

Multiplayer Level Design

CREATING A NARRATIVE AND ASYMMETRICAL MAP IN OVERWATCH



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Introduction

I have been playing Overwatch for a few months now and I have been fascinated with its maps from the start. Each one is unique, attractive, and full of details that give out all the lore we want if we observe carefully. To me, all the narrative background we get while playing it like any other FPS game is amazingly clever. But those details are not the only things that make Overwatch such a successful game. When you think Overwatch, you think team.

And a team is not without frustrations, because when a company opens up its MMO game experience so much, you will get disparate teams with different experience goals in mind. The only possible thing to unite them is to induce the idea of *winning, together*. And Blizzard seems to be good at reaching both goals in Overwatch, at uniting people while giving them different game experiences.

How do they do that? What makes their maps a great base for innovative group strategies and individual game experiences? The only way to find out, with my own skills, is to create a map myself. You could thus sum my research problem as such: **how do you create a narrative and asymmetrical map in Overwatch to offer an extensive experience to all players?**

I will thus explore the question by going through three stages. In part one, I will research Overwatch lore as well as narrative and multiplayer level design. In part two, I will study an existing map, Paris, and analyse its arrangement. Finally, last part will be dedicated to the creation of my own map, Vishkar.

A side note, this project is a shared project between me, as level and narrative designer, and Melusine, as the graphic artist that will create modular 3D props to make the map beautiful and as close to a real map as possible.

I. Preliminary studies

1. OVERWATCH PILLARS

“**Overwatch** is a vibrant team-based shooter set on a near-future earth. Every match is an intense 6v6 battle between a cast of unique heroes, each with their own incredible powers and abilities. Clash in over 20 maps from across the globe, and switch heroes on the fly to adapt to the ever-changing situation on the field.”¹

From the start, the Overwatch team stated four global pillars to define their game²:

- **DIVERSITY** in story, culture of characters, places, technologies and architectures.
- **HOPE** into the future, worth to be fighting for.
- **DYNAMISM** of places, characters’ animations and proportions.
- **CRAFT** vibe, everything made with love and style.

Those pillars are central and helped define afterwards the four level design pillars:

- **HEROES FIRST** – each map exists to be a narrative support to heroes and to propose sandbox moments.
- **DIVERSITY OF EXPERIENCE** – maps must be a mix of chokepoints and open areas, adaptative to different kinds of players’ playstyles and skills levels. Dramatic lightning is very important to highlight the ambiance and atmosphere.
- **CLARITY OF SPACE** – simple and elegant design, allowing easily understandable navigation with an affording core path and environment objects visually distinct (blocking, destructible, can be shot through, etc.). An additional depth with side routes will be discovered when players get better.
- **IMMERSIVE WORLD-FANTASY** – epic and awe-inspiring environments, with landscapes showing off in the distance for immersive lore. The player should want to physically go in the map and explore furthermore.

Today, Overwatch is offering twenty-one standard maps for thirty-one heroes. And indeed, each map is linked to one or more character(s), giving narrative justification as to where and why the action happens. Those narrative bouts certainly give a solid consistency to the game and are heavily supported by all the transmedia published by Blizzard (comics, short animated films, merch, etc.). And this consistent narrative that goes through a map is what attracts me and what I will especially explore in this study. But first, let’s see what we know about narrative design.

2. NARRATIVE ENVIRONMENTS AND MULTIPLAYER LEVEL DESIGN

I didn't know much about narrative design in videogames at first, all I knew was cinema oriented and came from scenario classes I had a few years ago. Jolie Menzel's workshop³

¹ playoverwatch.com

² All info about pillars was found in [The art of Overwatch](#)

³ [“Level Design Workshop: A Narrative Approach to level design”](#) GDC by Jolie Menzel

triggered my memory and gave me another way of contemplating storytelling in a video-game perspective.

In her terms, there are six traditional questions found in all writing studies that you can begin creating narration with: **who, why, where, what, when, how?** She then proposes to separate those in two categories for narrative design use: Story Constants (who, why, where), that have the same goals in all medias, and Game Variables (what, when, how), which differ due to the particularity of video-games.

I liked the idea of those parallels for Game Variables, here they are detailed:

- **WHAT** = *plot/events* = mechanics and gameplay used in the game.
- **WHEN** = *timing of events* = game pacing and flow of gameplay, determined by Incentives and Deterrents to push or slow down the player.
- **HOW** = *presentation of the theme with a defined tone* = cameras and viewpoints, lighting, colour pallets, writing, character performance, music and SFX.

Those indications could help me transition from traditional storytelling to video-game storytelling, and they emphasized what I had previously understood from Jurie Horneman point of view⁴: narration and mechanics are two pieces of a same coin and must define each other. When building a map for a game like Overwatch, those two pieces were especially taken care of, because both were pillars of the game since the start.

But how do you reconcile a narration, usually destined to one player at a game, with multiplayer gameplay and mechanics? How do you arrange the game in a way that narrative experience and social experience both have a balanced part in it? Those questions lead me to an interesting GDC by Elisabeth Beinke-Schwartz⁵ about how different single-player levels were compared to multiplayer ones.

Most single-player levels are built on a big narrative set, with a focus on storytelling and clear objectives generally shown by weenies⁶ and/or environmental design. Meanwhile, in multiplayer levels, all is about teams and strategies of advancement, as well as alternative paths clearly shown and which accessibility depends on the players' skill level and/or playstyle. Weenies are here replaced by tight lines of sight, because each player deserves a balanced chance of winning or losing, to simply avoid frustration from incomprehension of why he died.

The most important lesson to me though was the idea that multiplayer levels needed a lot of iterations, because it is the whole structure of the game that's important, since the players would play it several times. That iteration consequently needs many

⁴ [“The design in narrative design”](#) GDC by Jurie Horneman

⁵ [“Level Design Workshop: Singleplayer vs. Multiplayer Level Design: A Paradigm Shift”](#) GDC by Elisabeth Beinke-Schwartz

⁶ [Disney explanation here](#) and [Level Design explanation here](#)

playtesters at once, which is not something I have available for my study. Most of my theories will thus stay untested and unverified except by me on my blockmesh.

Overall, Elisabeth's conference made me realize how complex it was to create a level while thinking about more than one player. It is especially true and even worst in Overwatch, since those players all play different characters, and those are, as we saw earlier, the most important part of the game. Their specific gameplays mean that level designers must think of all thirty-one heroes at all time while designing an Overwatch map. The mental charge is enormous, and I cannot pretend to be knowledgeable enough of those characters to create a map from scratch. I thus decided to first study an existing Overwatch map from top to bottom, to try to make parallels between heroes, situations and level design choices on it.

II. Analysing an existing map, Paris

1. ASSAULT MAPS AND ASYMMETRY

Overwatch has four types of standard maps on which players fight in teams of 6v6:

- **Escort maps** – escort a payload from objective A to objective B.
- **Control maps** – three maps with one central objective to take full control of.
- **Assault maps** – take full control of objective A then of objective B.
- **Hybrid maps** – Take control of objective A then escort a payload to objective B.

Since I am foremost interested in asymmetrical level design, Control maps are out of the equation. Assault maps interest me for two reasons: they are exactly asymmetrical in pure design thinking, and they are the least liked maps by the community. And on the other hand, Escort and Hybrid maps are the biggest ones, which is incompatible with the time I was given to experiment. My pondering thus led me to develop an Assault map.

Next is a more detailed explanation of what goes on in an Assault map (quick play mode), also referred to as 2CP (Two Control Points):

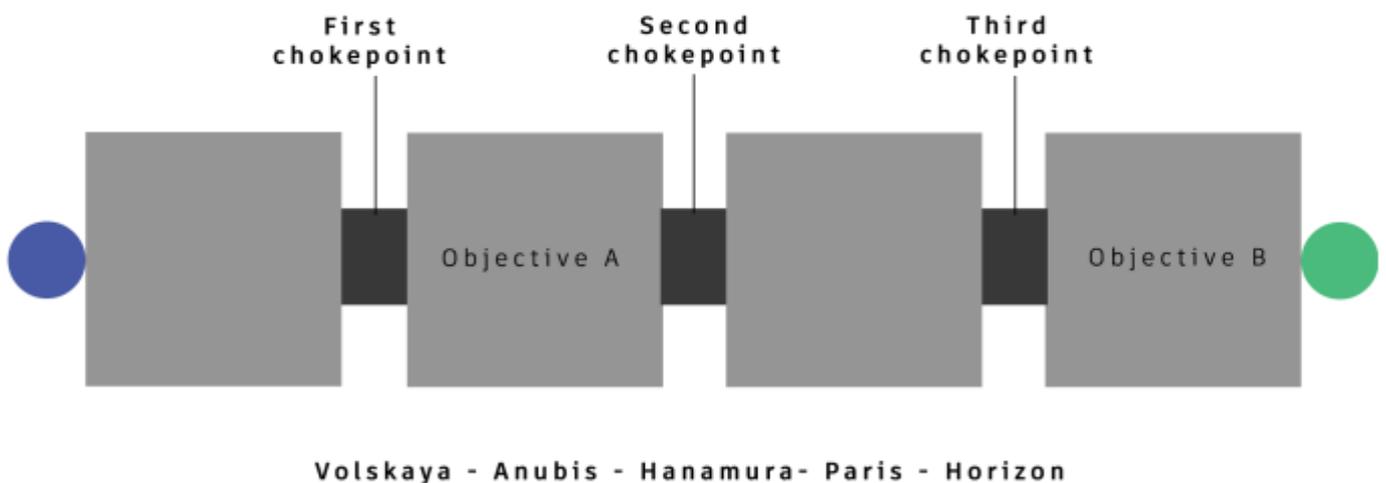
- Defenders and attackers both have 45 seconds to choose a character and form a balanced team⁷.
- Defenders then have 45 seconds to take position on objective A, near to attackers' spawn where those are waiting.
- Attack commences on objective A. Attackers have 3 minutes to capture the three thirds of it. If they fail, it's a defeat. If they win, they can continue to objective B.
- When Objective A is taken, Attack spawn is switched next to it. Attackers have 3 minutes (starting right after full control of objective A) to control the three thirds of objective B. If they fail, it's defeat. If they succeed, it is a win.

