4 Flying Buttresses
 - 3.5 Ornate Decoration
- 4 Notable Buildings Built in the Gothic Style
 - 4.1 Basilica of Saint-Denis
 - 4.2 Notre-Dame de Paris
 - 4.3 Chartres Cathedral
 - 4.4 Reims Cathedral
 - 4.5 Amiens Cathedral
- 5 Gothic Architecture in Europe
 - 5.1 Milan Cathedral
 - 5.2 Westminster Abbey
 - 5.3 St. Stephen's Cathedral
 - 5.4 Seville Cathedral
- 6 Legacy



The Gothic style evolved from Romanesque architecture, a medieval aesthetic characterized by arches, vaulted ceilings, and small stained glass windows.

Gothic architecture adopted and adapted these Romanesque elements to produce a new style of building that featured exaggerated arches, increased vaulting, and enlarged windows. In addition to reinterpreting these characteristics, however, Gothic architecture also abandoned one key feature of Romanesque architecture: thick walls. To construct taller, more delicate buildings with thinner walls, Gothic architects employed flying buttresses for support. These stone structures allowed architects to create sky-high cathedrals and churches that evoked ethereality and reached toward the heavens.



ORNATE DECORATION

A final feature found in Gothic architecture is the presence of ornate decorative elements. These include embellished colonnades and colonettes, sculptural moldings, statues of saints and historical figures, pinnacles and spires, and gargoyles, grotesque figures that double as water spouts.



- Previously researching Victorian-medievalism, it concluded with the requirement to study gothic architecture. Some excerpts from the link in the top of the image can be seen posted here, summing up with thick stone walls, heavy religious ties and the various classic elements used throughout the style. Some basic non-focused imagery is also displayed, simply giving a quick idea as to the style that will need to be emulated: This already conflicts with the present ideas, which mainly consists of wood.

<https://jacobryanwheeler.medium.com/game-level-design-35-ways-to-guide-the-player-4bbc324204f4>

1. Pinching
2. Landmarks and Weenies
3. Framing
4. Color & Pattern Themes
5. Contrasting Colors
6. Contrasting Lighting
7. Leading Lines
8. Signs and Arrows
9. Environmental Clues
10. Dialogue Instructions
11. Dialogue Hints
12. Animations
13. Visual Effects
14. Dynamic Music
15. 3D Sound Effects
16. Text Boxes
17. On Screen - Objectives
18. Map Markers
19. GPS/Radar Systems
20. Follow NPCs
21. Pick-ups
22. Background chatter
23. Cut Scenes
24. Shape Psychology
25. Affordances
26. Anti-Affordances
27. Breadcrumbs
28. Alluring Map Areas
29. Gates
30. Valves
31. Pavlovian pairing
32. Operant Conditioning
33. Bait
34. Seeking Safety
35. Emotional Tugs

forcing through single direction
 Can repeat a pattern of vibrant colour as a guide
 less obvious than the 'yellow paint'

Colour theory and proper values guide through intentional points
 Perhaps add some indication of rfx at important interactive point

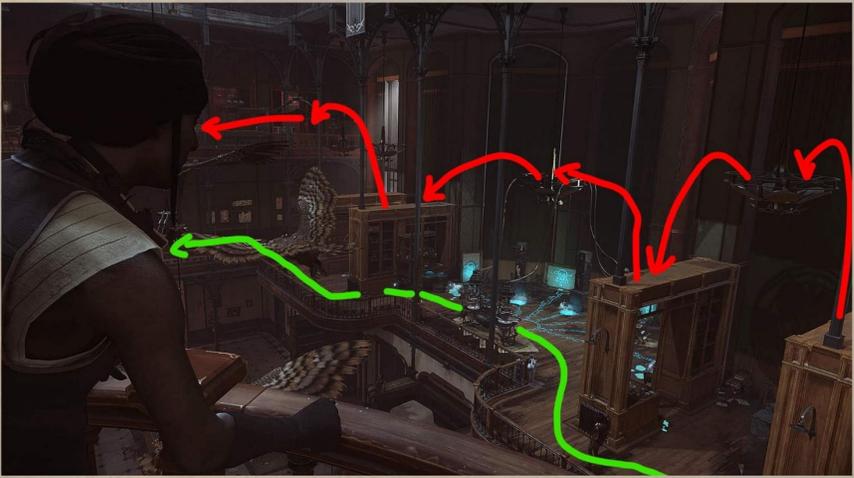
Common sense & psychology
 elements which stand out, intriguing player

breadcrumb path
 light source in the dark would do



https://www.worldofleveldesign.com/categories/level_design_tutorials/alan-wake-guide-the-player.php

<https://www.youtube.com/watch?v=q8uerexb4ck>



Alan Wake uses combination of the following:

- Landmarks
- Artificial Objects
- Framing and Composition
- Lighting
- Sound, Characters and Inner Dialogue
- Following NPCs
- Focus (F)

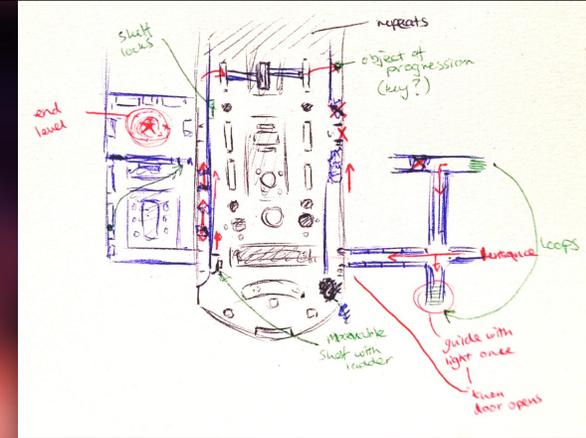
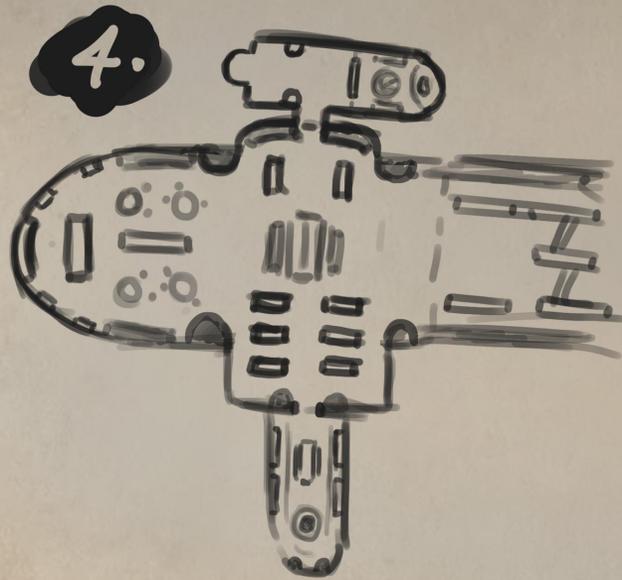
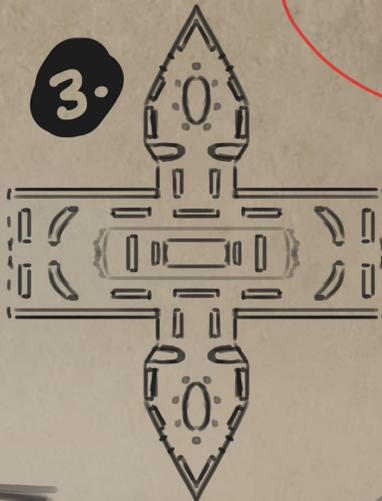
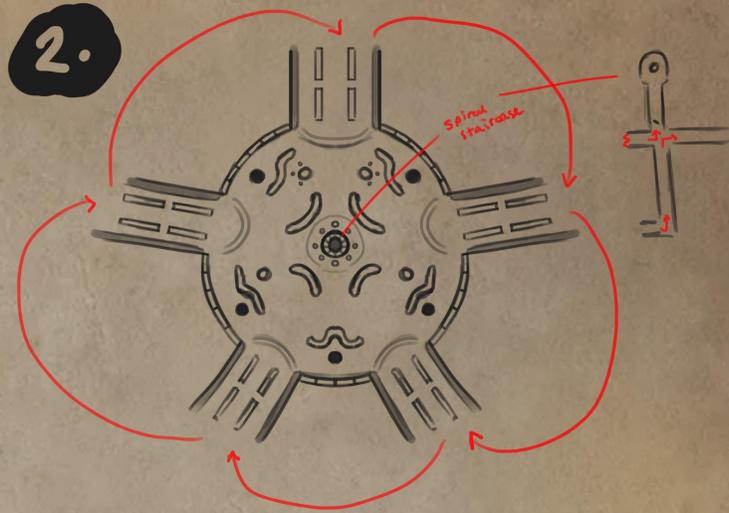
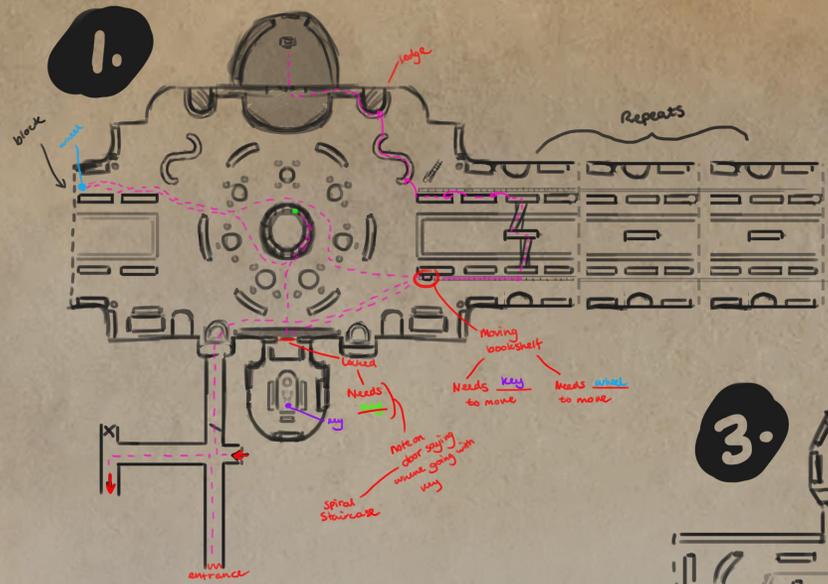
Handwritten notes:

- my centerpiece or the door → Dominant element
- can be applied → Contrast in lighting
- usual placement, blocking and over presence → not sure applies to mine
- seek the light as humans

- This project is focused on fixing the problem of player pathing throughout an environment, which led to the collection of some game images, breaking down the various ways they guide their players to the next point of progression. Breaking it down, I find the main reasons to be vibrant repetition of the same colour, symbols which stand out, pathing with the environment itself, shape language, values with contrast, and more. I would like to attempt to use the vibrancy repetition to guide within my environment, with brighter yellowish books amongst more desaturated books being the first idea that comes to mind.



