UNIVERSITÀ DEGLI STUDI DI MILANO

PON9
Playlab fOr inNovation in Games

Game and level design 2018 – 2019
Level design document

Howl's Moving Castle: another door
Level 6: Cal

Team7
indie game developers

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Table of contents

1 - Change log

User	Date	Description
Maione	14/10/2018	Created this document
Maione	18/10/2018	Added the characters list
Maione	21/10/2018	Added image to characters
Dettori, Iervolino, Maione	22/10/2018	Wrote the overview story
Maione	23/10/2018	Added deadlines
Dettori, Iervolino	24/10/2018	Wrote the game story
Dettori, Iervolino	25/10/2018	Wrote the characters biography
Iervolino	25/10/2018	Story revision
Dettori, Iervolino	03/11/2018	Summary of acts
Iervolino	04/11/2018	High concepts, Settings, Synopsis and topics
Dettori, Iervolino, Maione	05/11/2018	Designed and Added world maps
Maione	06/11/2018	Updated diagrams and maps
Maione	07/11/2018	Updated characters layout
Iervolino	07/11/2018	Description and backstory of the characters, goals outline
Dettori	07/11/2018	World diagrams, added Ben
Dettori, Iervolino	08/11/2018	Validation
Maione	08/11/2018	General formatting
Iervolino	09/11/2018	Howl photo and corrections
Iervolino	09/11/2018	Photos of orphan child and corrections of scripts
Maione	16/11/2018	Added image for setting
Maione	17/11/2018	Replaced all the embedded images with the referenced one
Dettori	17/11/2018	Modified story flowchart
Iervolino	17/11/2018	Added Main story
Maione	17/11/2018	Created Master document
Maione	19/11/2018	Tropes
Dettori, Iervolino	19/11/2018	Goal outline, added images of settings
Iervolino	19/11/2018	Revision
Iervolino	19/11/2018	Correction to the scripts suggested by prof. Mariani
Dettori, Iervolino	21/11/2018	Work on the Goal outlines, story flowchart and think about what happens in the level.
Maione	22/11/2018	Added Sophie's circumplex
Dettori	22/11/2018	Added reference images of enemies and his sketches
Maione	25/11/2018	Added copyrights to the images
Iervolino	26/11/2018	Wrote the whole script of level 6
Iervolino	26/11/2018	Drew the tavern, the sewer monster, and the throne room
Maione	27/11/2018	General formatting
Dettori, Iervolino, Maione	27/11/2018	Revision
Dettori	06/12/2018	Completed the map of the city
Iervolino	07/12/2018	Complete the map of the areas of the city
Maione	09/12/2018	Digitization of maps
Dettori, Iervolino	10/12/2018	Corrections and extensions
Maione	11/12/2018	General formatting
Dettori	11/12/2018	Added hand-drawn maps (the whole city, tavern, prison, barrack) and

		descriptions
Iervolino	11/12/2018	Added hand-drawn maps (sewers tower castle) and descriptions, some revisions to scripts
Iervolino	13/12/2018	Reworking of all contents after the milestone 2 correction
Maione	14/12/2018	Digitization of maps
Dettori	15/12/2018	Added: descriptions of the remaining maps, descriptions of common rewards and common rewards' images
Maione	16/12/2018	Digitization of maps
Maione	17/12/2018	Added concept chapter
Dettori	22/12/2018	Added the whole design of Alchemist's guild and the whole design of the Alchemist's puzzle
Dettori	26/12/2018	Added description of the stealth mission in the barracks, the map of the prisons with possible paths and correction of the NO dial of the city
Dettori	27/12/2018	Added the mechanics of rewards for exploration
Maione	28/12/2018	Puzzle ampoules
Dettori	30/12/2018	Added the FSM for Cal's soldiers groups and the exploration rewards distribution system in the city
Dettori	01/01/2019	Modified the city map and added possible paths of the player within it
Dettori	04/01/2019	Added FSM for NPC friendly and FSM for Ben. Also added lighting elements in the map descriptions.
Maione	05/01/2019	Correction on maps
Maione	06/01/2019	Audio design
Dettori	08/01/2019	Wrote potion's recipe for the Alchemist's puzzle, added the positions of the various rewards
Iervolino	09/01/2019	Fights calibration and level statistics
Maione	09/01/2019	General formatting and review
Dettori, Iervolino	10/01/2019	Designed the whole sewers' puzzle
Iervolino	10/01/2019	Ancient puzzles, skill and reward calibration with statistics, full revision, adaptations to changes
Dettori, Iervolino, Maione	24/01/2019	Correction, revision and general formatting.