⁷ Since Overwatch update 1.39.1.0 on August the 13th (2019), rolequeue renders mandatory the classical 2 tanks – 2 supports – 2 damages formation on Ranked games and incoming on quickplay.

- On Ranked mode, Attackers and Defenders play both roles. If one team controls both objectives and the other controls only one, that first team wins. If both teams control both objectives, they redo the battle on both sides with the time left, twice if it is possible. If both teams finally succeed in taking both objectives but run out of time, it is a draw.

Assault maps are thus asymmetrical in several regards, please refer to the image below for visual aid (blue is Attack spawn and green is Defence spawn):

- Objective A is closer to Attackers' spawn, and objective B is closer to Defenders' spawn. In case of death of a teammate, the closer the spawn, the quicker said teammate will be able to go back on the battlefield.
- There are usually two main chokepoints (first and third), one a few meters before objective A and another a few meters before objective B. This gives advantage to Defenders, who usually take position on high grounds in front of the chokepoints.
- There are four wide spaces with several high ground positions. Wide spaces give more opportunities to Attackers by offering them access to high position points, fleeing space, covers and health packs.



Throughout the four years of Overwatch existence, Assault maps have benefited from a lot of updates and adjustments, because they are the maps that are the most despised by players, for several reasons:

- It is the map mode that gets most draws⁸.
- It often turns out as a long and tiring match in six rounds. Players are more inclined to quit the game in those cases.
- When one Defender dies on objective A, the defending team is certain to lose the objective (spawn too far). When one Attacker dies on objective B, the team has to backtrack quickly and regroup, or else they will be snow-balled⁹.

⁸ There are even nicknames, like Drawskaya or Drawnubis.

⁹ Snowballed: team members die one after another repetitively because of team desynchronization.

A lot of what troubles the player on Assault has to do with the scoring system and timers proposed for each battle. Those are things I cannot impact on as a level designer, which is why I won't speak about it in the next part.

2. PARIS BLOCKMESH AND ANALYSIS

Paris is the latest map created by Overwatch¹⁰ and it is an Assault Map, which is convenient. I went through it with Brigitte, a character that allows me to play her from a third person point of view. That way, I could count the number of steps she did over surfaces, translating it into 1 Brigitte step = 1 meter. I made a top-down plan of Paris map with that metric (afterwards realizing there was one on the Internet already), you can find it on Annexe 1. It gave me the basis to start reproducing that map on Unreal Engine, in order to study both the software and the organization of Paris in a 3D perspective. You can find on Annexe 2 the screened results of the map's blockmesh I did on Unreal. That rebuilding really helped me and allowed me to see several important things to analyse.

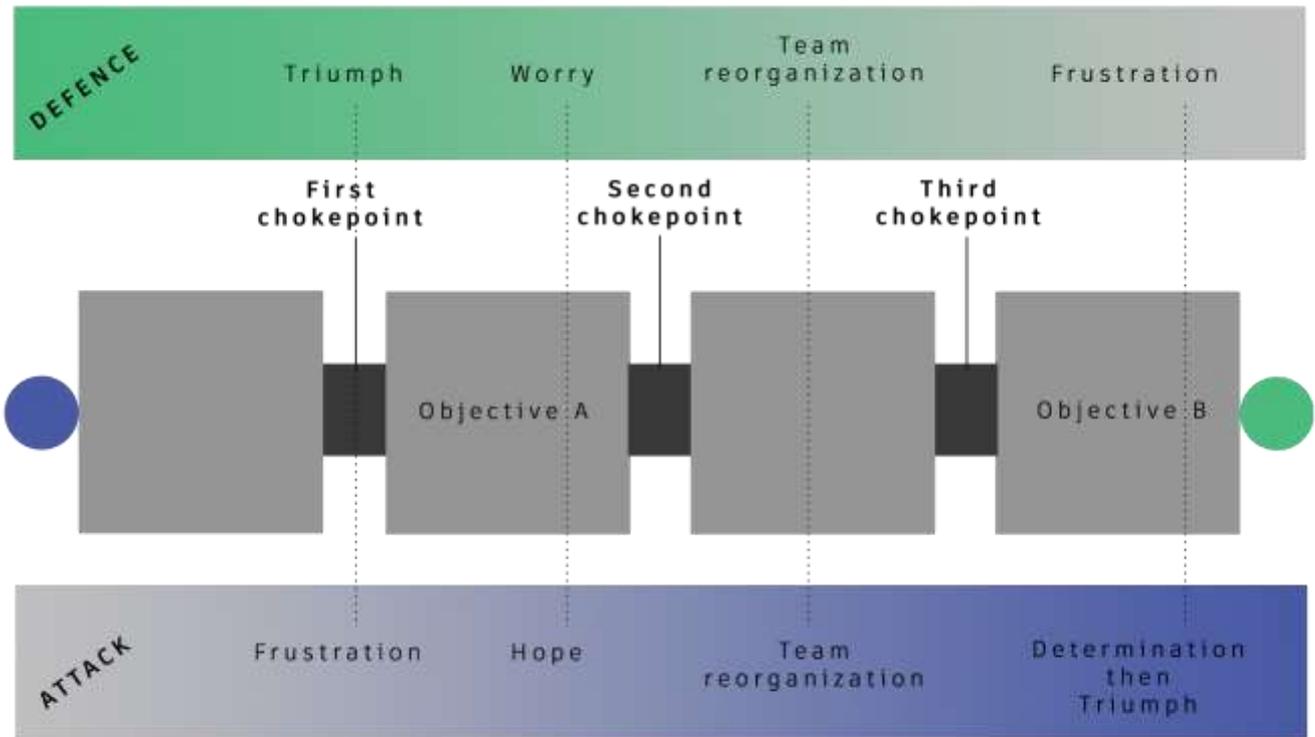
I also found an interesting analyse of Paris by Alphacast¹¹, a streamer on Overwatch since its start, also speaker for the Overwatch League matches. In his opinion, Paris's developers made several choices that differ from previous Assault maps:

- The first chokepoint barely has side routes and is thus very hard to go through, which gives advantage to Defence.
- The distance between Attacker's spawn and objective A is one of the longest. The distance between objective A and objective B is the longest by far.
- Defence spawn and objective B are separated more thoroughly by several walls and corners, making it longer to come back on objective B to defend.
- On objective B, Attackers have access to many side routes, giving them an advantage over Defence which has to spread out.

From Alphacast's analysis and my own experience of the map, it seemed to me that Paris's developers tried to balance the Assault map system by deepening the asymmetrical principle. Defence is the strongest at first on the chokepoint of objective A, but then Attack has the upper hand thanks to all the side routes before objective B. In term of players' emotional response, to me it is like on next page's image.

¹⁰ Patch Update 1.33.0.1 on February the 19th (2019)

¹¹ "[Analyse de la nouvelle map Overwatch](#)" by Alphacast (Fr)



Several details helped me confirm that analysis, details I also reported in the asset list destined to the graphic artist of the map:

- **SPACES:** In true Assault fashion, there are choked points and open spaces in the exact positions shown by my sketch above. First choked point is especially tight indeed, and unlike other Assault maps, it doesn't have a side route. Also, as Christopher Totten¹² said, « Look up but also look down ». Paris has height variations all over the map and several high position points can be accessed by most heroes, but some are especially designed for agile heroes like snipers.
- **OBJECTS AFFORDANCE:** Everything that has holes in it is destructible, like small stone and iron barriers. Some blocking objects are placed in front of chokepoints, on sides of the main road or on objectives. The main pathway is obvious, a sinuous road in the street and a red carpet in the manor.
- **ARTISTIC DIRECTION:** Paris is focused on Art Deco and art galleries, with specific details on each section of the map. Said map can be cut into three parts: Cabaret and restaurants, then the shopping street with the police station (objective A), and finally the Manor with its garden (objective B). On objective A, the landscape is enormous, with the Seine and the Eiffel Tower in view, but the river clearly informs that you cannot cross it.
- **HEALTHPACKS:** The map has few big Health packs (three) but many small ones (ten). The disposition is as follow: one big pack on one side of main road means three small packs or more on the other side. Those sides are reversed about three times on the map.

¹² [“An architectural approach to level design” GDC \(extract\) by Christopher W. Totten](#)

I am overall not convinced by the emotional experience proposed by Paris because I think it pushes into too extreme emotions. Frustration and anger are especially intense when you trample all over the same spot (first chokepoint) for 3 long minutes. In the end, you do not have many ways to go through the map, and people end up always using the same heroes for Paris, because it is the only way to pass through. I think that chokepoint decision does a disservice to the first pillar, Heroes First. Therefore, I tried to find another way to balance Assault maps when I conceived Vishkar.

III. Creation of Vishkar

1. ARTISTIC AND NARRATIVE INSPIRATIONS

A video by Tim Simpson about blockmesh and level design¹³ gave me an organization about how to begin conceiving Vishkar map in a strictly graphic and technical point of view. First, find references of things that inspire you, then create a moodboard of it and finally create a very basic set of modular assets to start Blockmesh (I didn't follow that last part because I wanted to experiment without having to model myself for once).