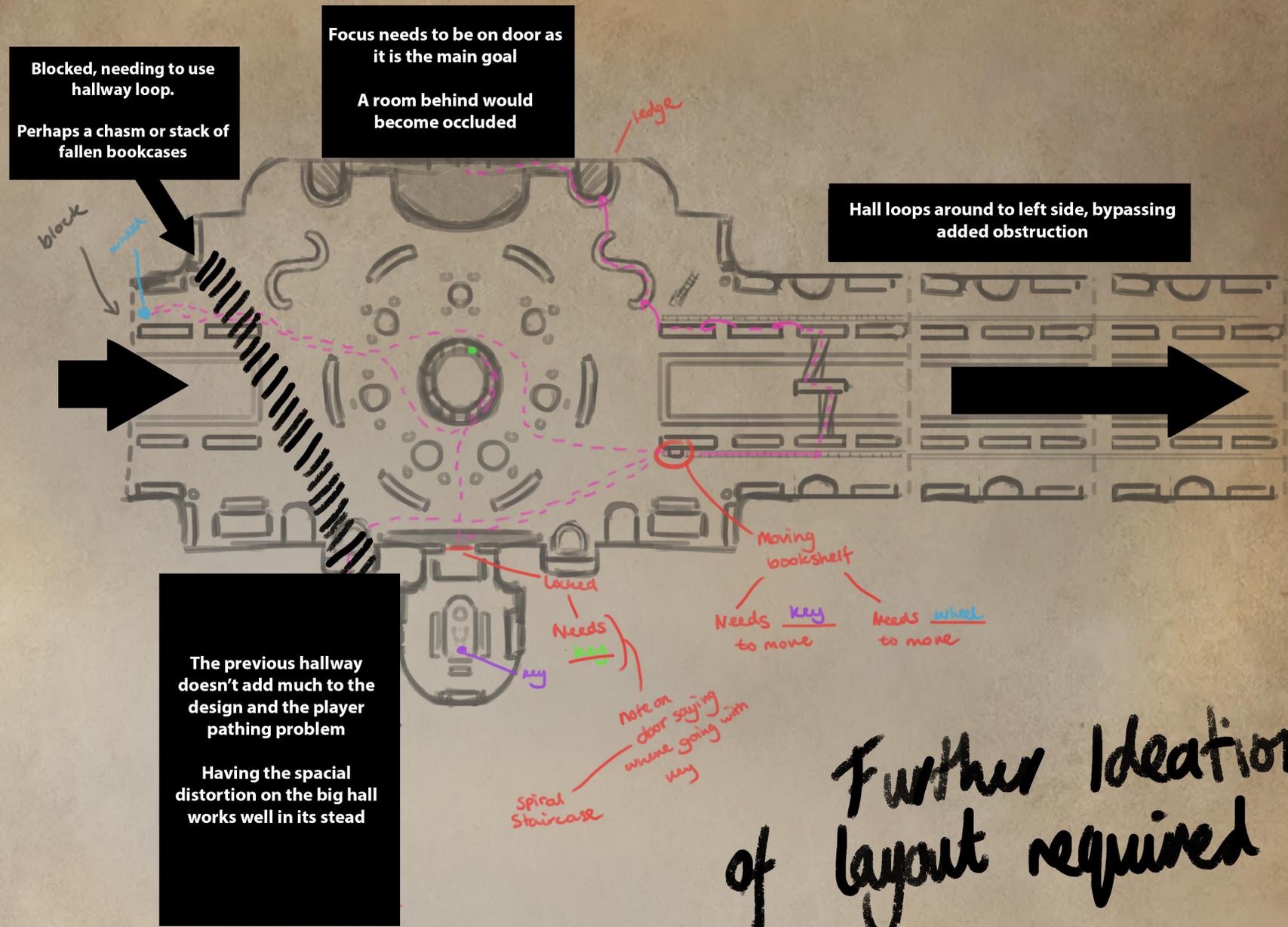
Development



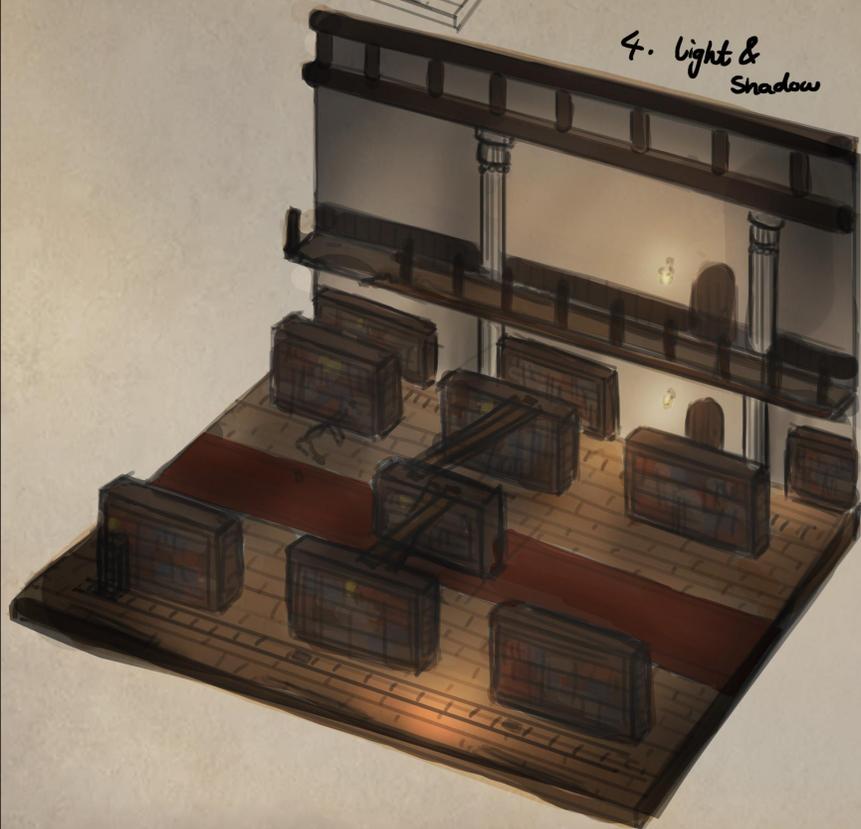
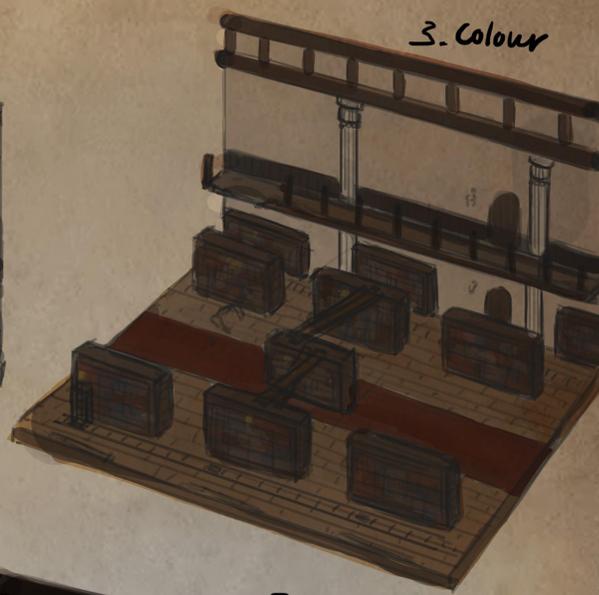
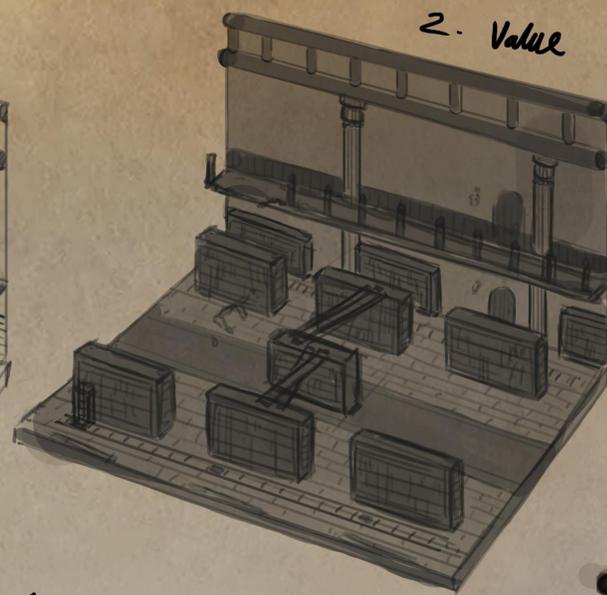
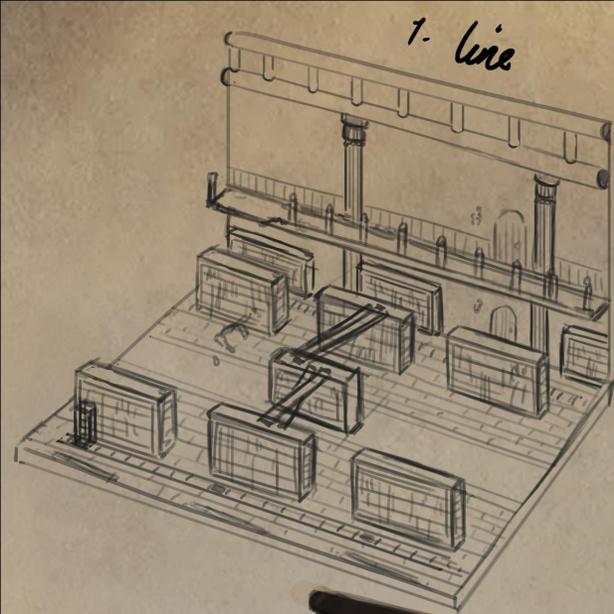
- Presented are multiple top-down layout sketches, another quick sketch, and the initial layout, which could later be used as a base to develop atop/with. One aspect I have realised is that most do appear a little too clean, with too much time spent on them, for what is suppose to be the blue sky ideation phase. Regardless, some interesting angles have been explored, with a circular layout, multiple elevations and other room shapes. As for sketch five, it doesn't present a clear or interesting set of rooms, however the connecting arched pathway may be an element I would go back to later in the project: If it wouldn't be so difficult to display in an informative painting, I would invert the curve, extending to arrange the floor to the ceiling and vice-versa.

- Design one was certainly the most thought out thinking about the player pathing, key objects and objectives required to progress and how the areas not with clear boundaries are defined with repeating space or a simple blockade. Despite this, there were still some elements which could be trimmed, not only not being needed, like the space distorting hallway instead being replaced by the big hall looping back on itself. Also, I felt the room at the very top would not display well as presenting the door is important, being the main objective of this room.

- After going over the strongest environment layout with a supervisor, multiple alterations were made, removing excess rooms, adding blockades to force the space distorting element to be used, which replaces the original hall endless loop. The centre of the layout appears to be the weakest portion, not appearing cohesively with the rest of the environment, and now makes me believe that quite a bit of detail would be lost with a great deal of greater vertical objects. This is the main reason for the annotated 'Further ideation of layout required'.

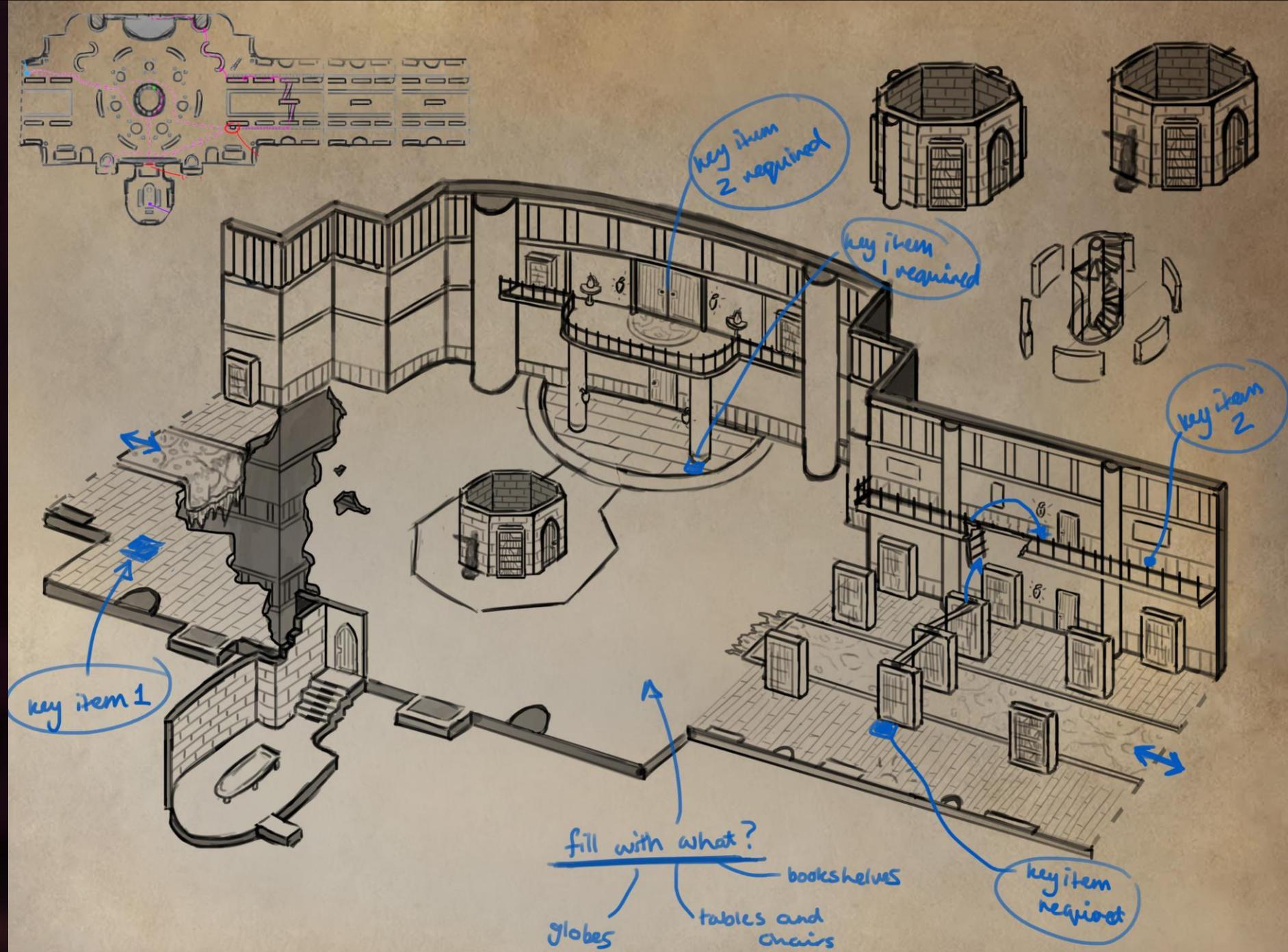


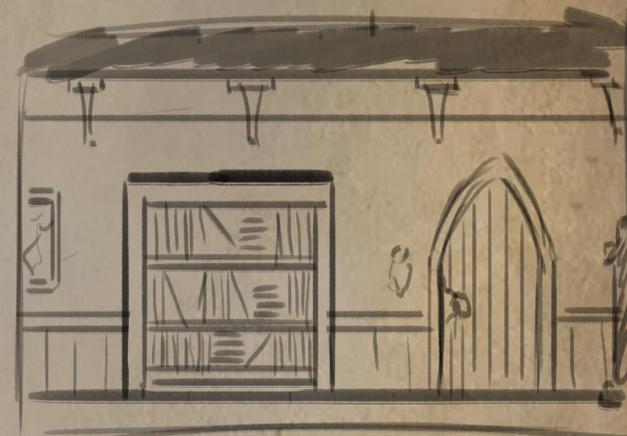
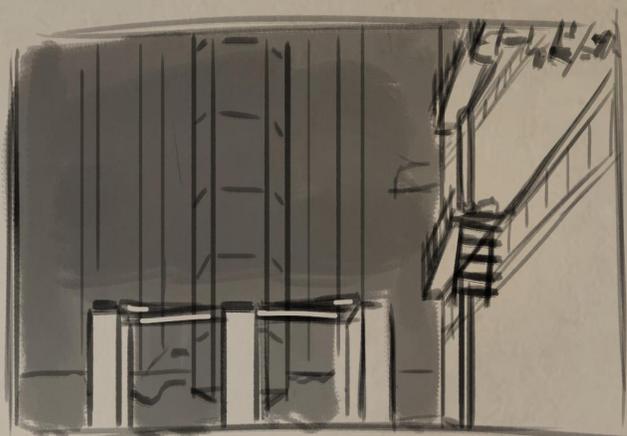
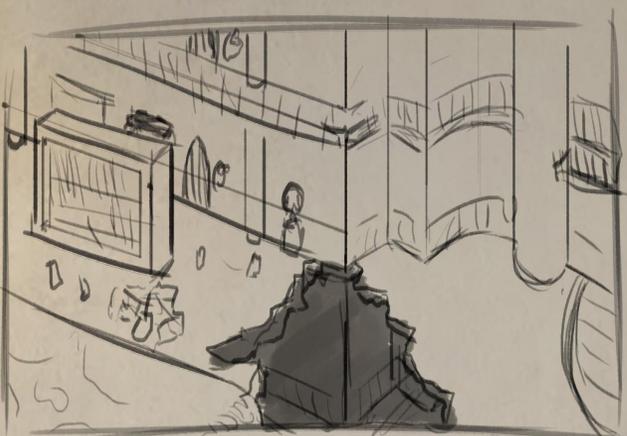
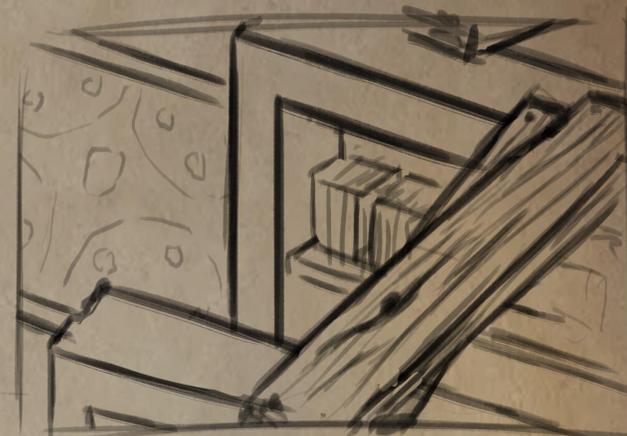
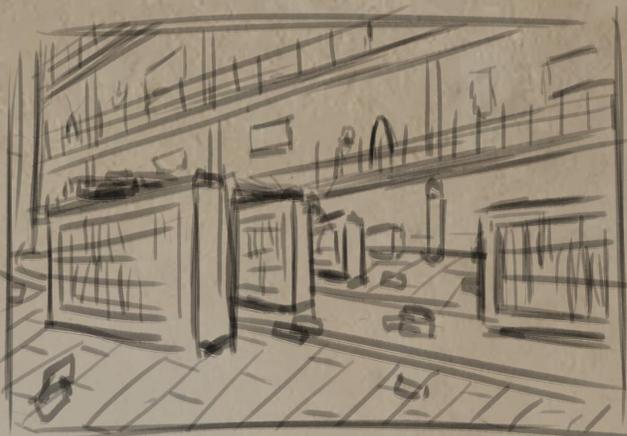
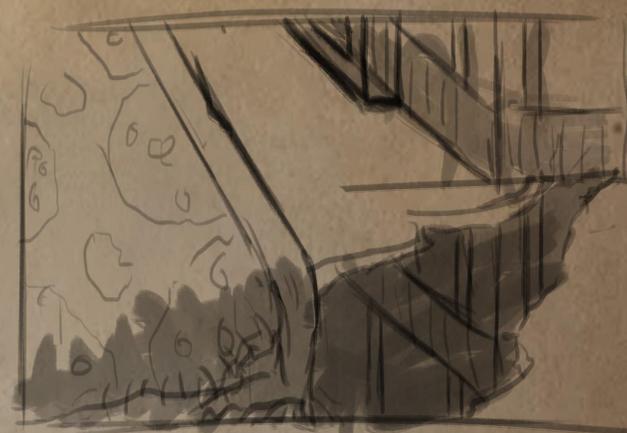
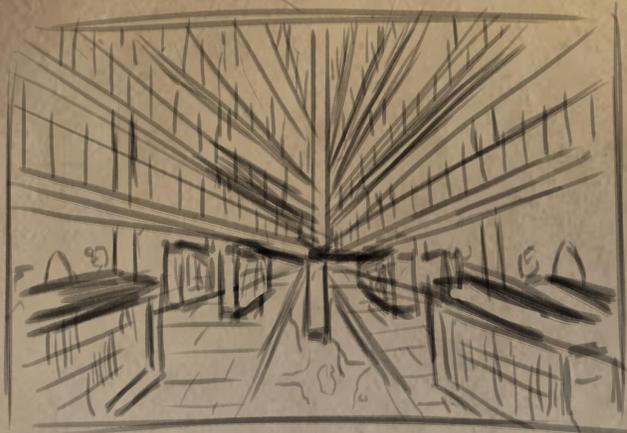
Further Ideation of layout required



- Despite producing this when it was thought to be a good rough display of the repeating hallway pattern, which is no longer the idea I am following through on, the above still works well at displaying my current thoughts on the basic design and layout. The bookcases should be one of the most important elements, with the addition of a rug and wooden flooring, which would contrast the more plain walls: The walls however do appear too bare, even if paintings or windows were applied. Regardless, this is still a good jumping off point, focusing on the concepts which work and those which do not.