2 - Concept

Game analysis

You will lead the team of Sophie, Calcifer, Markl, Heen and the Witch of the Waste to save the kingdom from a terrible fate. The game is an adventure with GDR mechanics, is extremely focused on the main story. Even the side quest usually play a role in the evolution of the script, that's why the game can be ended partially in 14 hours, or with the best ending in 23 hours circa.

- Main story: 14h
- Side-quest and extra: 9h

Gameplay mechanics

The game is single-player, and its fights are based on the first edition of Dungeon&Dragons and inspired by FF tactics dynamics.

During the exploration the player commands Sophie who is followed by the rest of the team (when able to reach her).

During the battle the player can choose the moves of every member of the team.

The player is for the most of the time on the rails of the script. However, as happens in the level 6, he can walk freely inside the level's map, where he can choose between different paths and mission. Only few back-tracks are allowed in a level after its end, due to plot reasons.

Saving is allowed only near specific fireplace where Calcifer leaves the armor and the team rest for a while.

Enemies have an arc of view and a scripted movement or are just triggered as a trap. Once they see the player they became hostile and try to reach him.

Calibration

The game is thought with three difficulties but the statistics in this document show only the average one. The player should be able to end the game losing just in the most difficult battles. The game over leads usually to a short re-play of the last part of the game with a new tactic; keeping under control the frustration of the player.

Target audience

The target audience for this project is college students with experience playing games.

3 - High Concepts

After the previous adventure Howl, Sophie, Calcifer, Markl and the Witch of the Waste live a happy time. Their idyll is interrupted by Suliman informing Howl of the oncoming, from the overseas, of some monstrous animals covered with a strange green mud and ruled as marionettes by spirits similar to those evoked by Howl in moments of despair. Howl understands that he is personally involved in the spread of this new evil: years before he clashed with his old classmate Layton, and did the mistake of imprisoning him with the spirits of despair that he accidentally evoked. During his imprisonment Layton learned how to control them and, once freed by chance, dominates the sentient minds by amplifying their own negative feelings, looking for revenge. Without confessing his involvement to Suliman and his friends, Howl leaves for the other continent but disappears because this time Layton gets the better on him. At the beginning of the game our team (Sophie and her friends), alarmed by the magician's disappearance, try to follow his tracks beyond the door that he created to reach the other continent. Soon they find themselves fleeing Layton's henchmen, who follow them back in the moving castle leading to its destruction. They must therefore ask Suliman for help, who prepares them for the adventure and orders Heen, in the form of a warrior, to watch over them. Over the ocean, they soon found out that the mud it's everywhere but that can be removed after some hours in the hot water. With the help of the King Beuron ousted by Layton, they retrace the journey of Howl, who now wanders coursed through Cal as an unrecognizable child without memory (following Ben, the most trusted soldier of Beuron). The team comes to believe that Howl is dead, but finally they find him and restore his physical form bringing him back to battle, while Layton rallies his forces to attack their kingdom and defeat Suliman too, completing his revenge. They have the possibility to rid Cal of Layton's monsters, collaborating with the resistance during the game. Gathering together after growing up in difficulties, Sophie and Howl manage to defeat Layton back to Kingsbury.

4 - Main Story

When Howl arrived in Ingary he began studying magic at Saliman's, where he met the wizard Layton, who was her devout apprentice. Howl was a fast learner, and was conquering Suliman's benevolence. Due to his pact with Calcifer he suddenly reached Layton's abilities, and Layton decided to investigate moved by envy. He learned about the existence of the demon and tried to steal it tricking Howl: Layton decided to make him fall in love by transforming himself in a charming woman, knowing Howl's weakness. However once he entered the moving castle Calcifer recognized his intentions, and he was quickly defeated by the demon whose power he had underestimated. At the time, Howl despaired so much for the sincere infatuation that he evoked a myriad of spirits of desperation. Impulsive and vindictive as just an adolescent can be, he locked Layton in a small urn with all of them. Then he hid the urn in a distant land named Radme, hoping he would never have to talk to Suliman about it.