I thus began to look through which hero and which country to explore. Symmetra is one those characters in Overwatch that do not have a very developed background, allowing me to improvise a lot. You can find everything about her on Blizzard¹⁴, what I found useful were those pieces of info:

- She is a light-bending architect, she can shape cities with hard light technologies.
- Vishkar is a corporation from southern India that housed displaced countries' population (because of outside wars and conflicts). They made an academy for prodigies like Symmetra.
- Vishkar's real motive is not clear but they seem suspicious, using Symmetra for clandestine missions to influence other countries' development.
- Vishkar and Symmetra's motto is about control and order.

This gave me all I needed about plot, technologies and futuristic elements. But I knew I would need old in the new to keep players in a sort of surreal and oddly familiar feeling. Fortunately, I wasn't working alone on this, and I had seen a bit of Indian architecture on a previous project.

I then discovered on my research a doctrine called "Vastu Shastra"¹⁵ an Indian science of construction and architecture code. It basically means that having a satisfying home environment is part of everyone's pursuit in life, and this is based on true Hindu beliefs. I studied the "Mandala" site planning principle of Vastu Shastra and discovered several

¹³ ["3 tips to blockmesh LD" by Tim Simpson](#)

¹⁴ <https://playoverwatch.com/fr-fr/heroes/symmetra/>

¹⁵ [Indian Architecture and Vastu Shastra](#)

artists that would use that principle for modern architecture. In short, rooms are placed according to climate and spiritual beliefs, on a square grid of three by three squares.

In term of artistic and technical direction, Melusine provided me with other references that you can find in the bibliography section. She also arranged great moodboards, you can find them on Annexe 3. They helped us find the right colours, textures and shapes we needed to signify Vishkar Foundation, as well as the types of classical buildings we liked the most and wanted to integrate in Vishkar.

I finally focused on the narrative side of the map and built a start base from Jolie Menzel conference we talked about earlier. Here it is:

- **WHY:** Control, order, power, saviour syndrome mixed with spiritual beliefs, shaping children with controlled education.
- **WHO:** All heroes, focus on Symmetra, who is the link to the map.
- **WHERE:** India, Utopaea city, on top of a mountain and a waterfall, giving view over the city with its hard-light buildings and carefully controlled environment. The map would be called Vishkar Foundation, an impressive structure in a U-form (fitting Vastu Shastra Mandala), seen by all, in the likes of Fondation Vuitton in Paris. As it is a proof of top-notch technologies, it won't contain many utilities robots, everything being embedded in the walls discreetly. The map would contain an open-access Temple in the name of Vishkar and an Academy building with restricted access. WATER will be omnipresent.
- **WHAT:** Overwatch discovered that Vishkar and Talon¹⁶ were working together. They sent a team in the Foundation to take innocent children out of Vishkar's grasp and to collect data about both organizations. There are as many gameplays possible as there are heroes' formation on field.
- **WHEN:** Early morning, dawn is still pink and orange, the Foundation is closed to the public because it is too early, and the children are either sleeping or training. Cadence of events is based on Assault mode: two objectives to take to win.
 - o Incentives: Attack: objectives and time limits – Defence: threat.
 - o Attack and Defence Deterrents: Tension because opponents' ambush could come from anywhere, and Change in gameplay, when the other team changes heroes to counter.
- **HOW:** It could be interesting to have heroes and especially Symmetra use special voice lines and triggered dialogue about Vishkar and the mission to accomplish here, whichever side they are on (high player agency while giving variable certainty of delivery). When on Defence, the idea is to push the players to want to control the situation, while on Attack it is to make them feel the need to create as much mayhem as possible.

With all this determined, I could in the end begin the building of the map, both narratively and mechanically.

¹⁶ Overwatch bad guys.

2. NARRATIVE DESIGN AND PRELIMINARY MAPS

You can find the first hand-drawn map for Vishkar foundation on Annexe 4 to 6. I made a first shot with the general structure built over Vastu Shastra (Annexe 4), then constituted a referenced map for Melusine to better understand my vision (Annexe 5), and finally focused on grounds heights (Annexe 6). I made a central water conduct that goes from the beginning to the end of the map, showing clearly the main path to both teams. I will know describe my vision in detail from Attack spawn to Defence spawn:

GAMEPLAY	NARRATIVE
<p>Attack Spawn is in an air-train that's stationed next to a large dock, it is the only access to Vishkar Foundation. There are two exit doors and three pathways to the next room.</p>	<p>The train stands on the brim of a very large waterfall, giving out a sense of power and control. Players can see through windows the sunrise over Utopaea city and forests. It is peaceful.</p>
<p>Stairs on the dock lead to the Duties section. Duties are in a wide room with a central fountain that acts as cover and high-vantage point. There is space to circulate around it. Windows and straight lines of sight allow Attack's anticipation.</p>	<p>In Overwatch, there is a lot of political and terrorist tension. Duties are mandatory in such an important place, with security checkpoints and detectors. There are watering canals on each side of the fountain, forcing visitors to wash their feet before truly entering, as a sign of respect and tidiness. There are windows on both sides, with panorama on left side.</p>
<p>The first chokepoint is right after Duties, when entering the Courtyard section. I took some advices offered by David Shaver and Robert Yang¹⁷ to suggest another way of dealing with that chokepoint: indeed it is a tight space, but I created a terrace¹⁸ that acts as a valve for Attack on the left side of it, giving access to the Courtyard by another route. That terrace dropping below its access, once you enter it you cannot backtrack, except if you are an agile hero. I expect Attack teams to go through it as one, or to send flankers on that side. It seems to me that it offers more strategies to heroes and yet gives the upper hand to Defence.</p>	<p>The doors giving into the Duties and the Courtyard are massive and imposing, to remind the visitors of where they are and what to expect. *</p>
<p>The inner Courtyard is made with heights in mind. There are arches and beams all around, a satisfying playground for agile heroes. Columns do act as protection</p>	<p>The Courtyard is an important part of the house in Vastu Shastra, it is a welcoming place that gives the tone for the rest of the house. If the Courtyard</p>

¹⁷ ["LD Blockmesh and lighting tips" GDC](#)

¹⁸ That terrace is not visible on the plan because I added it while blockmeshing, like several other pieces.

<p>nonetheless for all players, as does the central fountain. The Courtyard divides in three parts from the fountain, one main path in the middle and two sides that go up and down. The right side gives way to after Objective A.</p>	<p>has a lot of high positions, it may encourage the players to watch up and down carefully as well on the rest of the map, provoking a slight feeling of paranoia that is always welcomed in a fight.</p>
<p>Getting out of the Courtyard, you reach Objective A, the Temple. There are a lot of high positions here, a shrine on the other side of water, easily accessible by all, stepwells¹⁹ on the wall of the mountain, and the top of the Temple itself. Objective A is semi-protected though, which forces Defence to play short range heroes as well.</p>	<p>After the Courtyard and the first chokepoint, the Temple opens up the space, in both size and eyesight, thanks to the landscape on the left. There are elements of Indian classical architecture that are used to magnify the place and give a feeling of majesty and peacefulness. The temple is the place where visitors come to pray and mentally regenerate, under the watchful eye of Vishkar corp.</p>
<p>Attack's second spawn should be near the Temple when objective A is taken, but seeing the length of Vishkar, I decided to put it later in the map. After Temple, there is a short interlude with the Toilets on the left. There is a choke point here if Defence is still standing. You can access the next room from two ways, main road or toilets' side-route. Flankers can start side-tracking while tanks push forward.</p>	<p>There is a lot of care given to the body in Indian culture, and it concerns all aspects of it. The toilets are open to the public and play a transition role on the map. First objective is taken, Attackers are more determined and also more cohesive after winning that first fight.</p>
<p>As mentioned earlier, second Attack spawn is forward and not backward to objective A, in Vishkar's Academy Reception room. With two exits, it is positioned in the direction of objective B. While Toilets were enclosed, Reception is wide, with a full well in a corner, falling in it is death assured. Reception offers a top pathway besides main road and several places to hide.</p>	<p>Reception is starker than Temple, because it is the beginning of Vishkar's Academy. It serves an administration purpose, with desks and waiting chairs and benches, tea and coffee in another corner. If the player were to stop and contemplate the place, he would feel like being in a big bank reception. There are also androids around, accomplishing administrative tasks.</p>
<p>The exit of Reception, leading to the Zen Garden, is another chokepoint, but has a side-route that can be used by all heroes. Defence can anticipate if Attack will come out of it or from main road thanks to the line of sight through reception.</p>	<p>The Zen Garden is the last spot before objective B. It is very stripped, to remind students they come with nothing so they can grow on a stable basis. It gets an inspiration from stepwells and is the only part of the map that has full greenery.</p>

¹⁹ Stepwells are found in a Baoli, an ancient Hindu well, very deep. [More info](#)

<p>Entering the Academy grounds, you will find Objective B right in front of you. On both sides of it and on top level of the building, hallways with open windows give protection and line of sight over the objective.</p> <p>Paris last objective is in my opinion very interesting, because it offers several strategies thanks to multiple access. It influenced a lot my objective B, giving the possibility to use space with new gameplay and all kinds of heroes.</p>	<p>Objective B is a large pond covering almost all space in the open courtyard. I wanted the players to end up their fight in water, even if it only reaches ankle level. In front of the three imposing main doors and the pond, a stately double stair leads to protection and side stairs upstairs, and to an inner green wall and the Defence spawn downstairs.</p>
<p>Defence spawn has a few walls between it and objective B, but it is accessible from upstairs and downstairs. It is situated in the pupils' dorm.</p> <p>It is important to know that both teams cannot see each other despite not being very far, so that teams' compositions cannot be anticipated.</p>	<p>The pupils' dorm has a beautiful view over forests and Utopaea. But it also leads to the Academy training grounds, that the players can see through windows. In an ideal world, putting children training behind those windows would be a good way to liven the map up.</p>

After thinking through all spaces and shapes in this 2D format, I started blockmeshing on Unity with Probuilder and Progrid. You can find screenshots of each part of the map in Annexe 7.