- Using a previous trimmed layout sketch, which I probably should have created more ideations for, the above sketch was produced. Put in to the basic requirements, this would fit with the clear concise nature that was aimed for in this informative sketch, having the level objects and progression in mind, instead lacking in application of research, other ideas from ideation and studies of the objects which would inhabit the scene: These studies would assist greatly in filling the empty space in the middle of the room, along with any other empty space. Also, the separation between the larger room, which I believe would remain the same with added furniture, would be clear enough for the player to differentiate and maneuver in a non-stagnant manner.

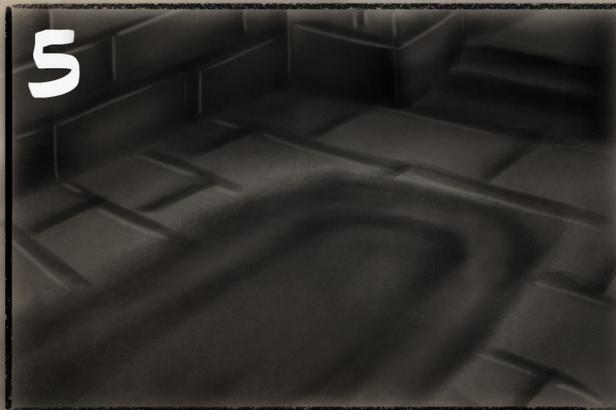


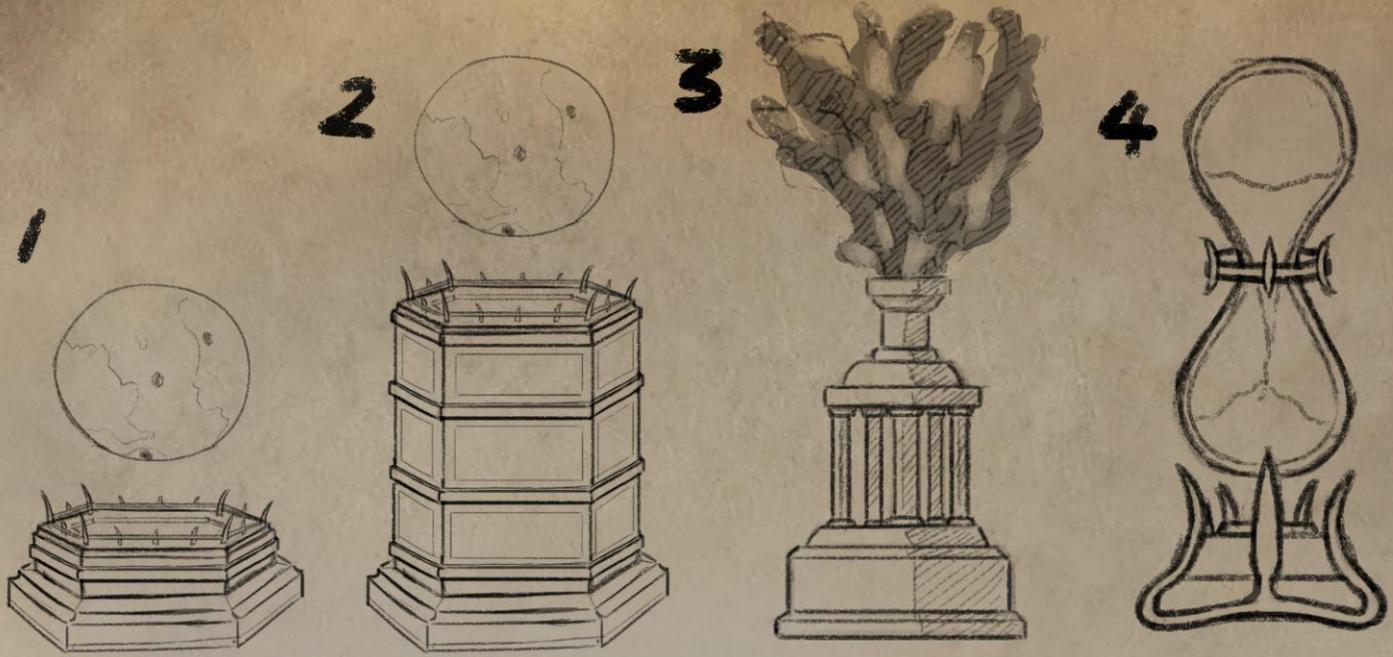


- Overlooking the thumbnails after their creation, they do not branch out beyond the presently imagined environment, instead reinforcing and giving a more concise idea as to certain sections of the possible final design. I believe these went moderately well, with my favourites being sketches 1, 4 and 5. These appear the most interesting from a player POV, appearing more immersive. Meanwhile, the others are either close-ups of possible details or more informative perspectives, like that of sketch 8.

Charcoal Sketches

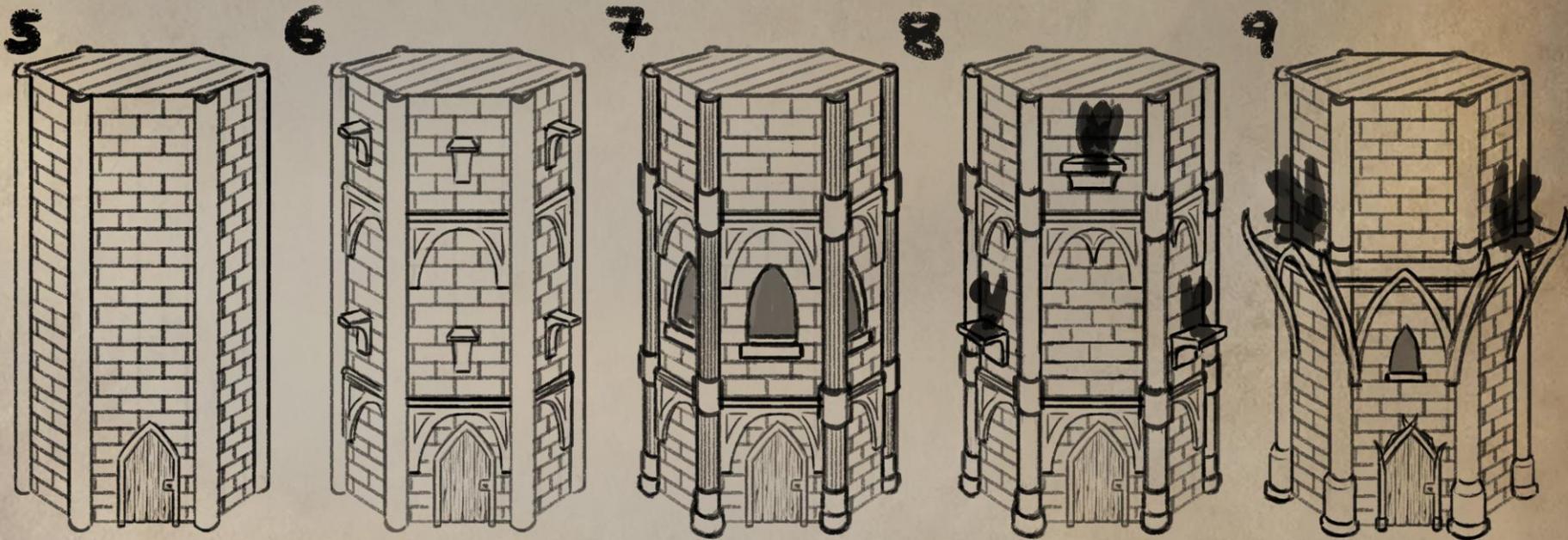
- Using a charcoal brush, three main sketches were produced, each having their own variation displayed to the right of it. Starting with one, it is an idea already produced, perhaps too often, but does display the environment in an interesting manner, centring the distant gap between walls, creating a path towards where the players focus should be drawn: The traversable bookshelves with wooden boards to shimmy across. This is better seen in its variation, inverting one of the layers, making the bookshelves and light more clear to observe. Next was the knight, which appears a little lacking in the walls and pillars, but still explores ideas. To elaborate, the pillars could be spiralled, even if only in one section, whilst the walls could have an easier transition with simple curved supports. The knight however is the strongest point of the sketch, being the focus and the most interesting aspect, adding another interesting detail to my proposed environment. Finally, five and six display the entrance to the level, with and without the main table, giving a clear idea as to what would lie beneath. I may later entertain the idea of a collapsed table, converging and scattering objects, whilst also allowing the occluded rug to be displayed.