Recently Layton has been accidentally freed by some wizards apprentices, and spread the spirits (which he learned to control) throughout Radme, bewitching the diseased brain of king Beuron of Cal. In Ingary, Suliman is soon alerted by the appearance of Layton's monsters, and invites Howl to investigate. Howl refuses to collaborate with Suliman, then he goes in Cal on his own, hoping to defeat his opponent while keeping the consequences of his impulsiveness hidden. There he's able to free Beuron, who flees in a camp outside the city. Than, escorted by Beuron's most loyal guards, Howl proceeds through the swamps leading to Layton's castle, where Layton was already waiting for him. At the river they fight and Layton gets the better of him. He extracts from Howl a magical sphere that represents his experience and transforms him into a child, after that Layton lets him drown and takes the mental control of the guards that Beuron had flanked to Howl. Howl survives carried by the river current, and when he reaches Cal is saved by Ben, a sentinel left from Beuron in the capital to foment the resistance. Ben exchanges him for an orphan boy, in fact Howl has no memory.

Meanwhile our heroes, Sophie and her friends, ask Suliman what happened to Howl, alarmed by his disappearance. Suliman adds her faithful guard Heen to the team, and also gives to the Witch of the Waste a magic stick that allows her to walk easily. After rapidly refining their fighting skills, landed in the other continent, they proceed across the roaring hills of Radme. There they find out how the mud can be washed off with a long, hot bath. In fact they defeat a slime monster in mines by throwing it into a hot spring, and after hours it reemerges human again, as the old village chief. Then they reach the capital Cal, where they meet Ben, the head of a small resistance that tries to oppose Layton. Among the few survivors in the resistance's hiding place there is the little and unrecognized Howl (the Witch of the Waste notices that he has a strange symbol on his neck). Eager to know what happened to their friend they infiltrate in the castle of Cal to interrogate the guards that were with Howl when he was defeated by Layton. The soldiers tell them that Howl probably drowned, so Sophie and the others go desperate to Beuron's camp for help and advice. Beuron welcomes them and encourages them not to give up, explaining his plan to sneak into Layton's fortress. Suddenly Layton attacks the camp and the king is defeated. The team remains hidden during the final stage of the battle, but has the opportunity to listen to Layton boast: he reveals how he defeated Howl marking him on the neck, and how he now uses his beautiful experience as an ornament at the castle, he also says that wants to leave for Ingary, where he will defeat Suliman. The Witch of the Waste understands and reveals that the orphan child in the capital could be Howl because of the symbol on his neck. Than the team heartened proceeds to Layton's fortress, beyond the swamps, where they recover the Howl's experience. Returning to Cal they cross the city fighting alongside the resistance, looking for Ben and Howl. After saving them from a risky situation in the middle of the battle, they bring back Howl to his normal appearance. So, reunited, they leave for Ingary where they will defeat Layton, who is rapidly spreading terror.

5 - Synopsis

First act

This first act takes place in the following levels: 1, 2, 3.

While Sophie, Markl and the Land's Witch are in a fair in Portheaven, Howl is summoned by Suliman. When he comes back asks Calcifer to help him making a new color of the door (orange) leading to Radme, where he disappears. Few days after, since Howl hasn't come back yet, Sophie crosses the orange door and a bunch of monsters covered with green mud follow her inside the castle. The team is forced to run outside in the Waste with Calcifer, so the moving castle collapses on their enemies. In search for help and answers the group goes to Suliman, where they find out the provenience of the danger but not his nature. Suliman orders Heen to join the group to look after them, then provides them a ship to Radme.

Second act

This act takes place in the following levels: 4, 5, 6, 7, 8.

The group lands in Salt Marina and discovers that the king of Radme had been sick for a while and a deep sorrow had spread around the city, followed by the green mud. Than the king has been exiled from the near capital by a powerful magician just appeared from Ingary. In the capital they meet Ben, a sentinel of the exiled king followed by an orphan child with a mark on his neck rescued from a river. Ben explains that the King's mind was cheated by Layton, an evil magician, until Howl helped him to escape and build a resistance out of town. The team continues the research by interrogating some soldiers that Beuron sent with Howl after being rescued, and so they discover that their friend seems to be drowned in the fight with Layton. The group decides to reach for the king in the clearing. Layton arrives there soon with his troupes and conquer the place. Tells to Beuron, defeated, how he humbled Howl by stealing his manhood, putting a course on his neck and letting him drown in the river in a child-form. In the mean time the group is hidden nearby, so they start to believe that Howl survived as the coursed child that Ben brings with himself. Layton than kills the King and, thinking that Howl is dead, seals to Ingary to ultimate his revenge on Suliman.