Melusine and I used Unity Collab to collaborate over assets integrations and placements. Her experimental work being about modular design, we thought together about ways to create a lot of environment art by producing as few 3D assets as possible. This being another subject of experimentation, I won't talk about it furthermore here. You can see an excerpt of it on the cover of this paper though, and we will probably post a demo video of it on the Internet when we are done.

Conclusion

I learned a lot through that map making, and I also had a lot of fun. Creating lore with already defined and working mechanics is enthralling, especially when said mechanics make sense in the game's universe.

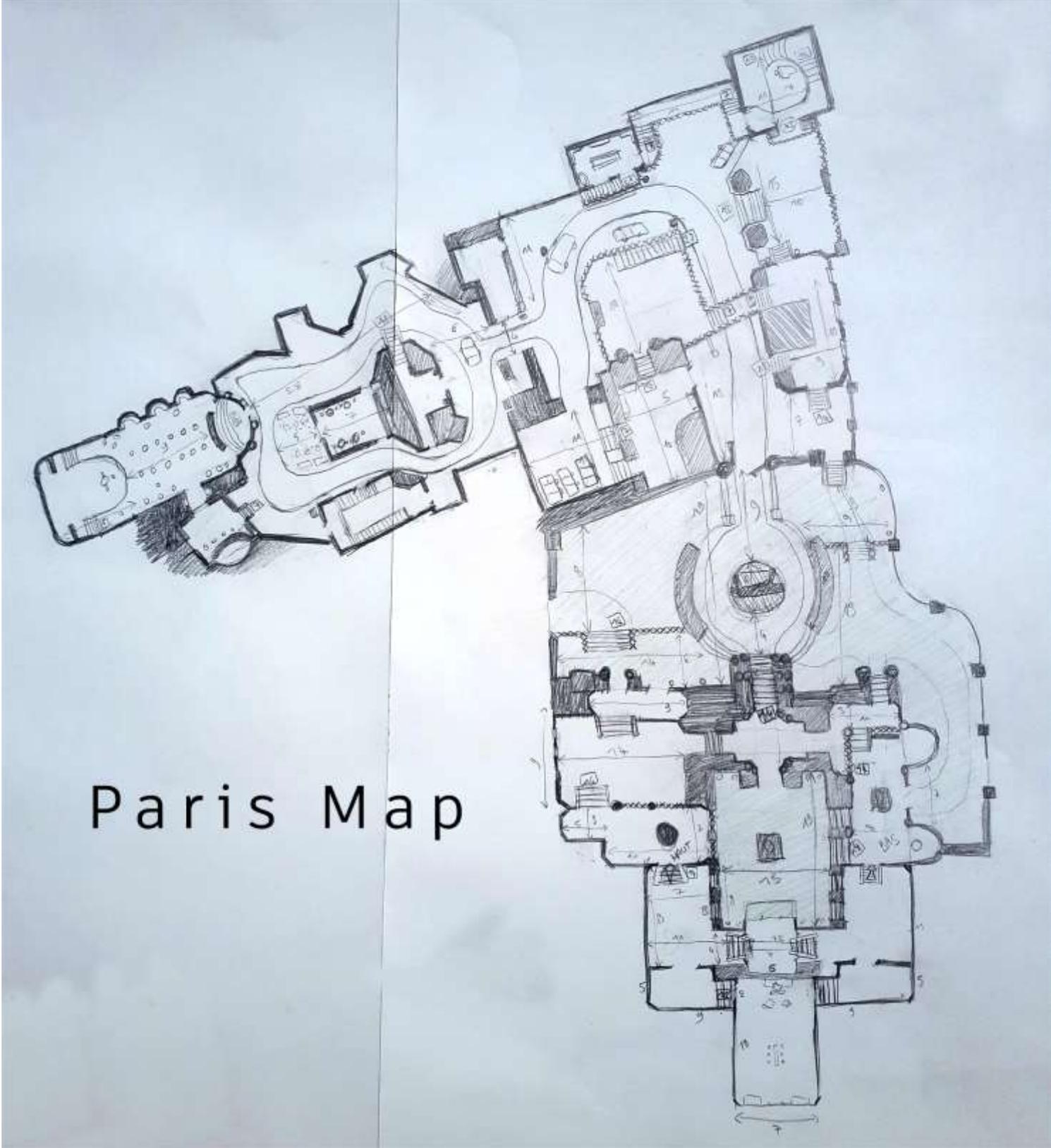
As a reminder, here was my big question: **How do you create a narrative and asymmetrical map in Overwatch to offer an extensive experience to all players?**

There is no practical answer to that, because when narration is concerned, player experience becomes something very subjective, hard to quantify and categorize, for there are as many game experiences as there are players.

Although one personal conclusion to that map creation is one concept: the more the player can innovate and create their own strategies in a defined game structure, the better the game experience will be. Giving them a team cooperation game is one step towards that, as is a multitude of heroes with different gameplay styles, and maps that act as playgrounds and sandboxes without being obtrusive.

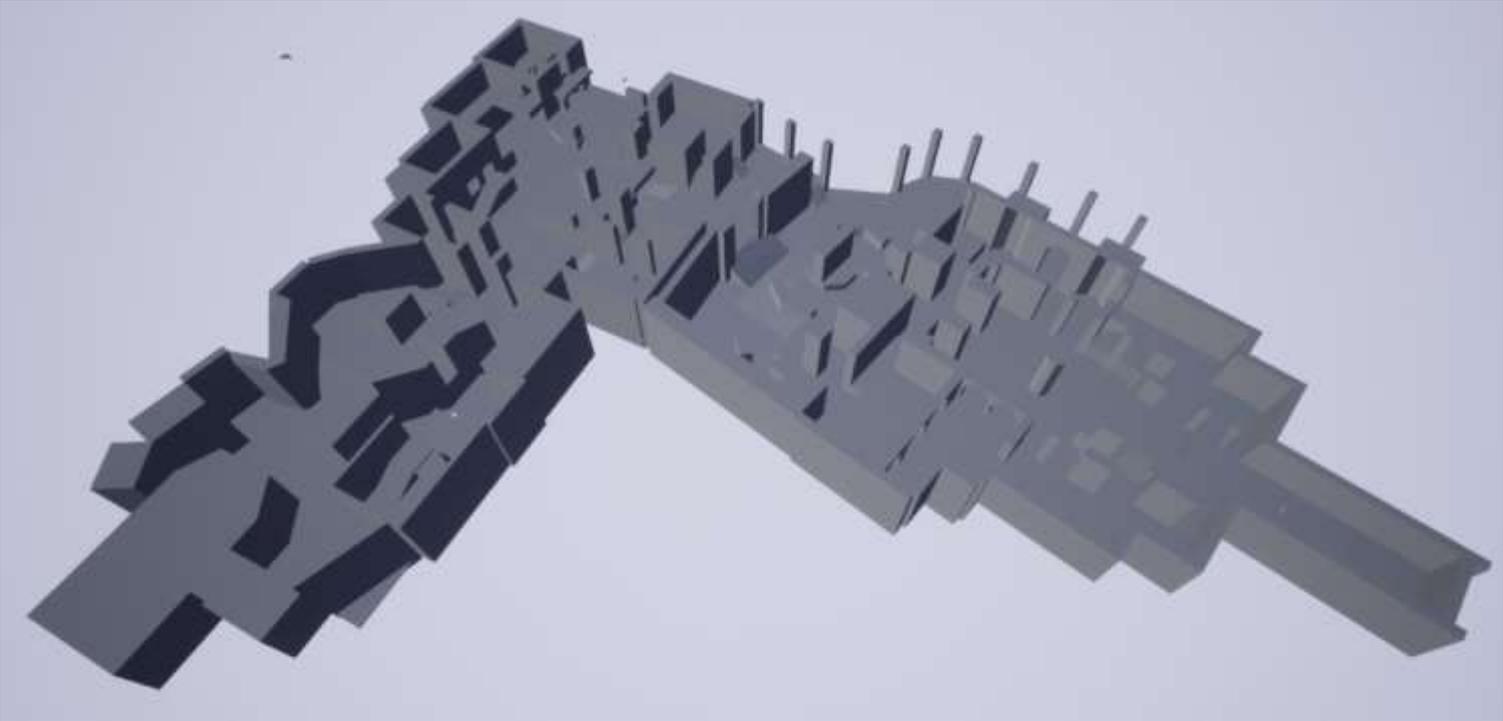
The fact is, though, that Overwatch maps require a lot of testing, over and over, because it is a game of repetitions and trials, and also because despite my creativity, I cannot visualize many players' experiences and reactions. This is my only regret on this work, but I have hope that one day, I will get to go further on testing in a professional environment.