1 through 4
could be
centre or
smaller detail

5 through 9
would mainly
fit the centre

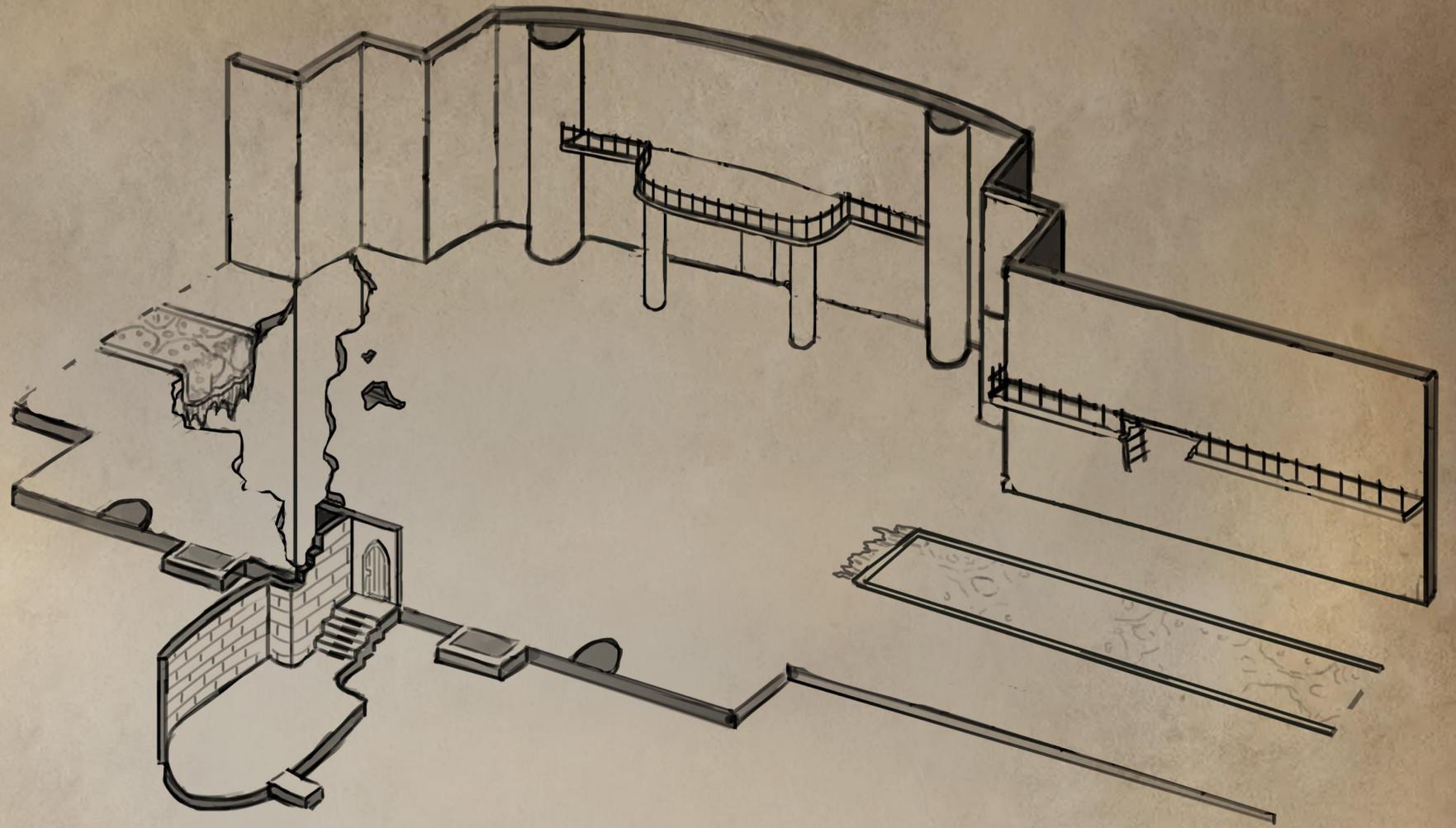


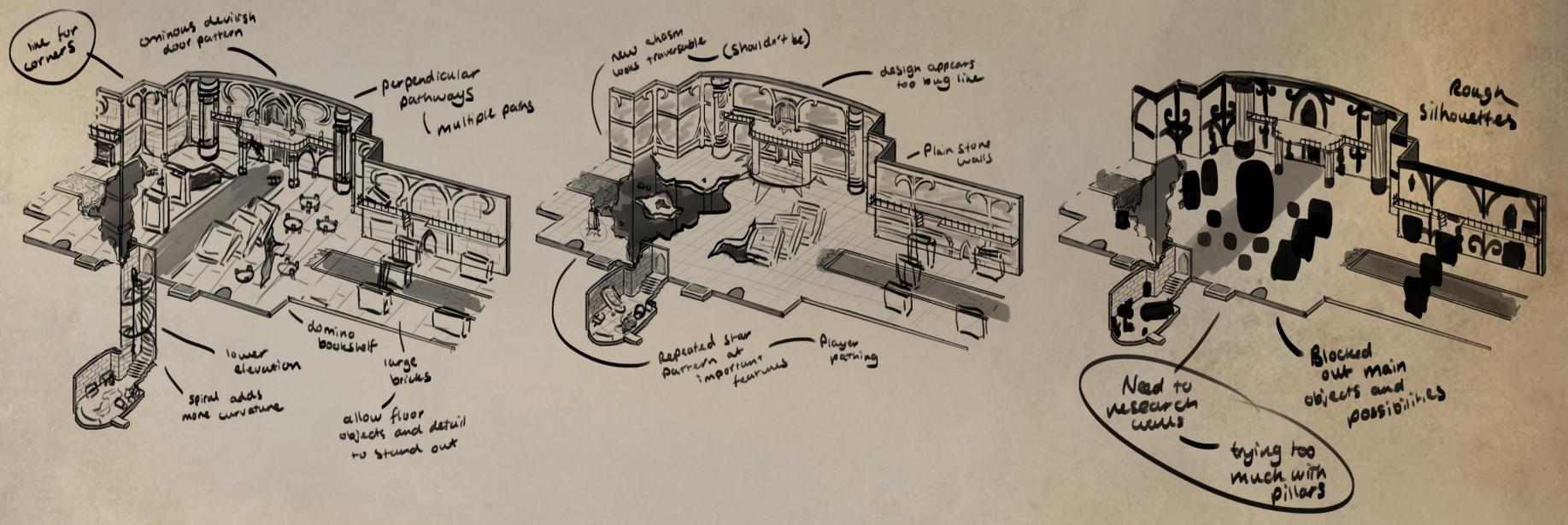
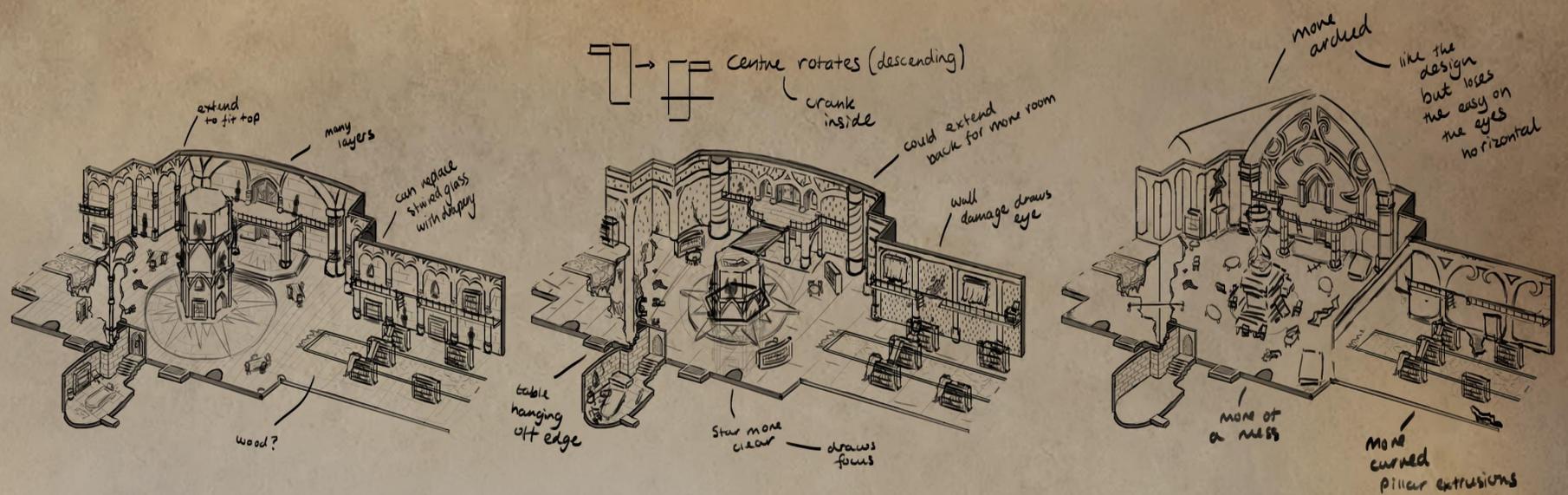
- The central location is of great importance to my environment, already thinking of having some form of pillar or elevating platform, having greater interaction with the player.

However, other options were delved into, thinking of showing off the more supernatural aspect with the floating objects, going in to the concept of time with the floating hourglass or going off my idea of gods requiring sacrifice through the usage of a braizer. Regardless, I went with the pillar, having something of more solidity and purpose.

- Taking the previous more refined sketch, I put it to good use, carving out lots of the detail to use it as a base for further development. I kept the room layout as it was as I found it clear, working well with the general concept I had in mind.

This opened me up to redesign the actual contents of the scene without having to alter the actual layout as much.

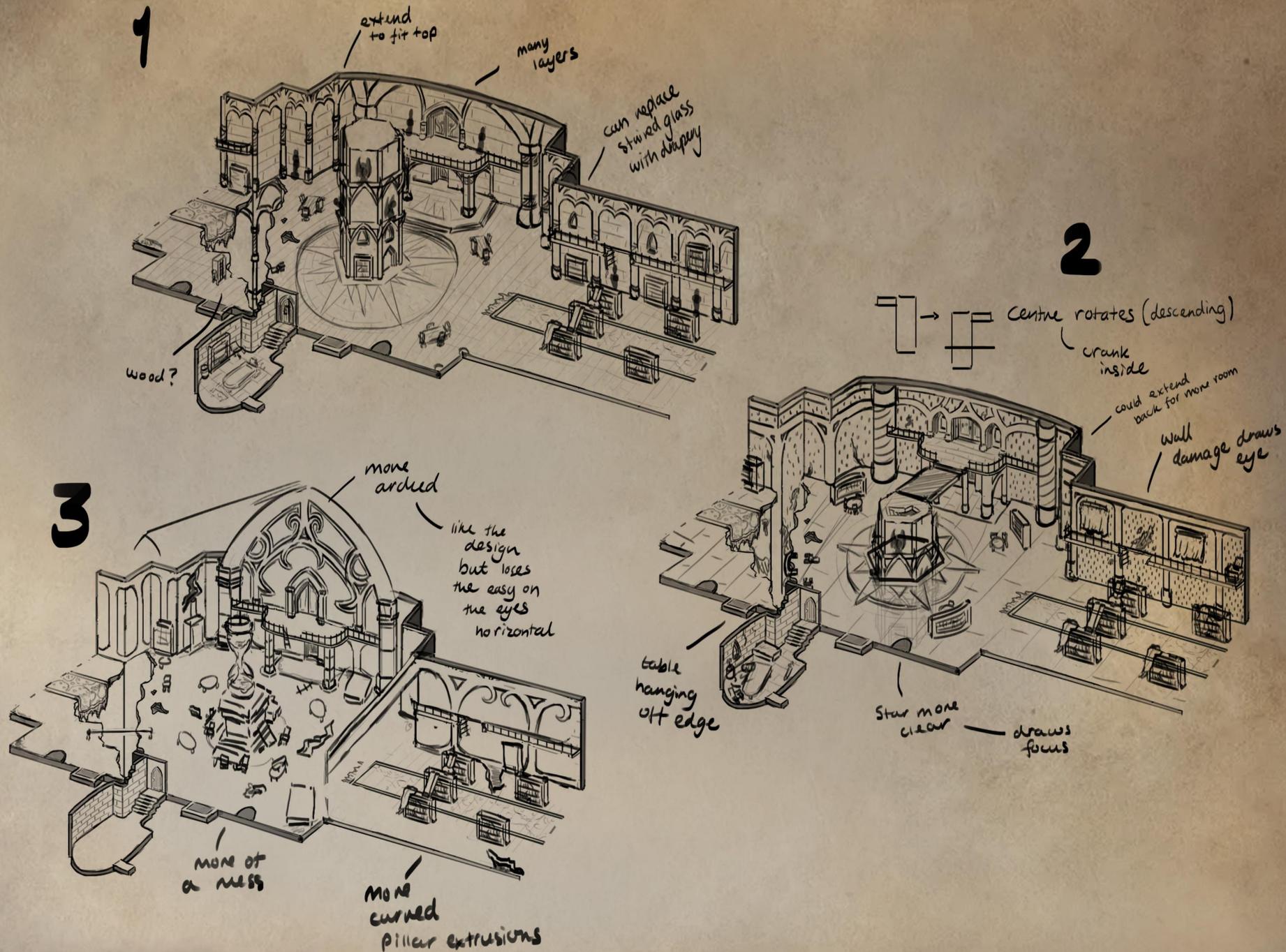




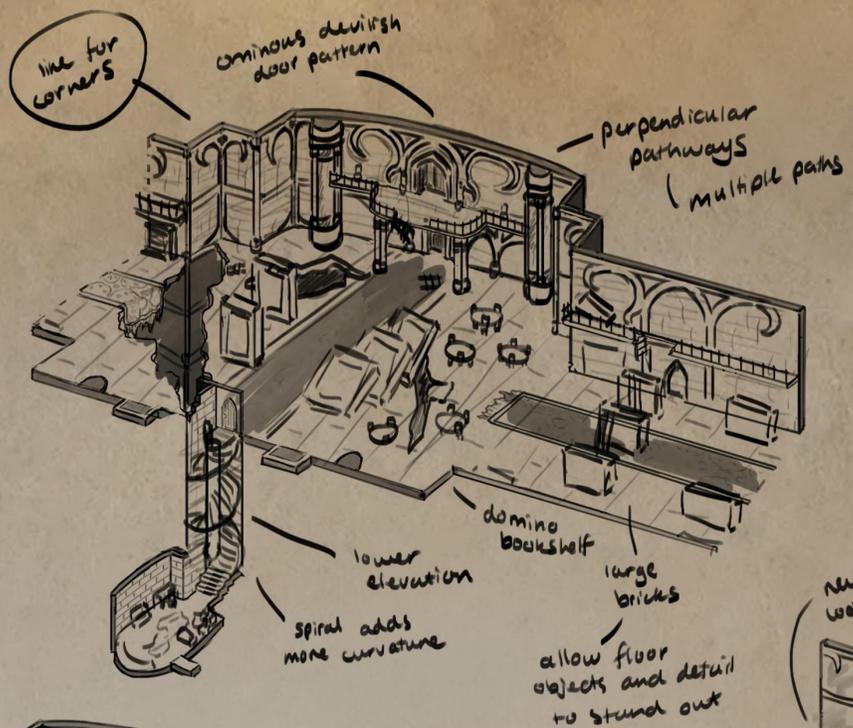
- The accompanying image displays the six variations for the toom I could envision, experimenting with the centrepiece, the pillars, the walls, the flooring, the crack, and more. These can be seen in better detail in the focused images below.

- I focused in on the first three sketches.

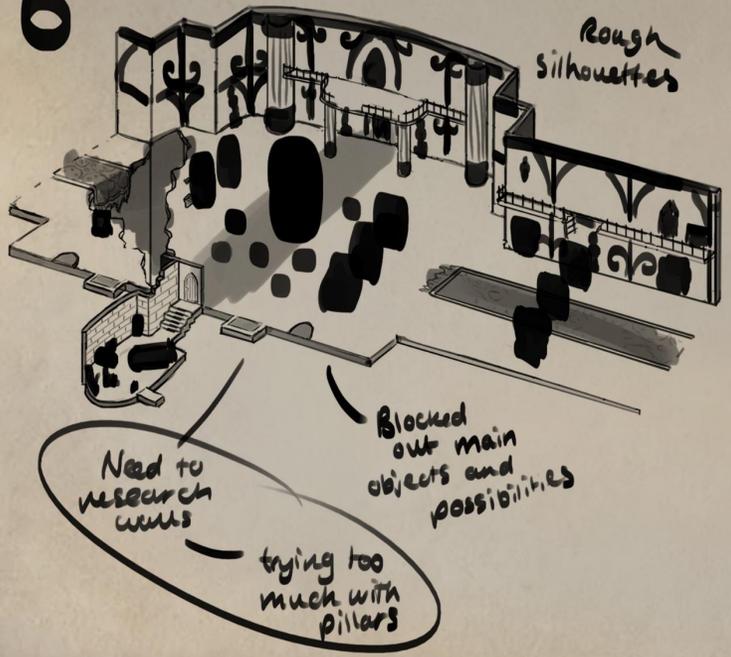
Looking at these three sketches, two areas appear to stand out the most, the centrepiece, and the arching layout of sketch three. As much as I may like the concept of time being displayed with the hour glass, I do find myself preferring the more solid height adjustable pillar in the centre, accompanied by its compass-like star. It attracts attention to this area, which further enforces the focus already from being in the centre of the room. As for the arch, it was explained by a supervisor that it was a more interesting shape to play around with, which I agree on, adding more height and elevation to an already horizontal scene.