Third act

The last act takes place in the following levels: 9, 10, 11, 12.

Overcome the swamps, where Layton's monstrosities have found festive ground to expand, the group sneaks into Layton's castle to steel the potion that will make Howl adult again. Then they cross the city of Cal during a great uprising to find the child they met earlier (that turned out to be Howl survived), saving him and Ben from a desperate situation. After that, reunited, they run to Ingary using the boots of the seven leagues to promptly save the situation, freeing Portheaven and planning to defeat Layton, who in the meantime besieges Kingsbury.

6 - Tropes

The ace (Howl) leaves to redeem a past error that allowed the magnificent bastard (Layton) to spread his evil phlebotinum (the mud of desperation) like a disease.

The ace is captured, and his friends, led by a brave and inexperienced Plucky girl (Sophie), embarks on a long journey to save the world, coming back to the initial status quo.

They are helped by the old teacher of the hero (Suliman), the ousted king of Radme (Beuron) and the Rebel Leader (Ben) that leads the revolution against the antagonist.
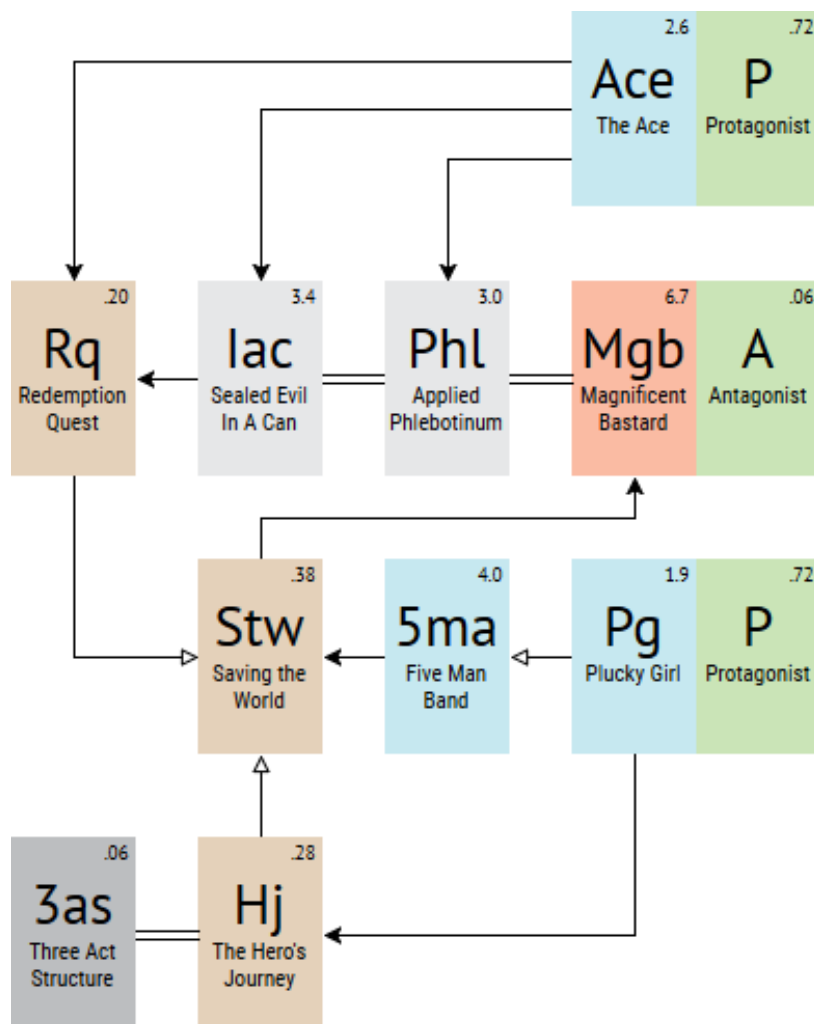
Picture 1: © 2014 James Harris, http://jamesharris.design/periodic

Themes

- Ambition – Layton can't accept his inferiority compared to Howl, in the eyes of his teacher.
- Revenge – Layton aim to defeat Suliman and Howl because of the hatred he matured.
- Isolation – Howl prefers to risk an impossible mission on his own rather than admitting his mistakes to his loved ones.
- Friendship – Friends risk everything to save a group member, whatever the cost.