Annexe 1 – Paris Map (pen and paper)



Paris Map

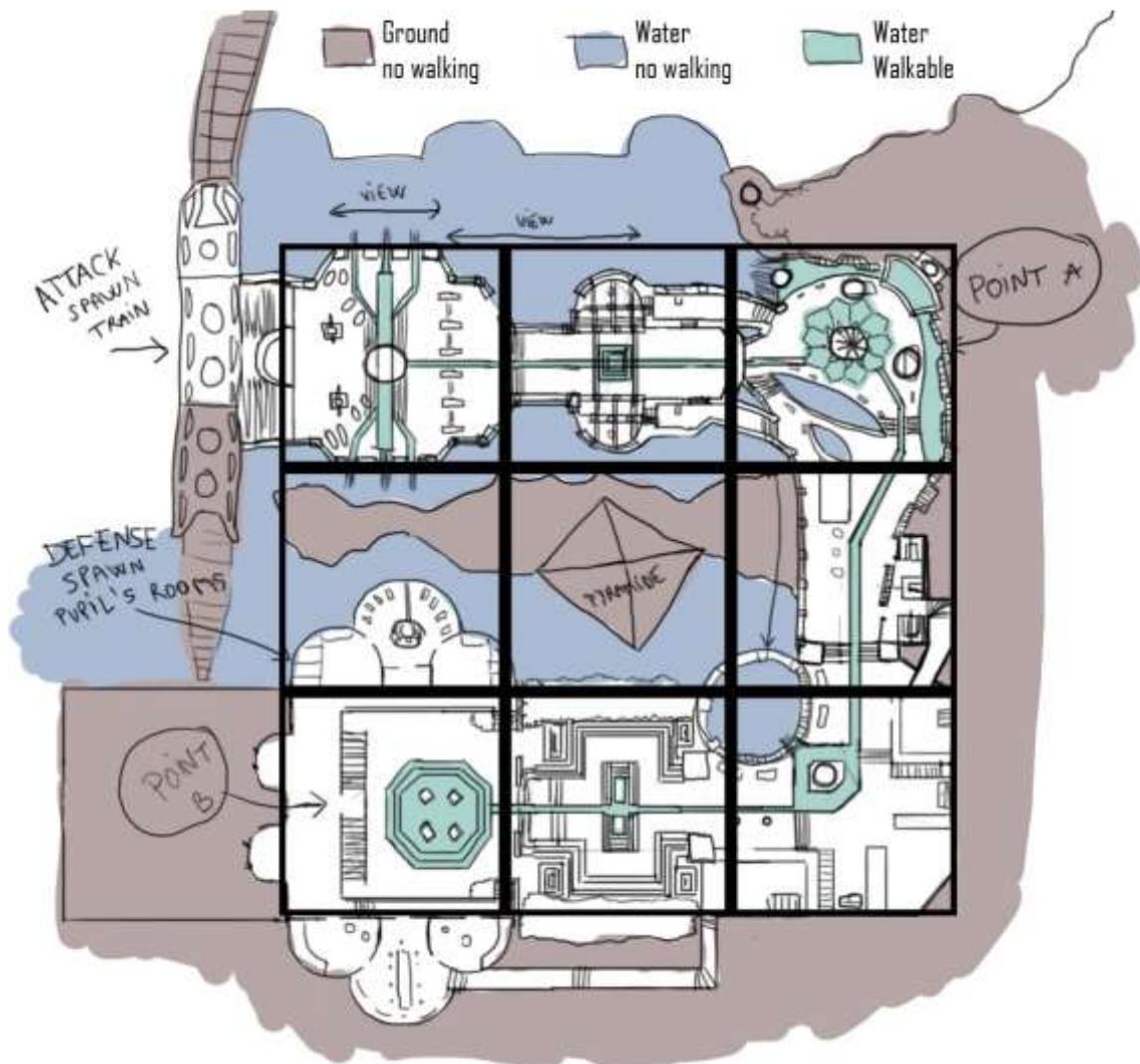
Annexe 2 – Paris Blockmesh (Unreal Engine)



Annexe 3 – Melusine's Moodboards (Photoshop)



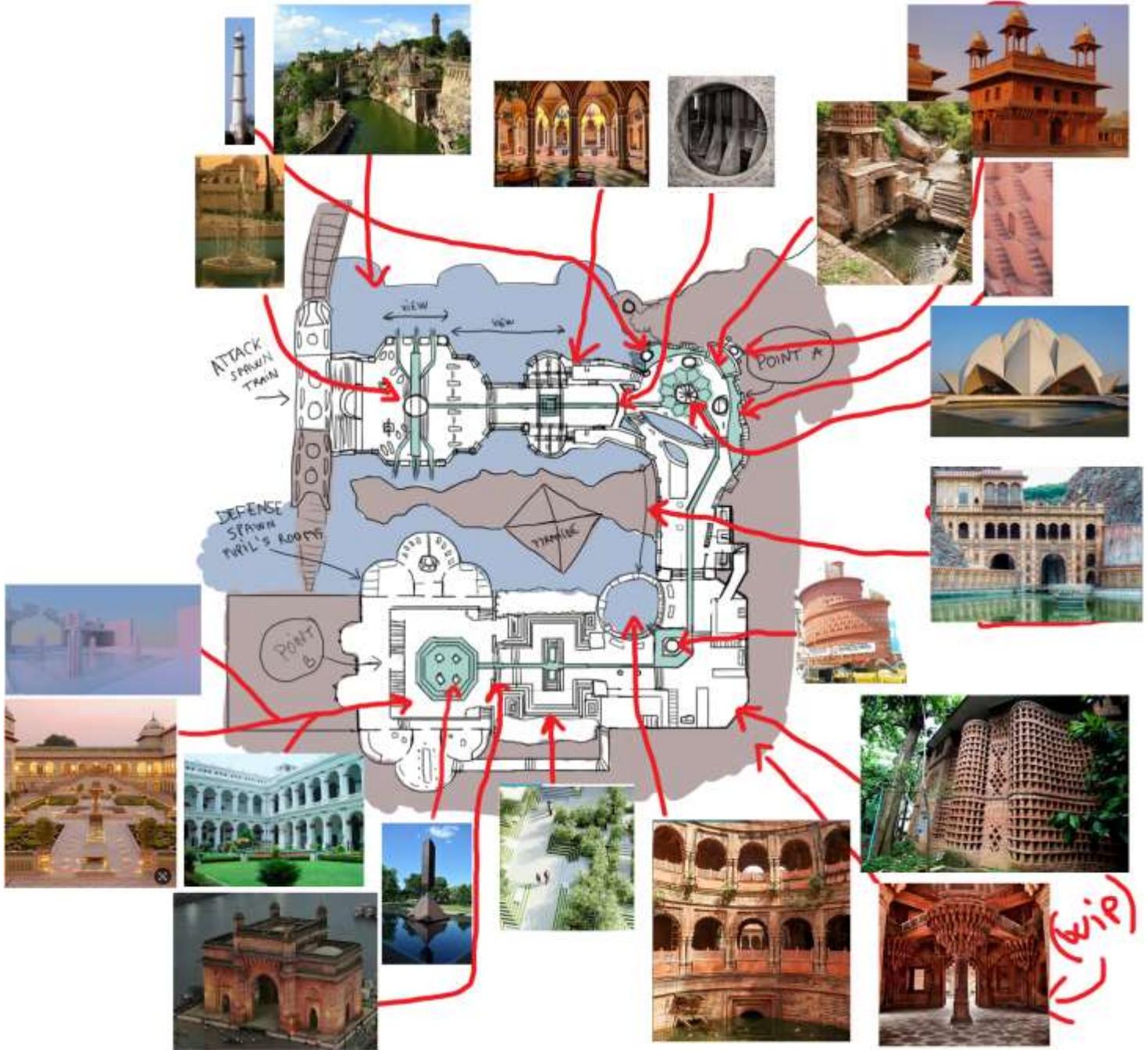
Annexe 4 – Vishkar Map with Vastu Shastra (Photoshop)