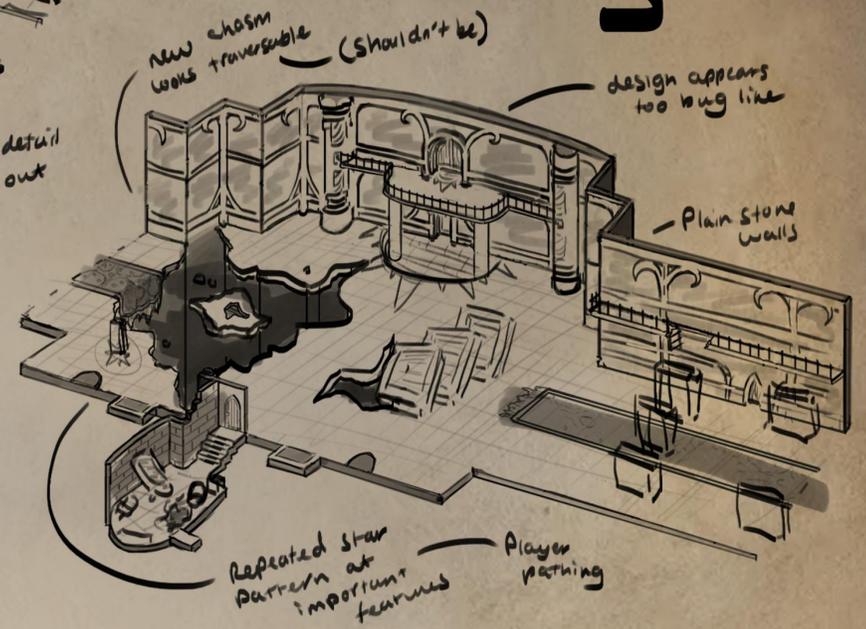
4



6



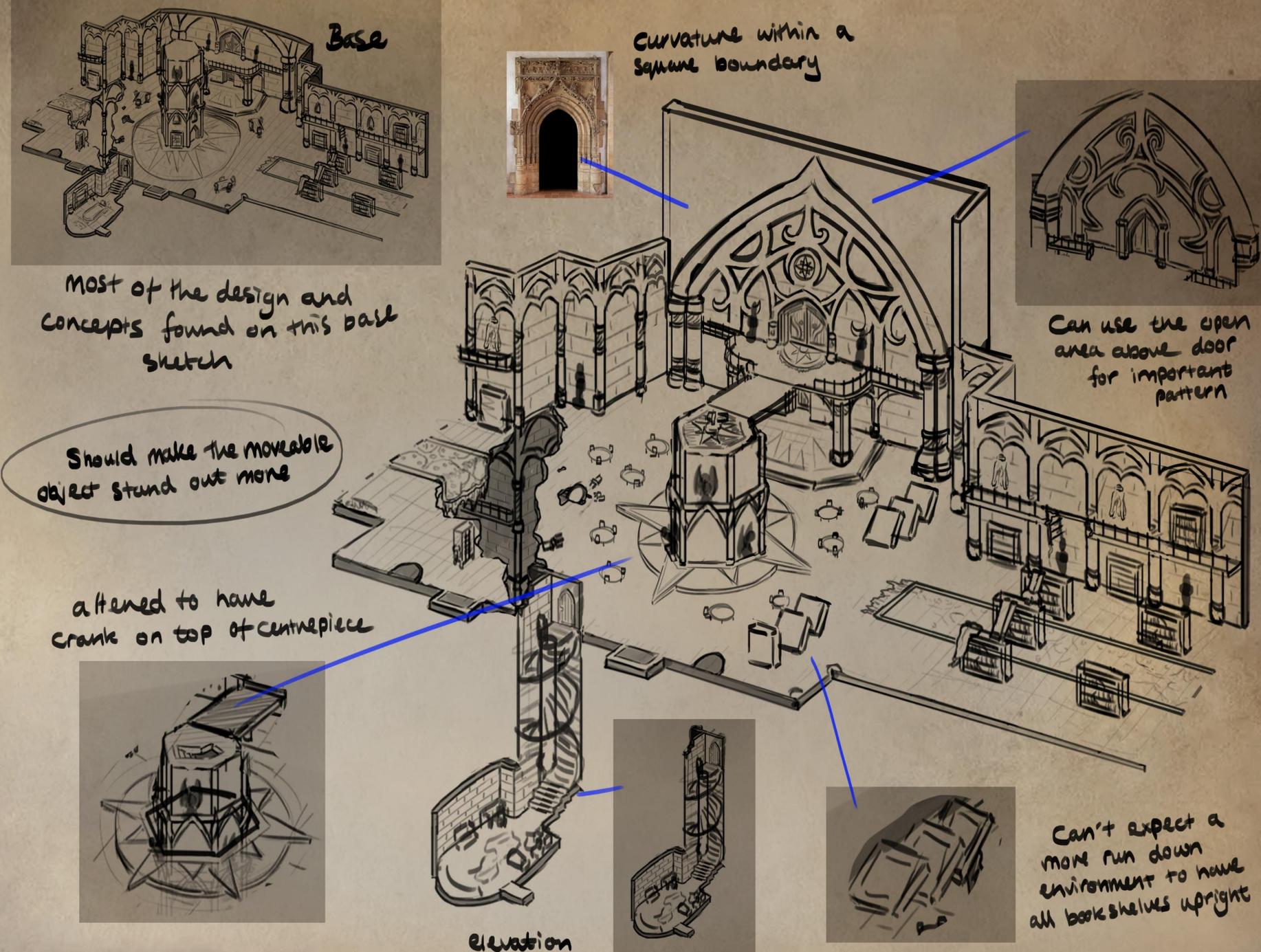
5

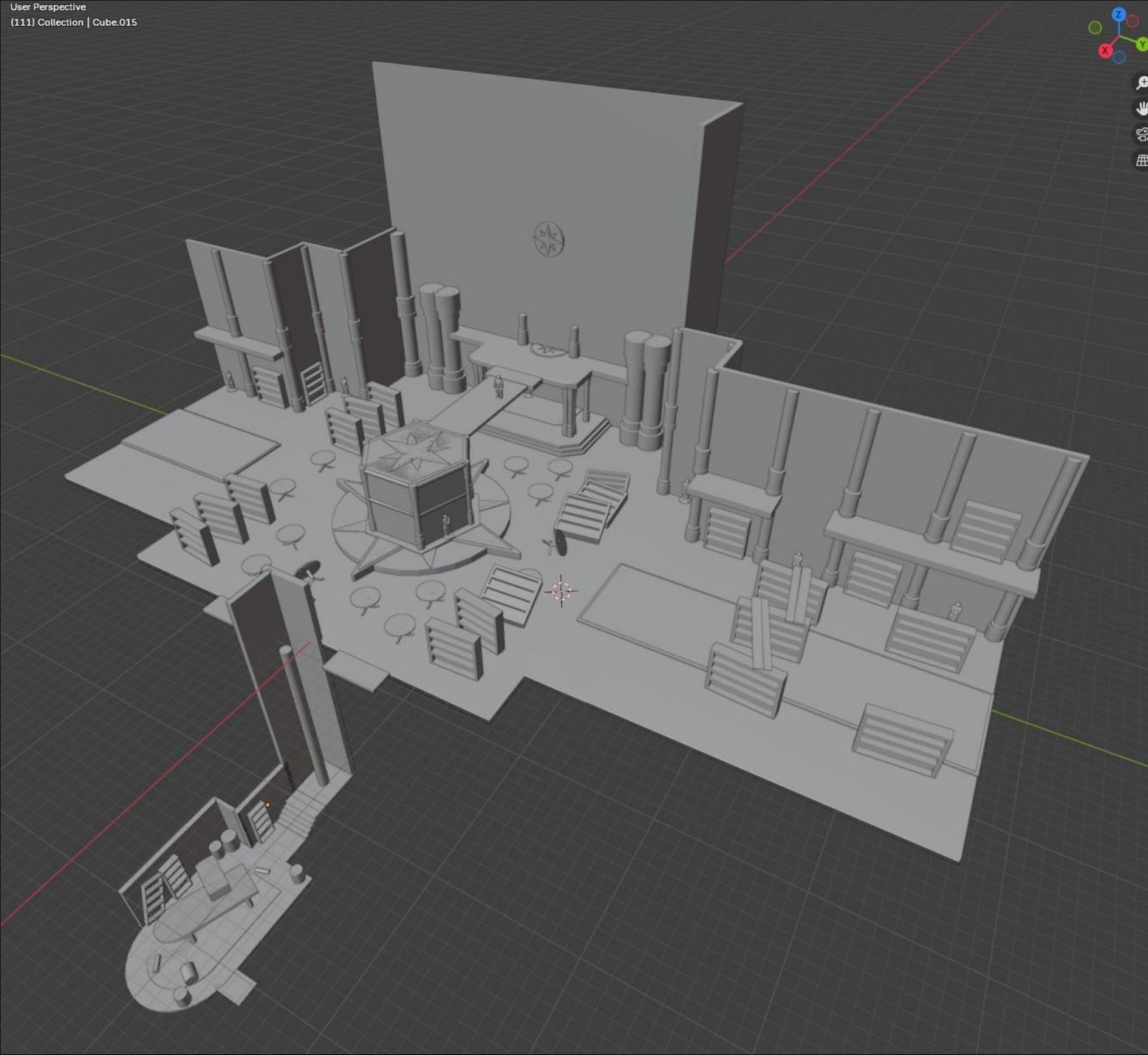


- The next four sketches to be produced were each experimental in their own way. To elaborate on this, four plays with the idea of a spiral staircase, applying more elevation to the scene, five experiments with the shape of the cracked flooring, drawing more attention to the more reality bending geometry below it, and six uses silhouettes to present a centre piece idea, giving a proper view as to the focus of the viewer. As I am pretty attached to the pillar centrepiece idea I am not so sure the larger chasm would fit, giving me less room to work with, also denying any other object detail which could have been applied. As for the spiral staircase, I see no reason not to apply it to my final design, like I said, adding more elevation to a more horizontal scene.

- To the right is a more refined sketch of one of the iterations I took a liking to. As you can see, it displays the features in which I would like to keep, such as the central pillar, rip in the floor and bookshelf pathway. However there are also major adjustments which weren't displayed, like the arched pillar design being heightened, fallen bookshelves, elevation to the bottom-most room, etc...

This is when I began to start developing my design further in Blender.

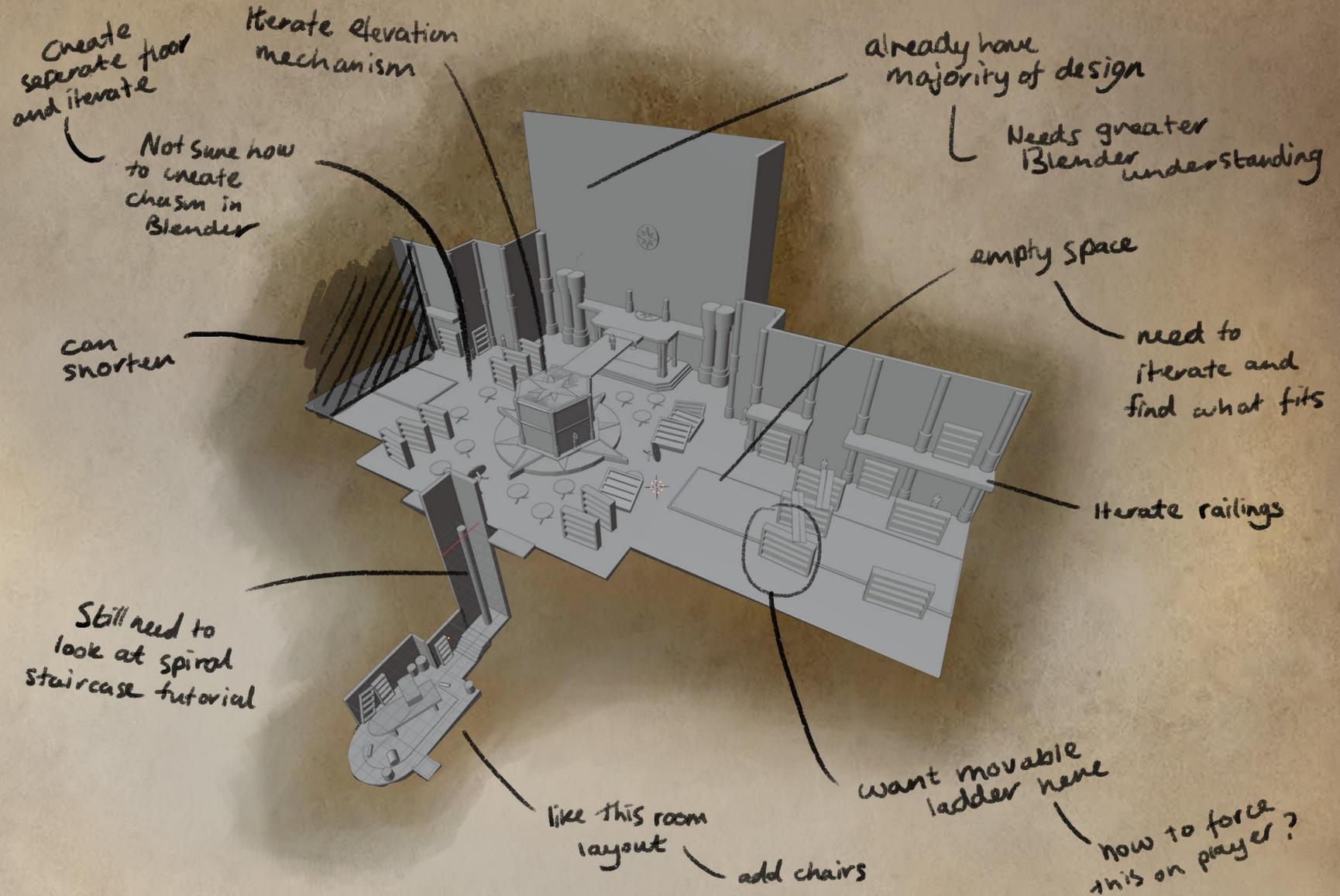




- My first attempts at producing my library design in blender, which mainly produced basic shapes, attributed to my more simplistic understanding of the software at this time: This will certainly be developed further throughout the time of my project, eventually applying more detailed models, texture, lighting and a final set of renders to be painted over in photoshop.

Blender Progression

- Creating my design in blender led to a much more accurate scale. This also led to alterations mainly seen with the centre pillar, which is now much wider, having the addition of an extra thin horizontal separator to make it appear more vertical in nature. With my forgotten and simplistic knowledge of the software, I found a way around this by blocking out more complex shapes with simple shape: This is certainly something which would need to be developed in the future as the polygons aren't in a clear and easily modifiable state. This is also why the curved pillar sections havent been included, as I have yet to discern a solid process in which to create them.



1



2



3



4



5



6



7

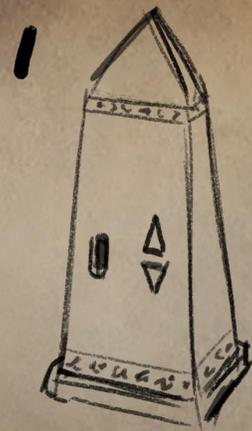


- Moving on, and after talking with a supervisor, it was discussed how a variation in the chasm could be interesting: Mainly how it could be moved to the other side of the room. It would fill the open space I had yet to fill, which was more needed than the space it already inhabited, which can instead be filled with the bookshelves, tables and chairs already seen on its other side.

- I do like how design five looks, keeping the carpet on both sides, however I am not too sure on this as it covers up one of the only spaces which properly display the vast repetitive space of the library, apart for the repeating bookshelves. The idea of floating debris was also explored, which I believe would work better when created and moved around in blender, which appears to have worked better in the perspective of design three, opposed to the perspective of design six. Finally, another idea I attempted to display, which would be better portrayed with blender would be the curving of the flooring, as if the broken area was created from something bursting out from below the floor.



- Requiring a contraption to actually move the elevating platform, I got to the task and produced the accompanying iterations. As annotated, buttons feel too modern whilst others appear a little too unconventional to be recognisable as said elevation contraption. I do like the idea of a water coin system, best fitting design seven, however something simpler like designs two or three seems to be the appropriate choice.

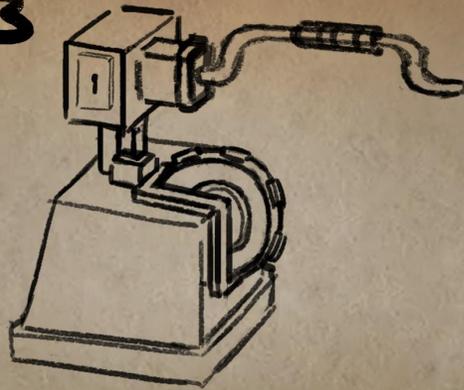


1



2

3



4



5



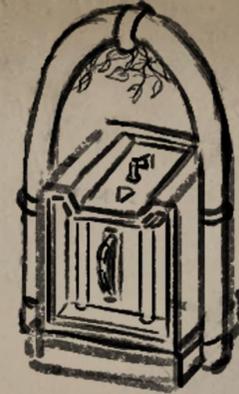
6



7



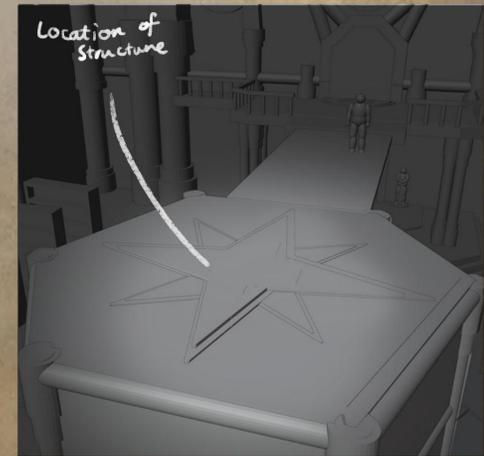
8



9



Buttons feel too modern and simple for gothic style. Mechanical and simpler contraptions may work better, like designs 1 and 2. Perhaps a conventional mechanism can be avoided, instead using coins deposited in water: Can design coin for extra worldbuilding. Other methods range from fulfilling a magical relay using a missing object, silhouette being obvious, to regearing and posing a central knight armour.



Chair Iteration



- Following the previous object iteration, next came the chairs. These won't be seen as clearly in the overall environment view, but will certainly come in handy when producing the pov shots. This isn't as interesting as the table or elevator contraption iteration, appearing quite simplistic. From the collection above I would say that my favourite is design six, but it could be enhanced with the lower section of design eight. Something about design sixes shape intrigues me, making me think of a pelvic bone, subtly planting the idea of death in the players minds through the association to a skeleton.

Table Iteration

- I decided to iterate, producing the accompanying image. I do really like two, five and eight, however I do find that they don't fit in well with the rest of the environment. Instead, something more like design one is more fitting, as it is simple and appears to be mass producible. I would however perhaps make the tabletop less thick, seeing as it currently appears too heavy for the supporting frame underneath.

1



2



3



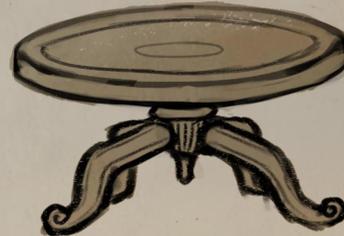
4



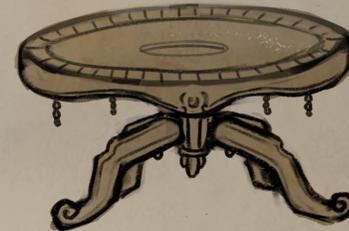
5



6

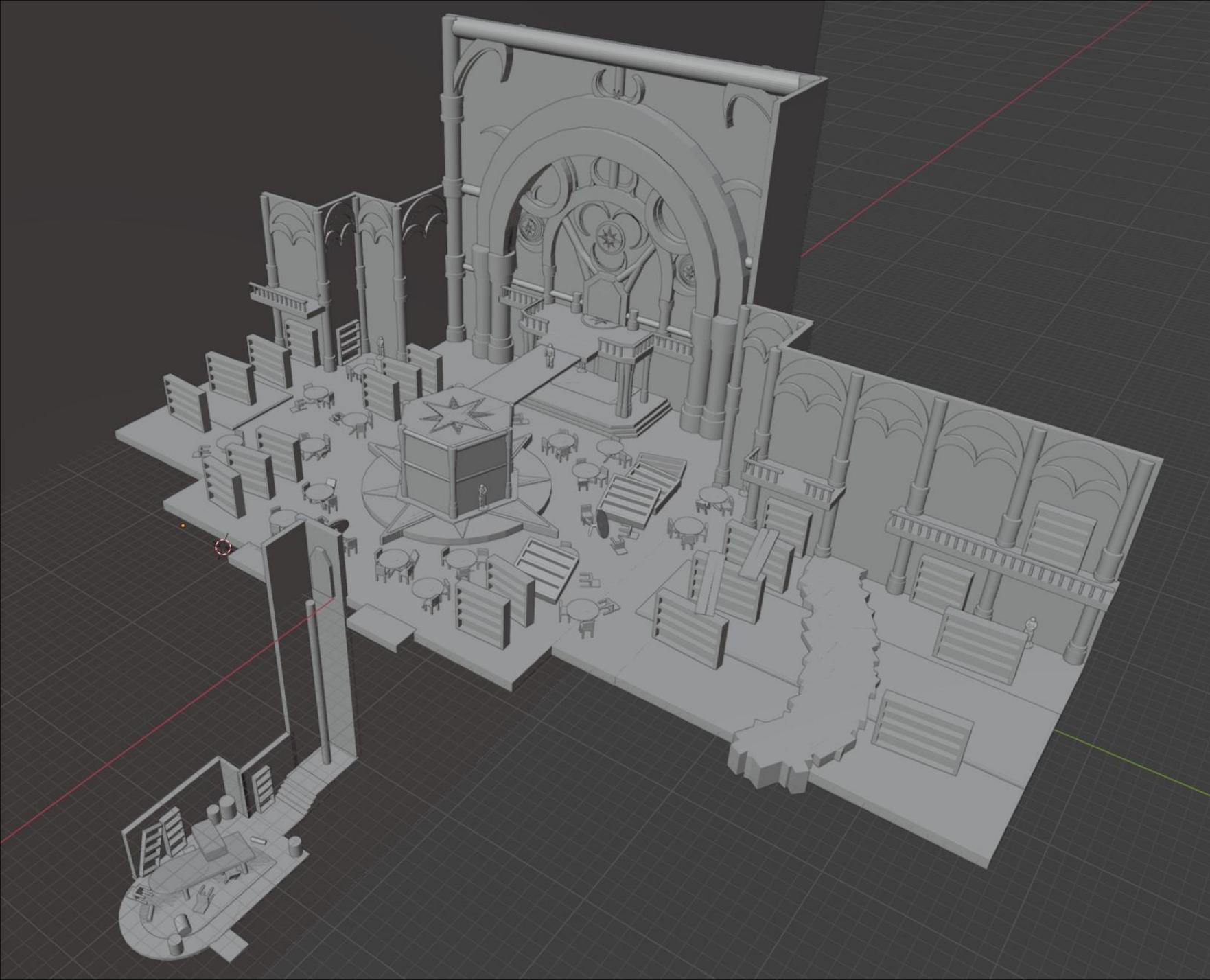


7



8



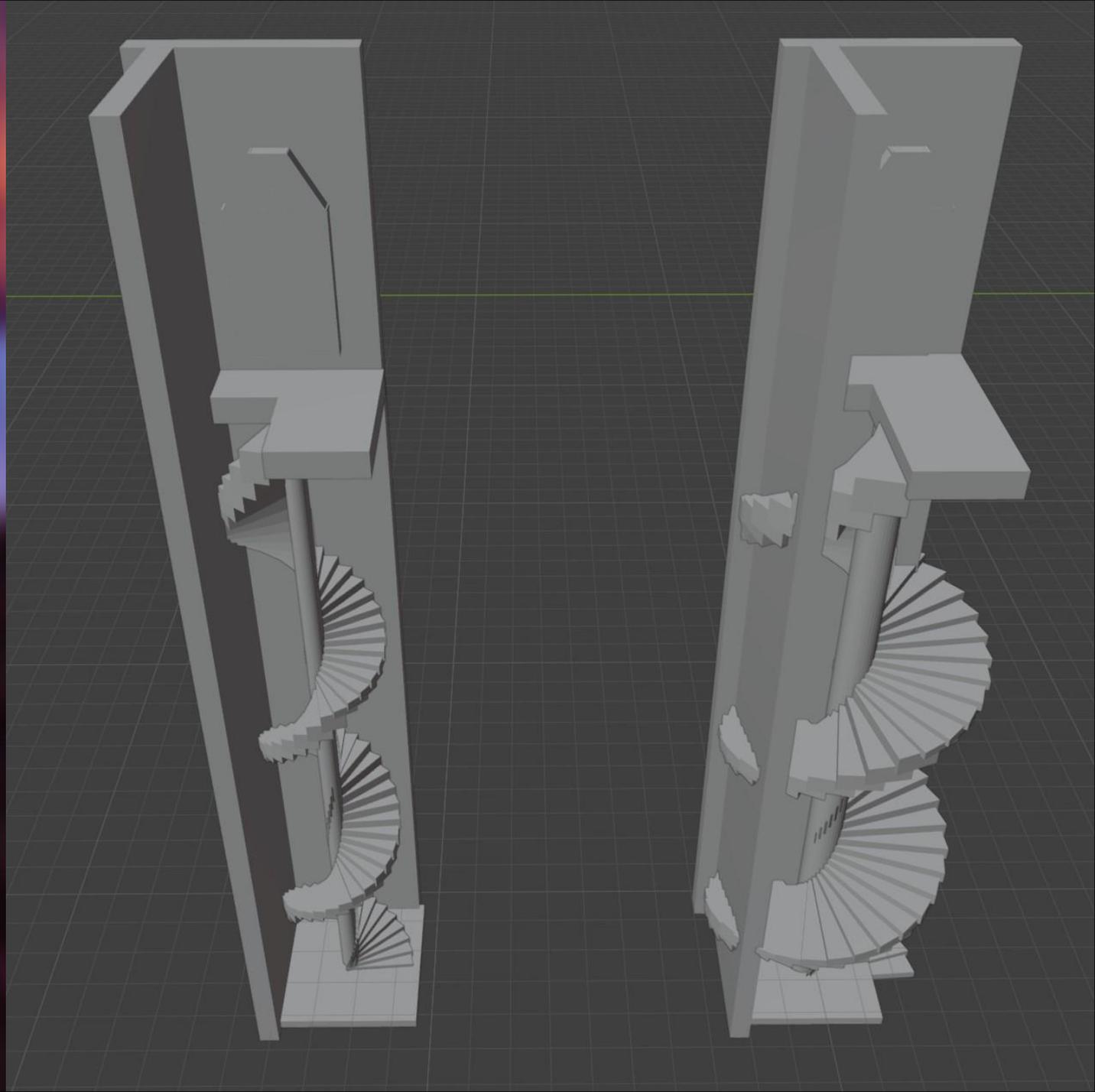


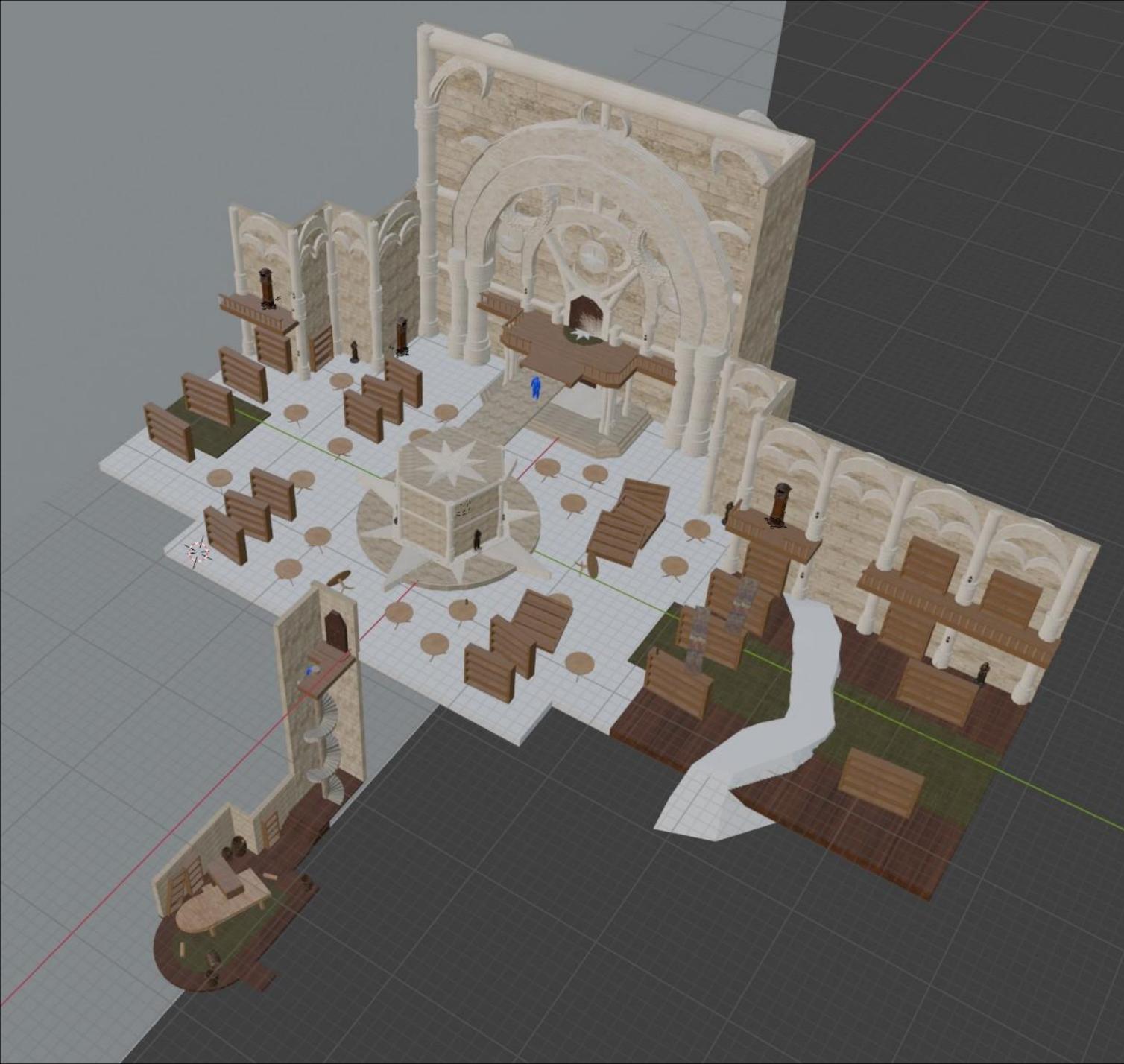
- The state my blender scene was in at the time, having the issue with a non-booleen working floor and a non-existent staircase. I do however have most of the main objects and architecture in place.

My environment appears more full and realistic, especially due to the bookshelves and tables, however most of the work comes from the chairs: I manually altered each chair to fit in different ways, having some tucked in tight, loose, angled and some even fallen on the floor.

- Previously mentioning my lack of staircase, I used a tutorial provided by my supervisor and created two different staircases: I prefer the first which is thinner and appears to fit the scene better as a whole.

I do feel as though the headroom is lacking towards the top of the stairway, along with a lack of a railing, which I had forgotten about as the envisioned spiral staircases had their layout conform to the cylindrical shape.





- By this point, I was testing out materials, not yet getting the hang of it, having the same material applied to various shapes and sizes. This became most clear when it came to the walls, having bricks too small, large or distorted in scale. Another issue came with the broken section of flooring, which is also an issue preventing the boolean from working. A simple recreation of the floor would do the trick in bypassing this issue, applying the wood-planked material to the entire floor.

My ideas of fixing the floor at this time came to simply redoing the floor, which I did end up doing, or posting the floor post-render with a quick photobash.

- Starting to render out my full environment, I had issue with the speed at which it processed the materials and lights, mainly due to the duplication issue mentioned previously. However, I still managed to play around with the lighting, realising that having a high contrast of intense blues from the broken flooring and the warmer hues from the lamps would create an interesting visual. It would also do well to emphasise the difference between the section beneath the floor and the actual traversable level. Despite all this, I forgot that the lighting was to be used mainly for the overall environment view, which would require a much brighter scene, displaying all the objects and architecture clearly. This could however display a good foundation idea for what the pov shots may appear like, with a pretty dark scene, lit by scattered torches and the light beaming from beneath the floor.

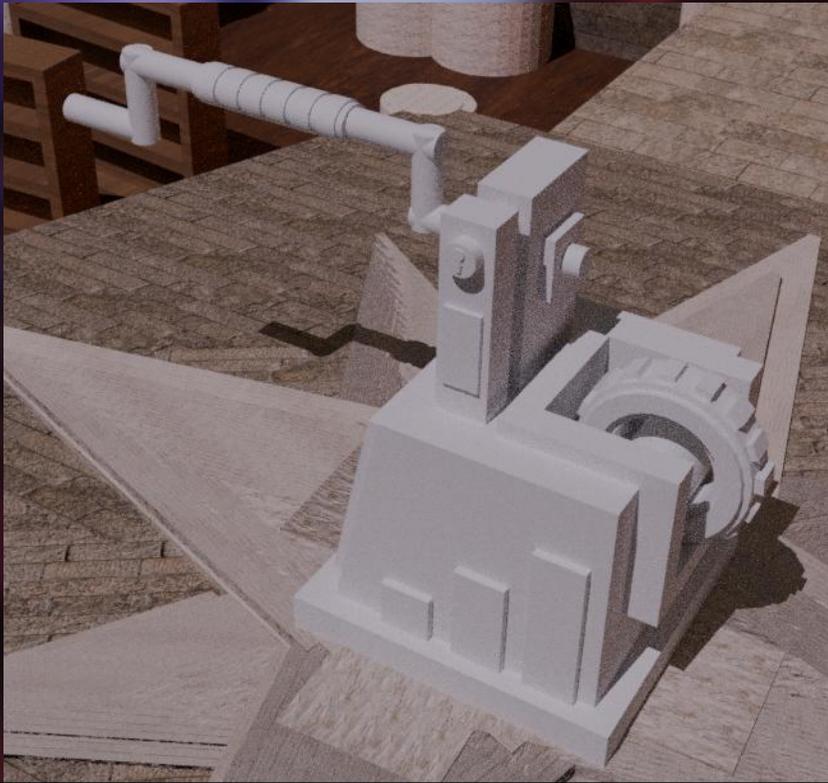




- Not much was adjusted from my previous progress, only increasing the overall value of the scene with a sunlight, allowing for a much clearer view for the viewer to observe. This works much better to display the overall scene, whereas the previous fits more of an atmosphere concept, giving a greater idea as to what the actual environment will appear as when placed within it: Something I will go back to when I render and produce my pov paintings.

- One of the objects I ended up creating for my environment was the important moving ladder/bookshelf. This would be wheeled over from one side of the crack to the other, allowing the player to climb and traverse the other bookshelves. This wasn't delved in to too much, only requiring a quick model, using the previous bookshelves as a base, scaling the width down, only applying some simple cylindrical wheels and collection of altered cubes for the ladder.

- The crank on the central pillar is also important, however more time was spent on its creation, mainly due to its more complex shape. Despite this, it was once again only seen in the overall view, so great amounts of detail and texture would become redundant, having a simple texture placed upon it. I would have liked to produce a greater quality callout of this object, due to its shape and importance to the level.