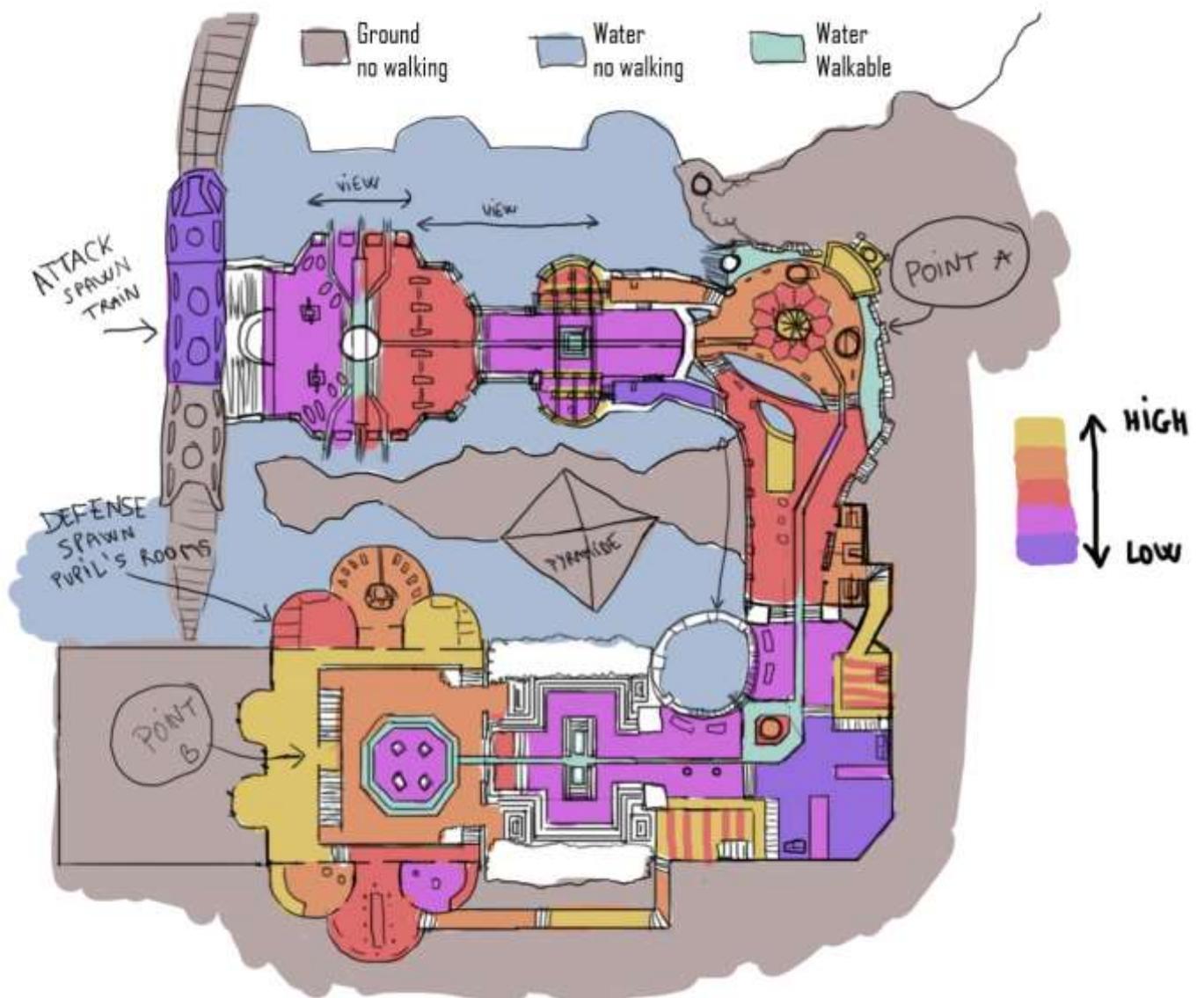
(Image below taken from <https://happho.com/vastu-shastra-plan-your-house/>)

<p>North West Air/ Vaayu Dev (Lord of Air)</p> <p>Field Staff Visitors Store Room Pantry/ Utilities</p>	<p>North Kuber (Lord of Money)</p> <p>Reception Visitors Junior Staff</p>	<p>North East Shiva (Lord of Universe)</p> <p>Junior Staff Reception Visitors Pooja Cashier</p>
<p>West Varun (Lord of Rain/Water)</p> <p>Directors Managers Senior Staff</p>	<p>Center Brahma Dev (Lord of Creation)</p> <p>Lounge No Fixtures No obstacles</p>	<p>East Indra Dev (Lord of Devas)</p> <p>Junior Staff Computer Room Pantry/ Utilities</p>
<p>South West Narasya Dev (Lord of Devils)</p> <p>Master Chamber No Pantry No Toilet</p>	<p>South Yam Dev (Lord of Death)</p> <p>Directors Managers Senior Staff</p>	<p>South East Agni Dev (Lord of Fire)</p> <p>Reception Visitors Accounts Dept Computer Room Pantry/ Utilities</p>

Annexe 5 – Vishkar Map References (Photoshop)



Annexe 6 – Vishkar Map Levels (Photoshop)

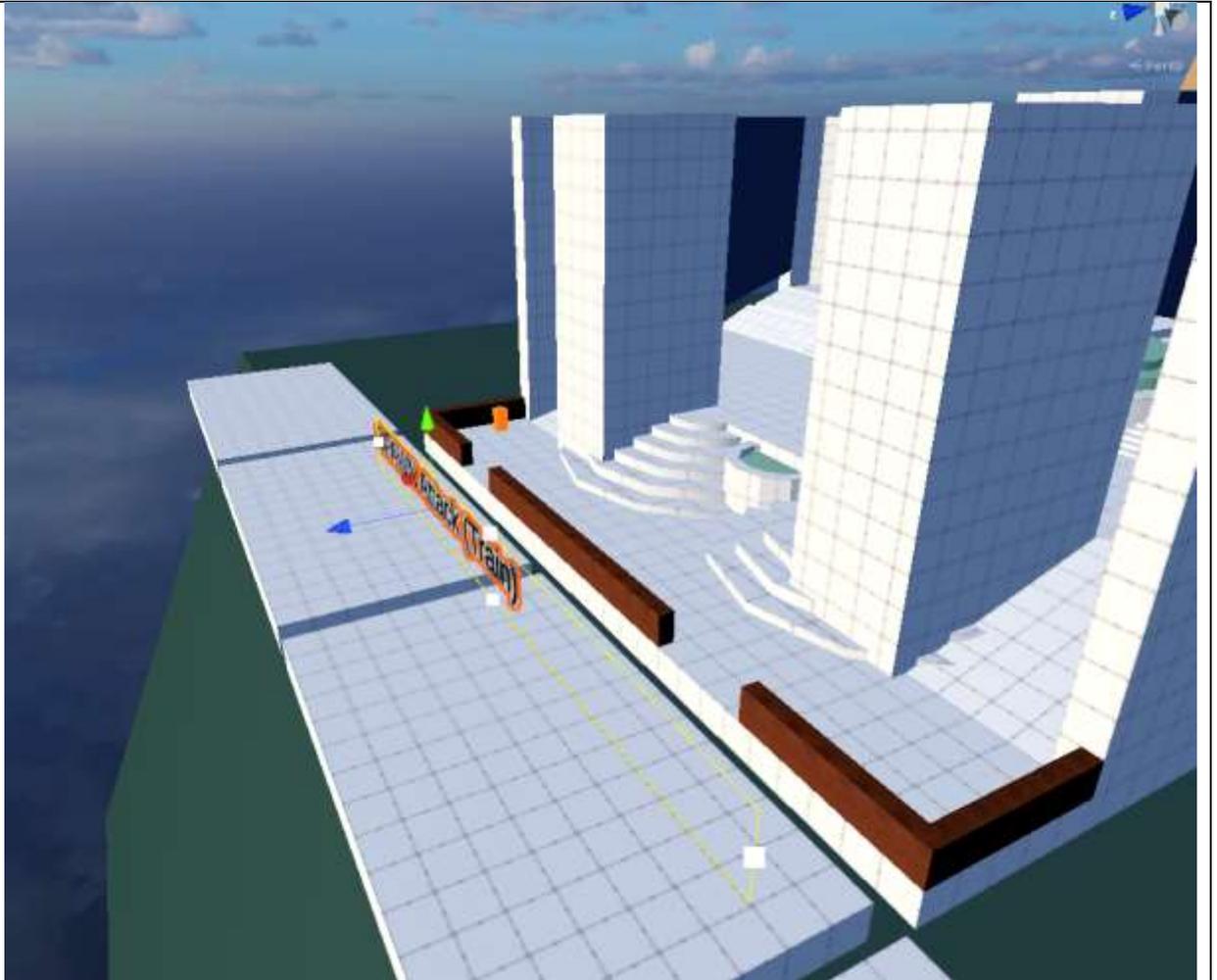


Annexe 7 – Vishkar Map Blockmesh detailed (Unity)

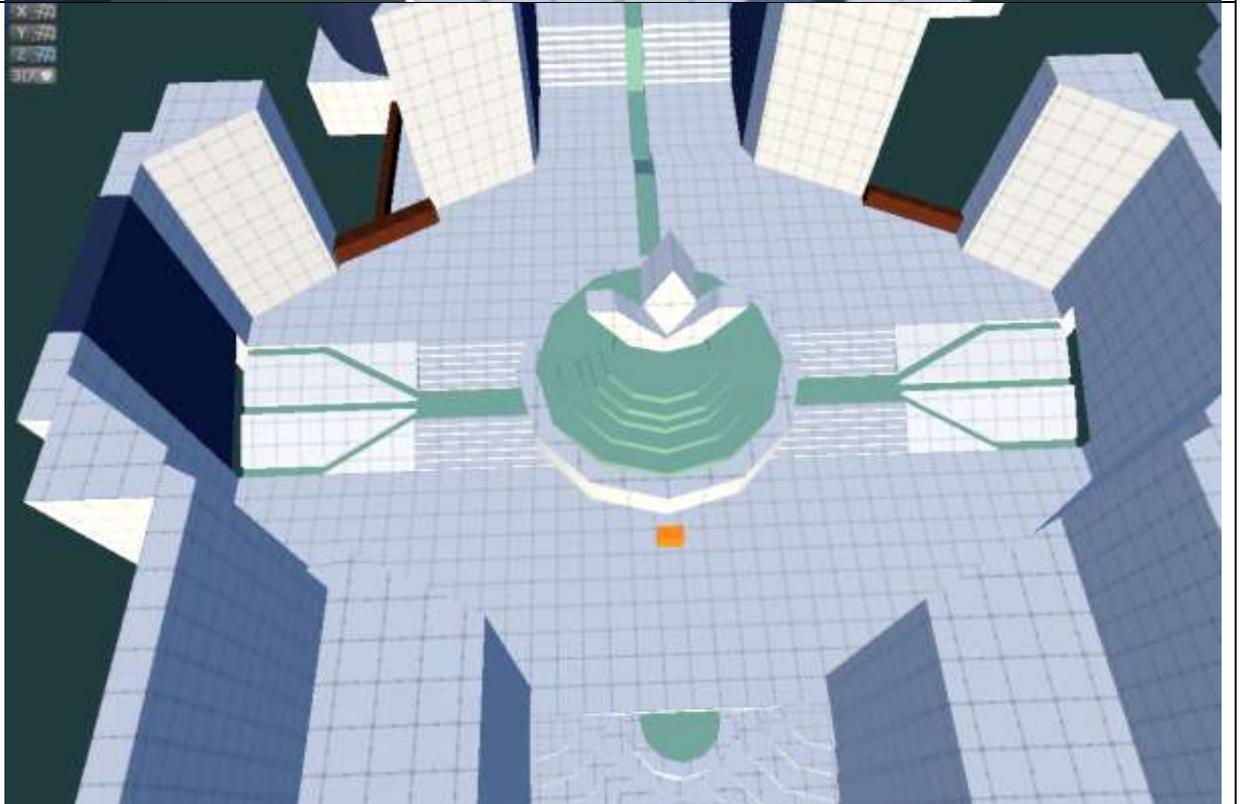
[Build available for testing here](#)

Global plan	
Legend	<ul style="list-style-type: none"> WATER - walkable LAKE - not walkable BUSHES - not a platform MOUNTAIN - not walkable SEE-THROUGH BARRIER - breakable Big MediPack Small MediPack

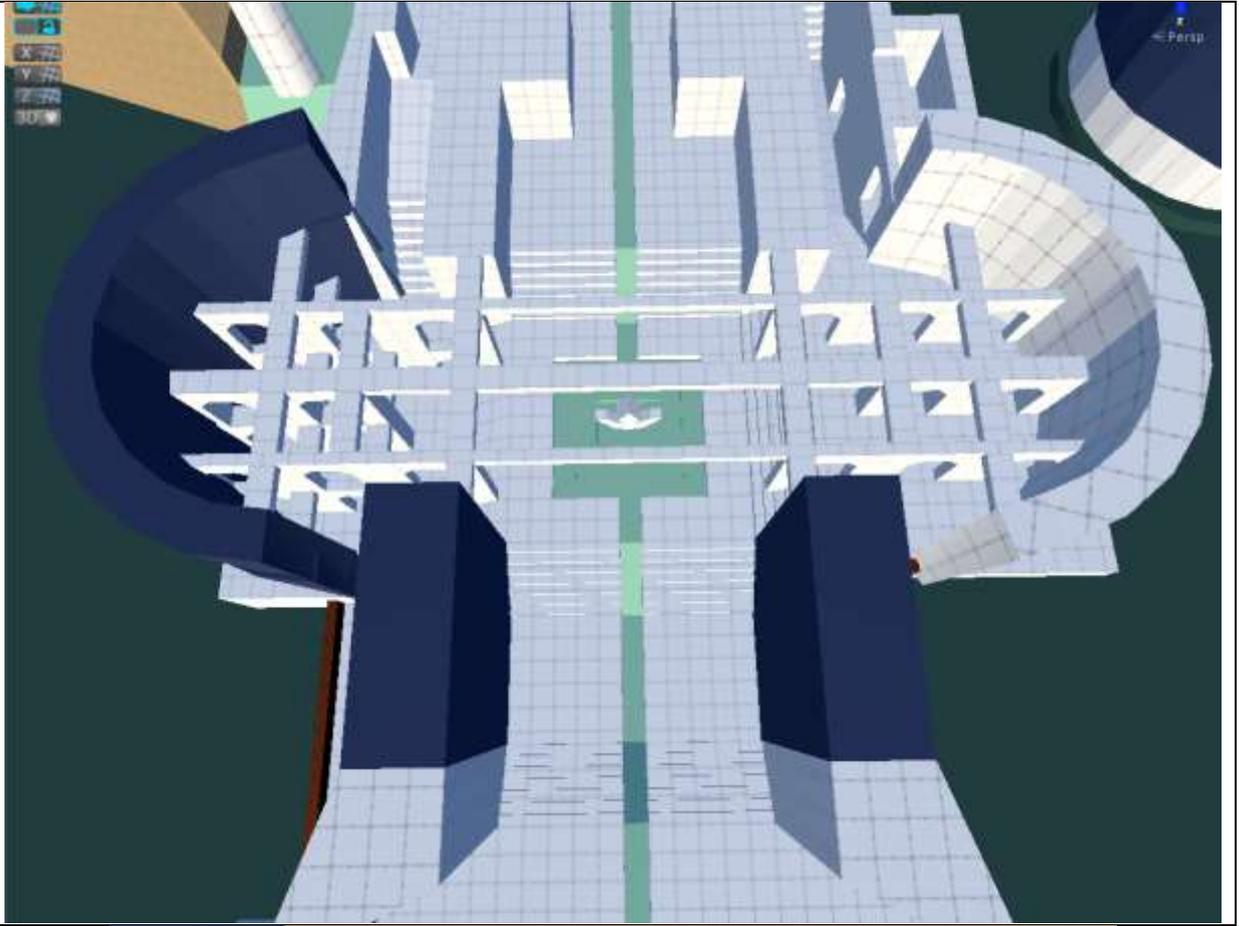
Dock



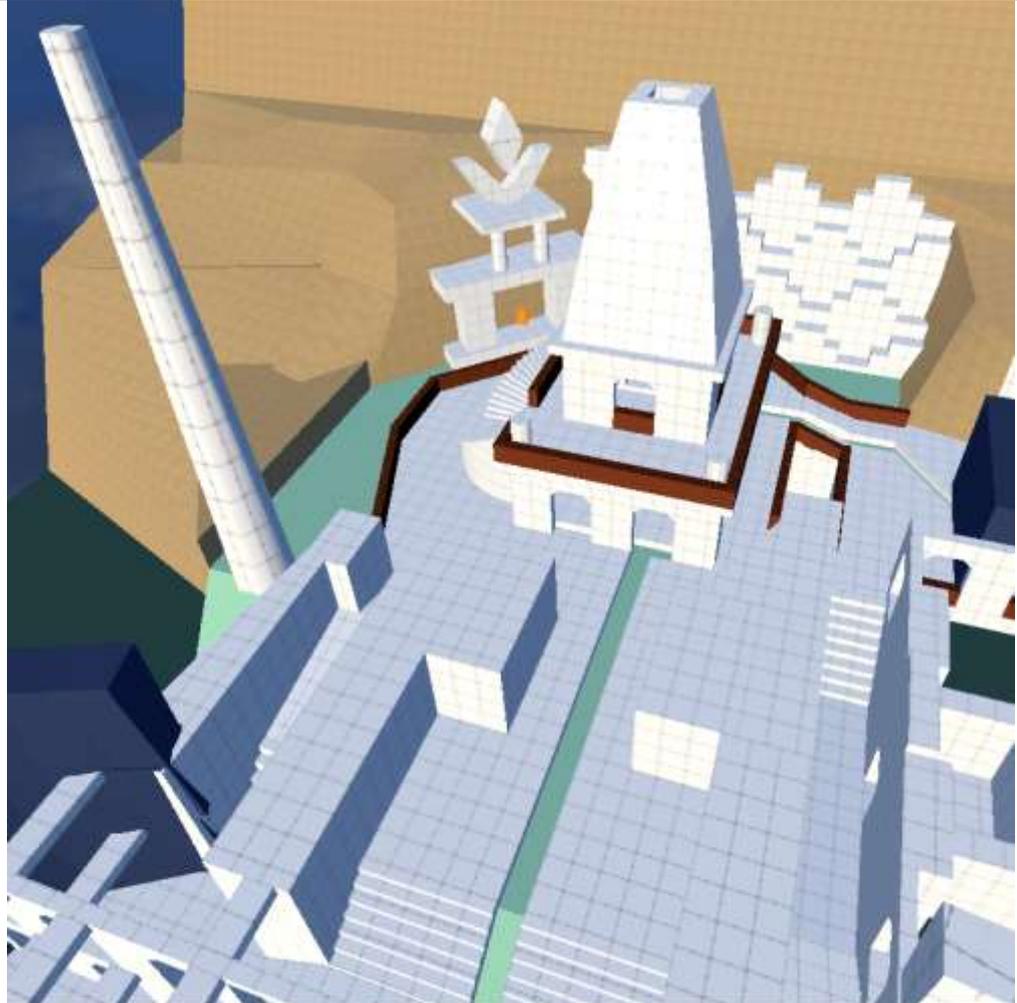