- The first in my initial rough pov shot, these display the first room the player enters, seeing the more disheveled appearance and the pinched hallway, guiding the player further throughout the level.



The only change seen between the two images is the stone bricked wall to the right of the scene, making me wonder as to whether it added or subtracted from the scene. This was later answered as the latter, as the rest of the environment already displayed the similar brick wall on the other side, but doesn't display the detail of the staircase.

- Moving on, I wanted to try out some new painterly brushes, mainly sticking to a single one I took a liking to, making the paintings seen to the right.

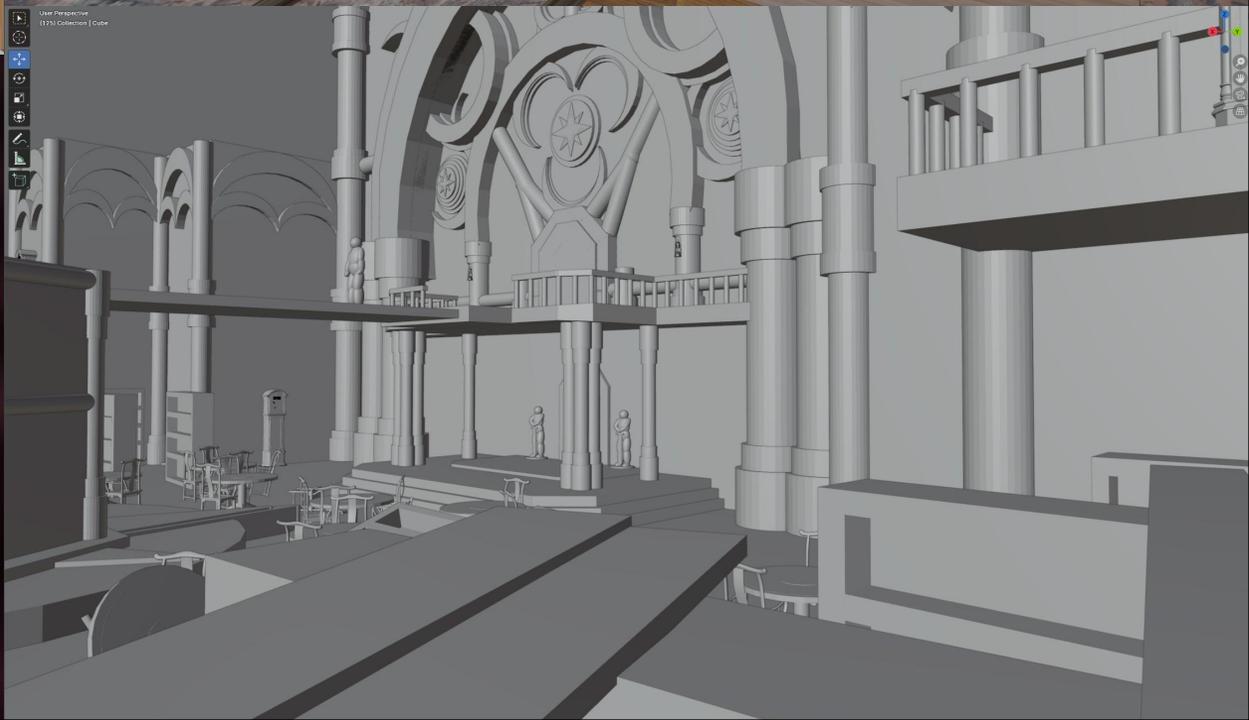
At first I really liked how these turned out, caught up in the enjoyment of using the new brushes and how these came across in my painting, however in hindsight I can see that some areas are too dark, obscuring detail, whilst I was using the soft brush for the lantern lighting: It creates a little lack of harder shadow in this area.





- Lighting was the main focus from the previous point to the images presented on this page. I can see where I wanted to create more atmosphere with darker values, however a lot of detail is lost, and the scene still appears too dull. In retrospect, I believe I should have created a more intense light spread, having a greater value at the staircase to guide the viewers eyes, which would produce contrasting darker values naturally.

Regardless, I really like the composition of this scene, wanting to reproduce the image to a much greater quality.



- Using the camera in blender, I managed to create two perspectives for my more immersive paintings to present my environment. The first, seen to the left of this page, has a much more interesting composition whilst the ones to the right simply display more of the scene. There are two of the right scene as the chairs weren't displayed in the textured version: I was having issue with the textured chairs crashing my blender.



- After further development of my textures and lighting, I went back to the previously seen camera angles, presenting the detail and atmosphere of my environment.

This turned out quite well in my opinion, having all my textures places in a somewhat realistic manner, my lighting giving a greater idea as to what will be lit and what areas will be neglected by the lamps and other details. By this point the 3D was coming more to its close, going back to photoshop to alter these types of renders: These images would begin as the foundation for further development.



- As previously stated, I used the render as a foundation for a colour lookup to be applied, giving me a more expanded idea on the types of atmospheres and emotions I can evoke from the scene, using the various selections, having altered the hues, values and saturations. I did enjoy the mystical purples and cthulu aquatic teals however I found that a darkened version four with a greater saturation of blue would get the idea I envisioned across the best.



- Following this, I did the same process for the other perspective, this time not having too hard of a time deciding on what to use, as in order to make the two POV frames cohesive, I would use the same selection of colour lookup: Version 2. As an added note, I wasn't too fond of the variations held within this page, appearing a little too similar overall, but going too far in their individual main features.



Studies



- Looking in to more detail for my closer rendered pieces, I decided to create various moodboards of some of the objects found within my environment, such as the bookcase seen here.

- Finding various chair images was quite easy as there was many under the context of gothic, old, antique, etc...

There would later help inform my later chair callout, using the bars within the main forms, the curved shapes and red soft seat material.





Table images under the context I was looking for was much harder compared to the chairs as it held less character, mainly being formed for function rather than the more fanciful designs.

Regardless, I did manage to find various which also ended up informing my own table design, but not as clearly seen in my project: I didn't end up producing a table callout, only being seen in the overall view.

- On to the actual studies themselves, I started with the globe. In hindsight, I probably should have started with a more common object like the table or chair, as they would be more likely to stay, whereas the globe isn't necessary: It was eventually not used.

At the time, I broke down different shapes and ideas for the different parts which made up the various references found, really liking the idea seen to the far right of the multiple looping strips of metal orbiting the globe: It builds in to the idea of being engaged and trapped, which will be seen next with ideas brought along by the lanterns.

globe itself

holds together

turn on axis?

magnifying glass

chamfer

either an extra thin layer or chamfer

allows globe to stand out

basic texture

seam

thin

and look like leaf ends

has a table

astrology

measurements

much more technical

more expensive

gold

perpendicular

1 smaller center

4 main

main leg

ball

more stable with 4 or them

names on continents and oceans

all gold

wouldn't fit if many placed

special room

technical and mythical relic looking

globe orb

play into more fantasy

more subtle curvature

extra texture

back separates and non-detailed

Slight curve

reminds of music note

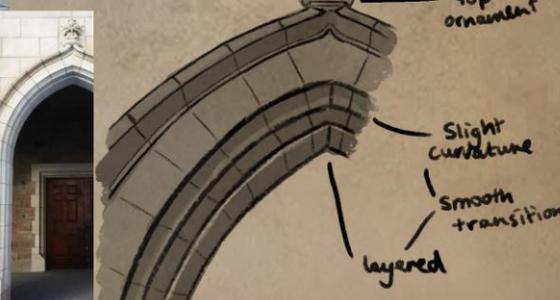
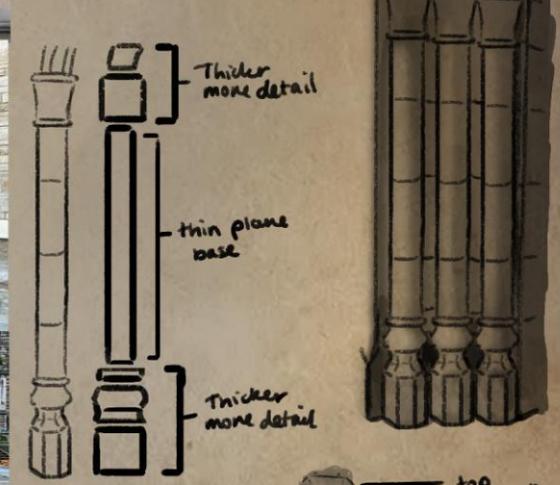
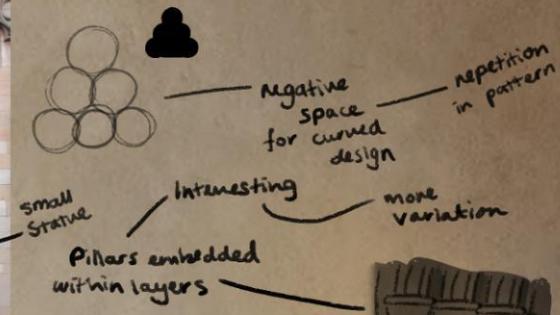
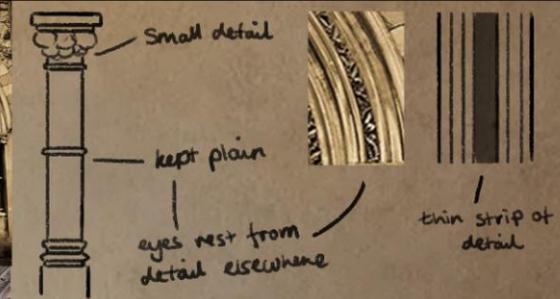
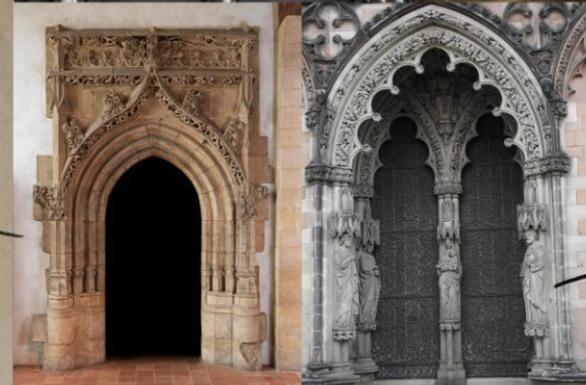
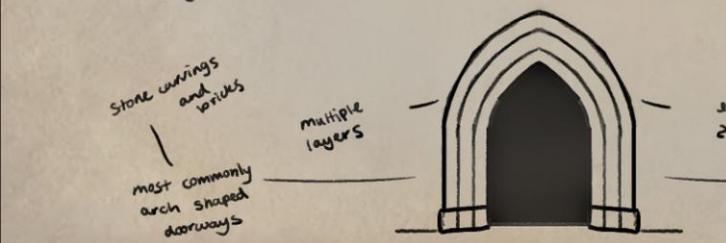
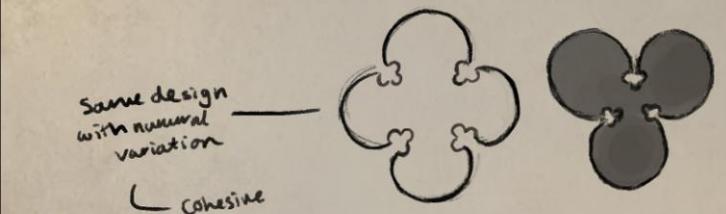
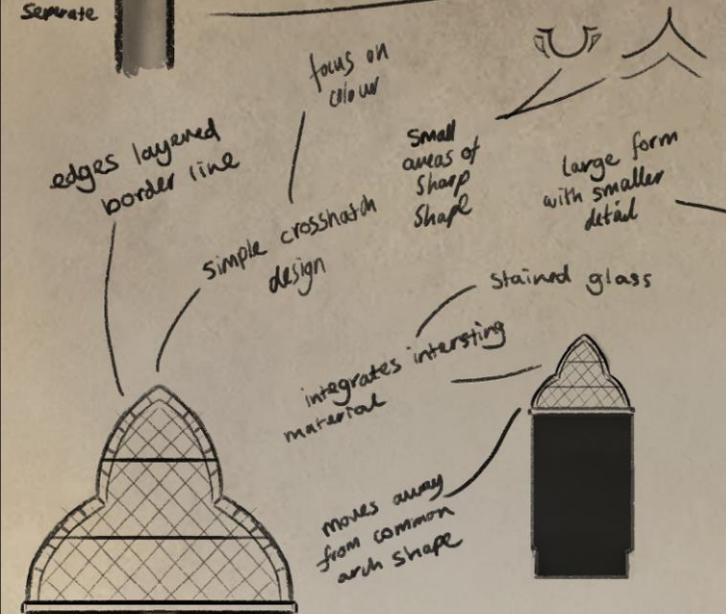
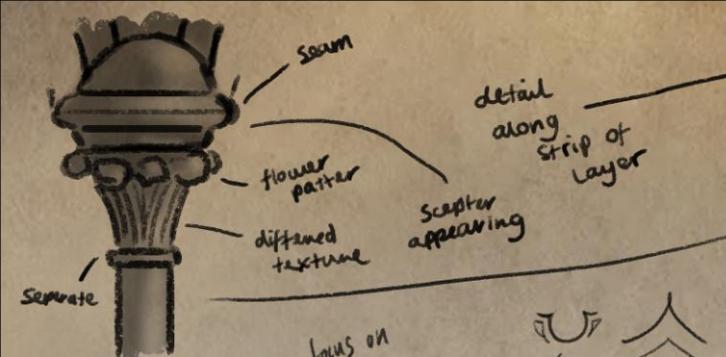
attaches like legs to a plus



- Taking a step-back from the general layout, I decided to focus on an object which I knew would be included, studying different variations of lanterns. From basic and plain to more complex and detailed, they all inform the viewer as to the type of environment they may be placed within and its general atmosphere. When breaking down multiple, it was found that a thick top and thick base would sandwich the thinner, sometimes glass filled, middle. Of course there are exceptions to this, like the top right image, which itself was useful in another way. To elaborate, it presents the idea of a cage and prison, which is an element I would like to incorporate within my designs, as the player is entrapped within the environment.

- Scaling up a previous painting study, I found that a simple ringed handle would certainly be something I would want to incorporate in to later iterations. As for the more complicated designs below the handle, it was difficult to produce, having curved forms in perspective, with that design repeated behind, which was not included in this study: It overlapped and made the design more difficult to read. Regardless, the top thicker base and handle were presented well, having enough contrast to appear more solid, opposed to the softer-looking bottom of the painting.





- As a big focus of the level is to get to a door, researching and studying the doorway, which would also be found elsewhere, would be a good idea. So, I used the above collection of images to break down repetitive shapes, variation in design, multiple layers for smoother transition and depth, negative space and strips of detail. Summing up the important points, there are multiple layers, pillars can be incorporated and circular and sharper shapes can be seen in smaller detail and the point of the door shape. The stained glass design is an interesting one, which would differ from a great deal of other doorways, and allow small areas which would be occluded to be seen through transparent coloured glass.

- Being a gothic environment, pillars are an important aspect, being strong supports and being incorporated in to other elements: This was discussed in the doorway study annotation. These studies display the greater range of variation which can be produced, splitting the main support in to one large angular base to the quadruple smooth collected supports. They both evoke stronger feelings and atmospheres, with the quad pillar seeming more elegant and less supportive, which I believe fits well with the spiral study in the top left. Speaking of, I really like how this turned out, spacing the detail enough to not overload the viewers eyes like the knotted study to the far right of it. More ideation and personalisation will need to be produced, fitting cohesively with the rest of the scene.

The image is a collage of Gothic architectural photographs and hand-drawn sketches. The sketches are annotated with handwritten notes in black ink.