Duties



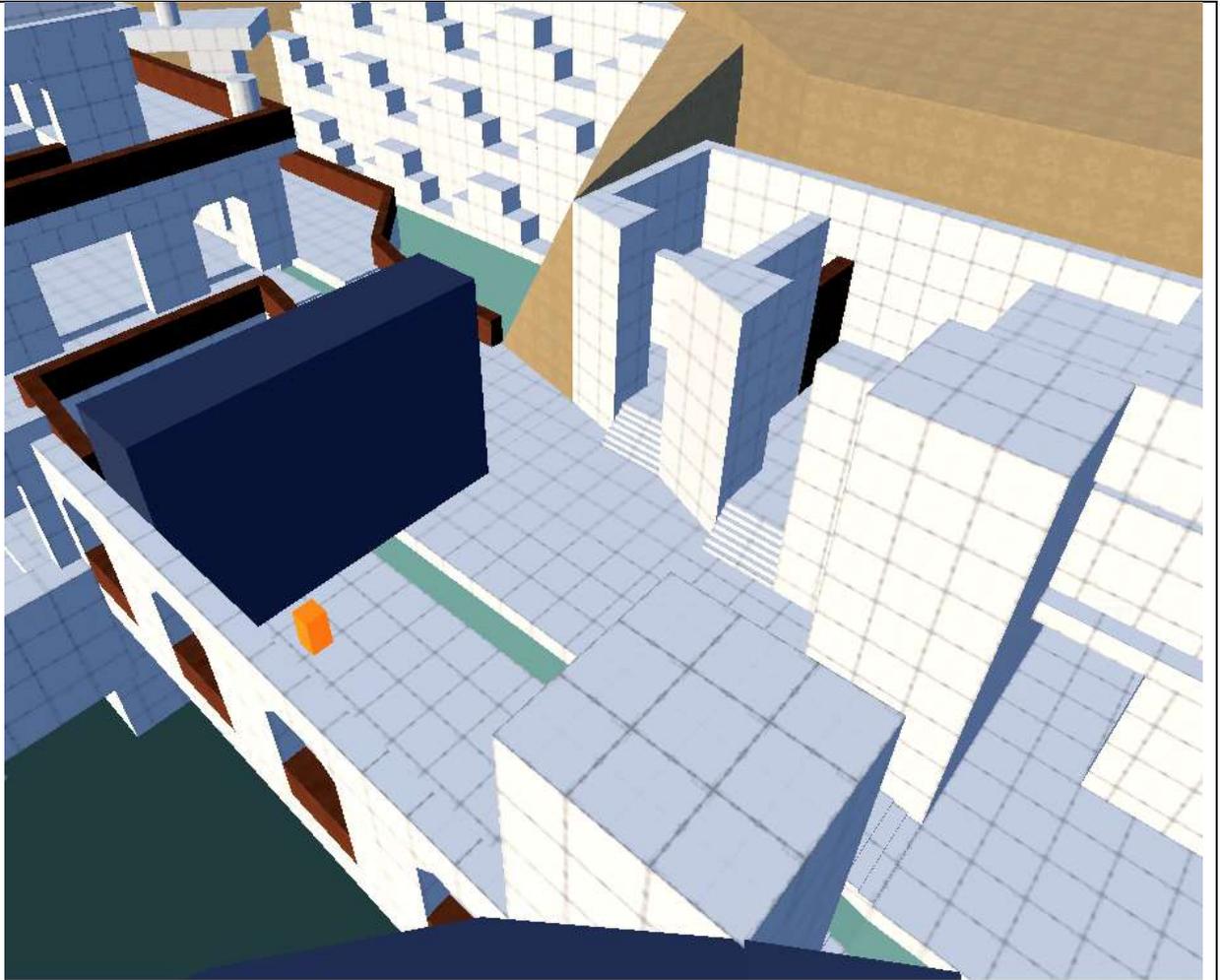
Courtyard



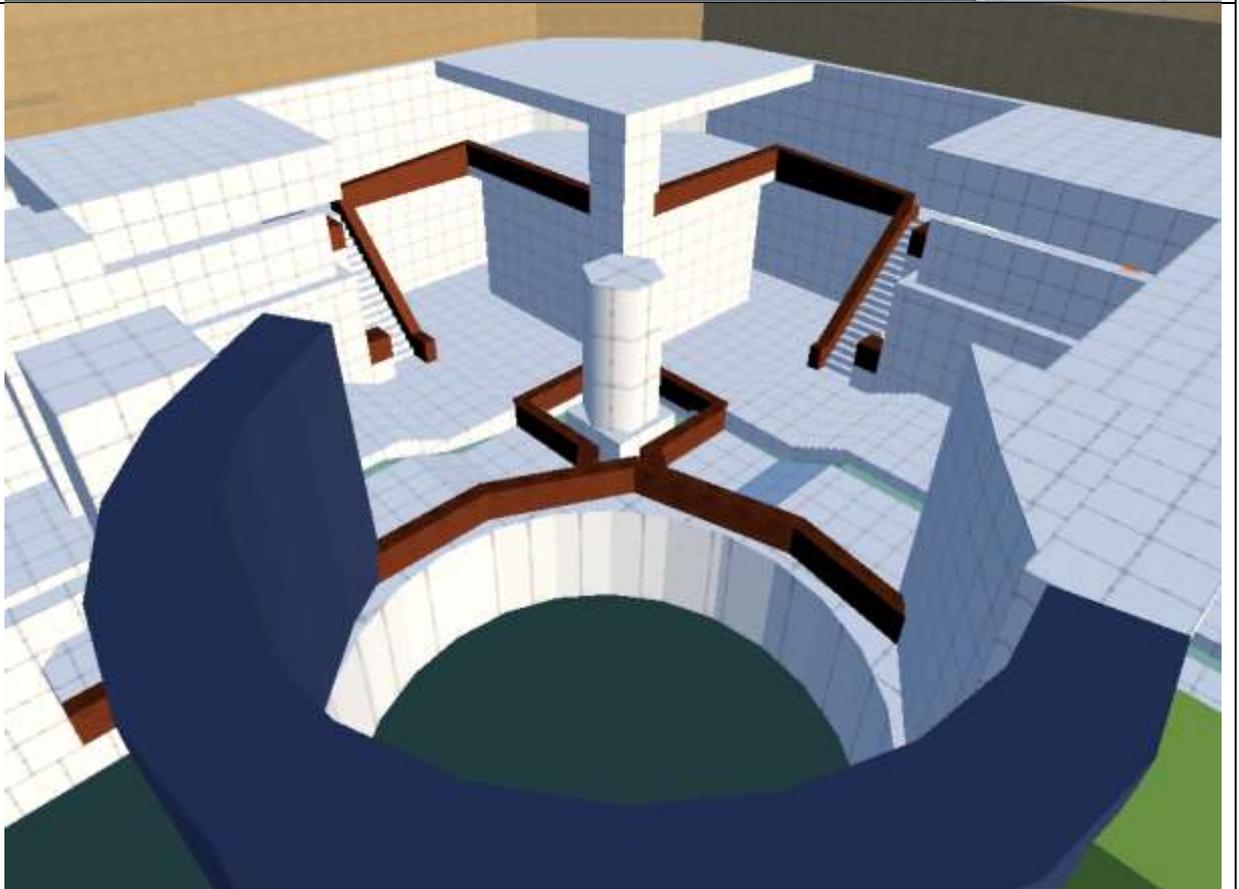
Temple and obj. A



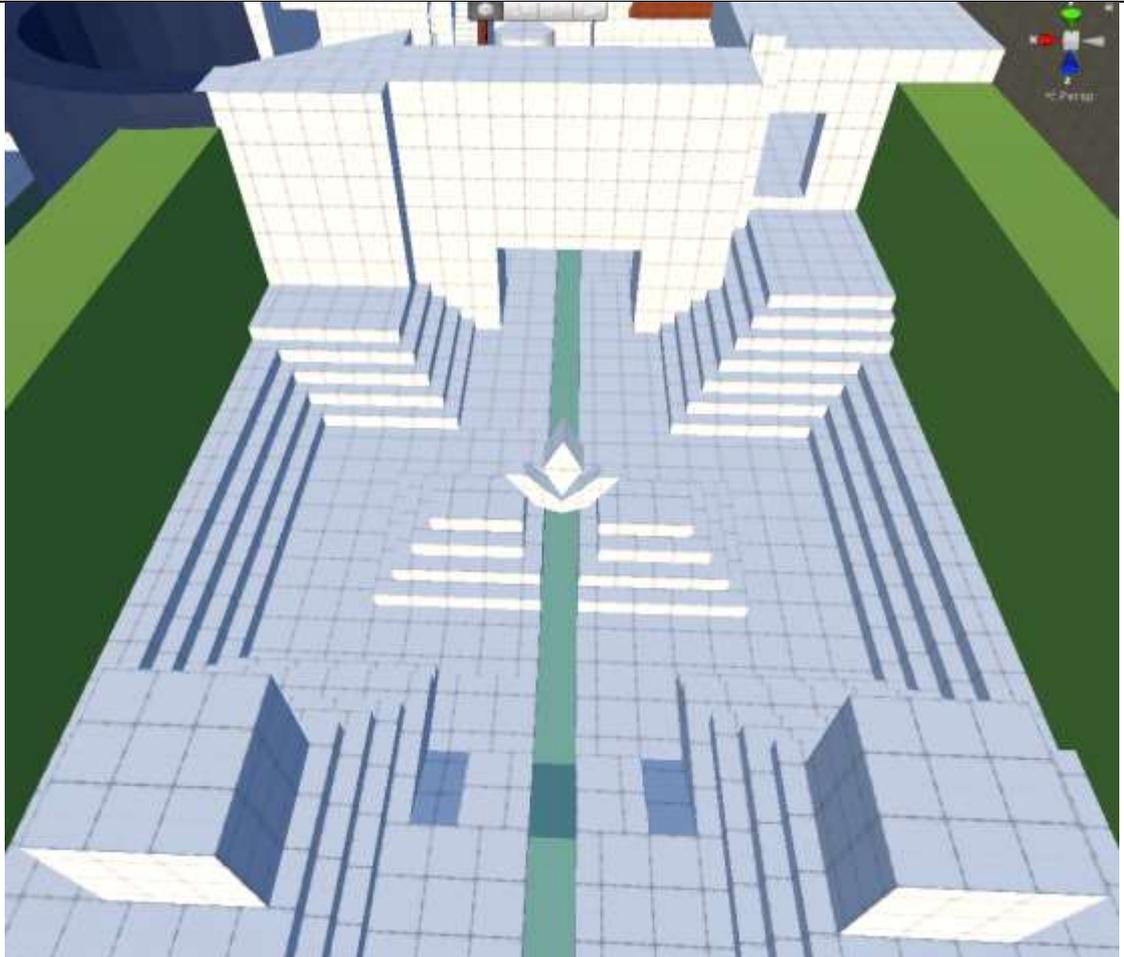
Toilets



Reception



Zen garden



Academy and obj. B



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