- Top Left:** A photograph of a spiral column. A sketch of it is annotated with "screw shape" and "interesting".
- Top Middle:** A sketch of a column capital with a cross-like detail, annotated with "intricate detail" and "metallic".
- Top Right:** Photographs of Gothic capitals and arches.
- Middle Left:** Photographs of a Gothic interior with multiple columns and arches.
- Middle Right:** A sketch of a capital with a knotted design, annotated with "less solid", "spreads out", "variation in material", and "most detail would be lost from informative view".
- Bottom Left:** Photographs of Gothic arches and columns.
- Bottom Middle:** A sketch of a tall, slender column with a fluted top, annotated with "more detail and sharp shapes at top" and "Simplistic".
- Bottom Right:** A sketch of a capital with a web-like top, annotated with "Very complicated knotted design", "Simple blocked out shapes", "Splits off", "reminds of a web", "Some holes and decay", "more angled", "detail running along top", "Repeating centred shape", "Symmetrical", and "circles and triangles".
- Far Right:** Photographs of Gothic arches and capitals.



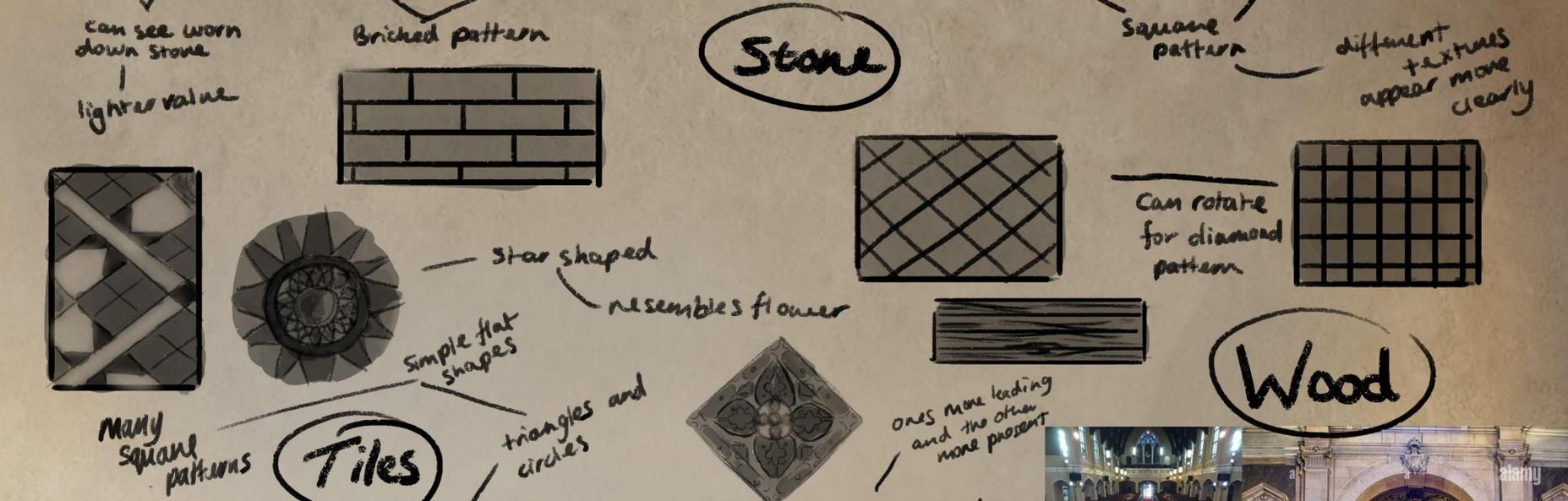
Simple circles with numeral variation
seen in previous studies

All doors take an arched form
Most doors have metallic detail
Metallic detail is curved and vine-like



- As doorways were studied first, it is only natural that doors would follow. The main differences I could find were in the design held on the door, often in an interesting metallic design, whereas all I could find were wooden, often planked and fit their doorway shape: The glass top image also does this, simply putting the glass design within the door. As the references found were quite similar, a broader range of studies would have been less efficient than getting an idea for reproducing one of the designs, painting on the wood, the layered elements atop and the stone surrounding it. The more curved metals contrast well with the solid blocky planks running up the door, also being easy to look at by the repeating patterns observed. A non-coloured painting can also be seen beside the main painting, giving more of an idea towards the value, not presenting with distractions of colour.

- Next came some basic floor studies, taking from the main three materials of tiles, stone and wood. As can be expected, there isn't much to iterate with basic wood and stone flooring, whereas tiles allows for some more interesting patterns and designs. The circular pattern surrounded by triangles was inspiration for the compass-like pattern beneath the centre pillar in my current refined work. I do not feel as though I am at a point in which the flooring will be solidified at the moment, but this image can be referenced at a later point, when I am ready.



Final Renderers

The Library - Library Overview



The Library - Library Overview

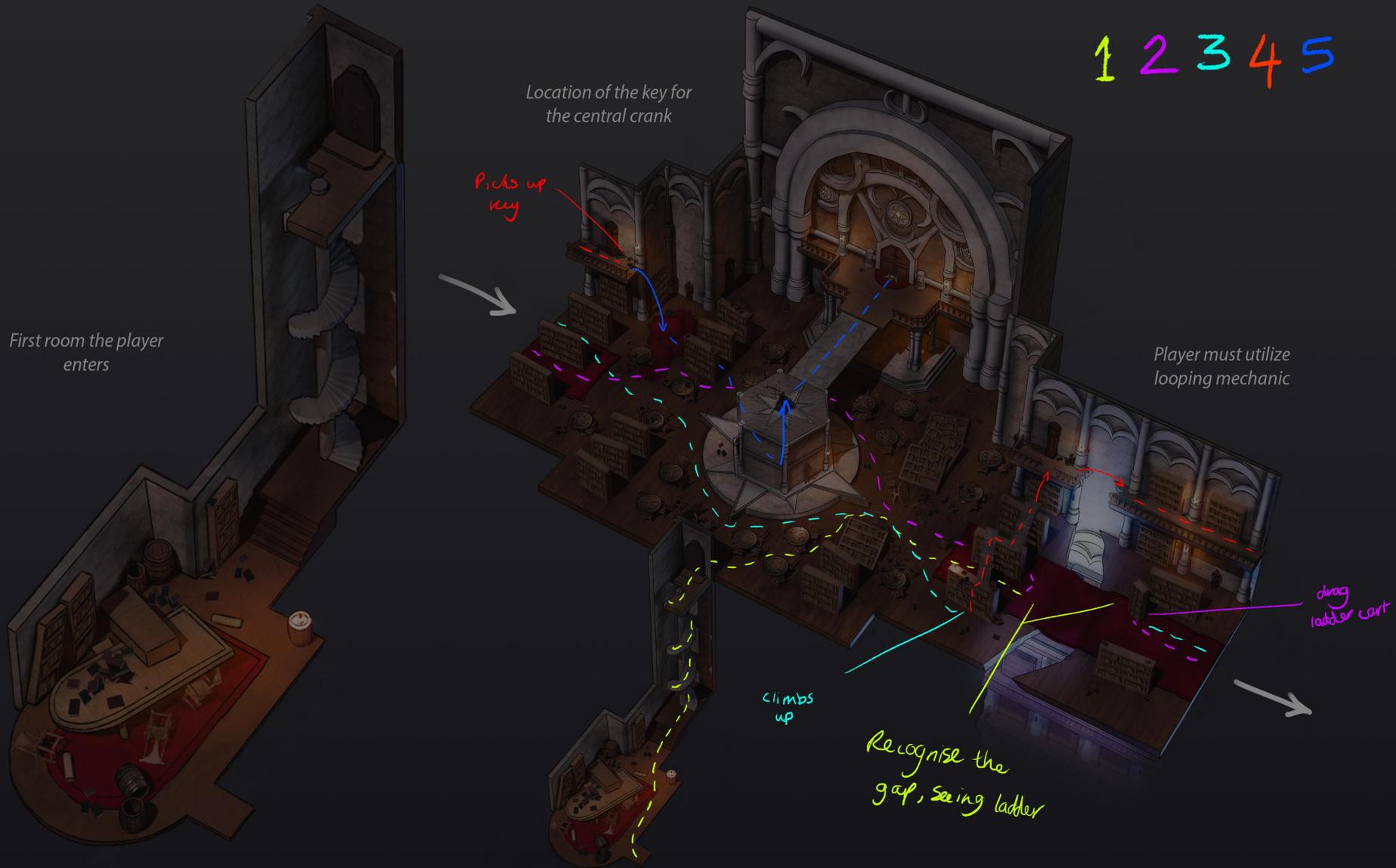


- To get to this point, I used the previously seen 3D render, first applying lineart to the majority of the objects and structures within the scene. This made the forms more separated and clear, leading the application of further texture, light and shadow much easier as form wouldn't be lost as easily.

- This environment is one of the best I have produced, being a massive improvement from the project created before, mainly attributed to the greater usage of 3D. It not only made the whole environment appear so much clearer and realistic, but with more usage of the software to become ingrained in my head, would also vastly decrease the amount of time spent to produce such a piece.

It is clear and concise, with my main issues coming from the closer detail. To elaborate, from far away the scene doesn't take away from the reality so much, but the wood from the railings, tables, chairs and bookshelves would not be as stright and uniform. There would also be more texture and indentation within the floor, with time wearing areas down. Regardless, I still vastly prefer this environment to any other I have produced.

The Library - Library Overview



- As this project was based off the problem of guiding the player, it only makes sense to display the path the player would take, if they knew the shortest way. I have displayed this in various colours, with their order also displayed with their corresponding colour in the top right of the image.





- The first of the two perspective shots, it is by far my favourite, already mentioning what I believe to be its superior composition.

- As for the image itself, I find that it turned out quite well, balancing the lighter values with the darker values, having the planks path, lighting and overall composition guiding the idea to the gap in the upper level.

More life is also brought in to the scene with the various books filling the bookshelves, which makes a vast difference when compared to when the shelves are left empty. This was achieved with a quick google image search of a bookshelf, lasso cutting out a shelf of books and manipulating four layers of books to be repeated throughout all shelves seen within the scene.

Apart for the composition, I believe the main feature which makes this scene appealing comes down to the lighting. To elaborate, the warmer oranges contrast with their complimentary cooler blues, only enhanced by the darker values making these areas the only ones to stand out best.



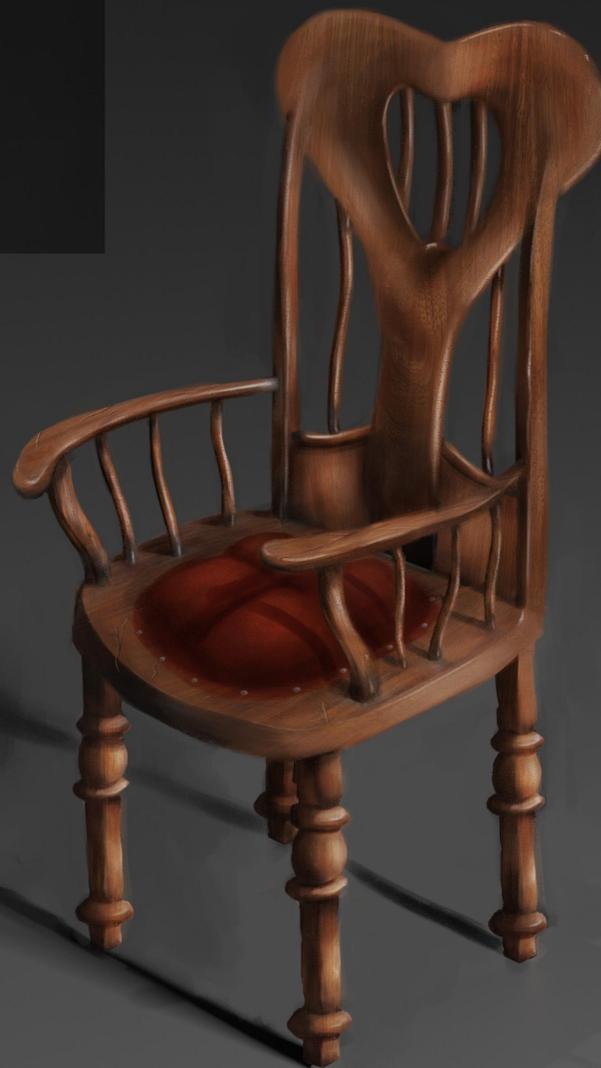


- The second of the two perspective shots, which didn't turn out as well as the other, but still managing to display some areas of the scene somewhat well.

- For being the scene which holds the most amount of detail, it displays less of the environment in a less clear manner. This can mainly be attributed to the values, being too dark for the most part in an attempt to produce a high contrast for the lighter values to draw the viewers eye. This can be seen with the brightest values seen in the lamps, either side of the door: The main goal of the level.

Despite this, I still do like the idea of the brighter values found at this point, really drilling the idea of its importance to the viewer, but just lacking. I also really enjoyed having the foreground planks of wood, using the render, some photobashing and a little paintover, which does appear quite realistic, but perhaps would have done more for the scene if this foreground was instead blurred, giving more focus for the actual focal point of the scene.

Chair Callout



Chair Callout



- Being the only callout, I felt I should choose something which is seen countless times within my environment, which would also hold a lot of character: I ultimately decided on the chair.

- Whereas the whole environment and POV shots had a great amount of time spent planning and rendering, not nearly as much was spent on this callout.

I initially used the base asset used for my chairs in my environment, producing a quick render in a new file. I then simply painted over these renders, applying more texture with photobashing, and applying some minor shadow and lighting with a multiply and colour dodge layer: With recent issues of overusing soft brushes and colour dodge, I became more aware, acting with more restraint.

As for how these turned out, they are some of the most realistic objects callouts I have produced, best seen in the thinner areas at the arm rests, but more lacking in the legs with larger brush strokes. Regardless, these were somewhat quick to make whilst being of a good quality.

Conclusion

A great deal of time was spent in the development of this project, and I feel that it shows with the amount of research, studies and the quality of the work ultimately produced. That doesn't mean there weren't any issues within the development or with the finished products, just that the development stands out more towards me.

As for what was developed, this would mainly have to be my knowledge and ability with using the 3D software known as Blender. Following that from afar is the usage of colour lookup in photoshop, along with more restraint with colour dodge and soft shadows, which I will definitely want to replicate, remedying my common issue of overuse in these areas. However 3D was developed vastly more, which shows in the final product. To elaborate, my previous environment project, which sure had less time to be created, turned out much less realistic than the final renders seen within this project. 3D played a huge role in this, with its modelling, texturing, application of assets from polyhaven and mixamo, and so much more.

I have already discussed some of these points in my previous render annotation, replaying the fact that with further development to keep my 3D skills polished, my entire art process may change with the ease and reduced time to produce much higher quality artwork. However what I didn't discuss as much was the earlier development: Initial iteration. The research and moodboards were a good start, however I am lacking when it came to my bluesky iteration, which I believe did end up limiting my experimentation when it came to the concepts which could have been explored with this project. One example of this could have been with the gravity having out of bounds walls appearing as floors for other bookshelves to align across, taking inspiration from Maurits Cornelis Escher environment prints. More time spent in this area, allowing for a greater branch of ideas to be brought forth is something I am lacking for this project, and will remember when starting my next.

As for where I would like to take this project further, I would have liked to have produced some more callouts as it is quite a large scene I have presented. These would have been the lantern and the central pillar crank, seeing as I have focused in on a study for the lantern and that the crank is one of the most important objects within the scene. Also, I would re-render the second POV shot, increasing its value and applying all the annotated improvements I previously mentioned.

Ultimately, this was a great project for developing my skills, knowledge and quality of art whilst also informing me as to where I am still lacking, showing me where to move forward.