7 - Goal outline

Goal outline per level

1. Become familiar with the game mechanics.
2. Cross the door through the new color looking for Howl.
3. Reach Suliman in the castle to get some information. Become familiar with the magical skills (through sub-quests).
4. In Salt Marina, the goal is to gather information about what happened to Howl.
5. Save a small village in the Roaring Hills from a terrible "monster".
6. In Cal, the capital of Radme, the team must look for "The Resistance", an organization that might knows where Howl is located or that could provide information about him.
7. Goes to the king for help. After that they have to get themselves safe from Layton's attack.
8. In the swamps, the goal is to overcome hordes of monsters and enigmas to reach the dark mountain.
9. In the Dark Mountain, they must find Howl's experience.
10. Back in Cal the team must find Howl to get him back to adulthood.
11. The team with Howl, who is not yet in full of force, must come back to Porthaven to fight against Layton.
12. After the defeat in Porthaven, they must defeat Layton in Kingsbury.

Side goal (whole world)

- Search for pieces of Heen lost by the Witch of the Waste.
- In Cal there are two sub-quests to help the resistance:
    1. The team must steal equipment in the armory of Cal and sabotage Layton's army.
    2. The team must open a passage in the eastern walls that allows to connect the resistance with the outside of the city.

Estimated time duration of the levels

These estimates represent the average duration of each level (hh:mm).

Level	Without side-quest	With side-quest
1	0:45	
2	1:00	1:45
3	1:00	1:45
4	1:00	1:45
5	1:15	2:15
6	1:45	2:45
7	1:15	2:00
8	1:00	1:45
9	1:15	2:15
10	1:30	2:30
11	1:15	2:00
12	1:00	1:30

8 - World map

The Waste

Kingsbury

Porthaven

Water
Sand
Mountain
Forest
Savanna
Grass land
Prairie
Swamp
Field
City
Port
Pathway

Ingary

Layton's castle

The Clearing

The Swamps

The Roaring Hills

Cal

Salt Marina
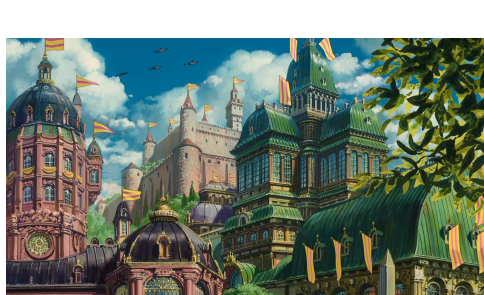
Radme

1 hexagon is 25 hectares

9 - Settings

All the visual reference are in the last chapter "Additional reference images".

Ingary

Ingary is in the same condition in which the novel left it, with the peace and meekness that distinguish it. It seems that spring never ends. The advice of Suliman made the Ingary's King mild and wise. The presence of Layton's monsters is limited to the waste, and instead there is a huge number of N.P.C. and social quest that accompanies the exploration of markets, ancient buildings, crowded taverns and city courses, in Kingsbury and Portheaven. The maritime city is full of fishermen, sailors and merchants, while the imperial city is more heterogeneous and it's possible to meet the most unlikely individuals.

Picture 2: Kingsbury

Picture 3: Folding Valley

Picture 4: Porthaven

Radme

Over the ocean we find the continent Radme. Starting from the small city of Salt Marina it is possible to go through the hills close to the coast in the mainland of the continent. Radme is more arid and poor than Ingary, it's full of geysers and hot water sources, it has vegetation and fauna that recall equatorial climates. Since the advent of Layton much of the earth has been covered by the slime, and fauna and vegetation have become increasingly rare. Its capital, Cal, was governed by an enlightened king, who, weakened by the mourning of his two sons, fell victim to Layton's power, which exploited his despair. Howl's intervention allows the king to reawake and organize the resistance in a clearing in the north, but in the city the slime of despairing spirits continues to spread, multiplying. In the innermost part of the continent, beyond the marshes, stands the highest mountain, where Layton had been exiled and where today his fortress is.

Picture 5: Salt Marina
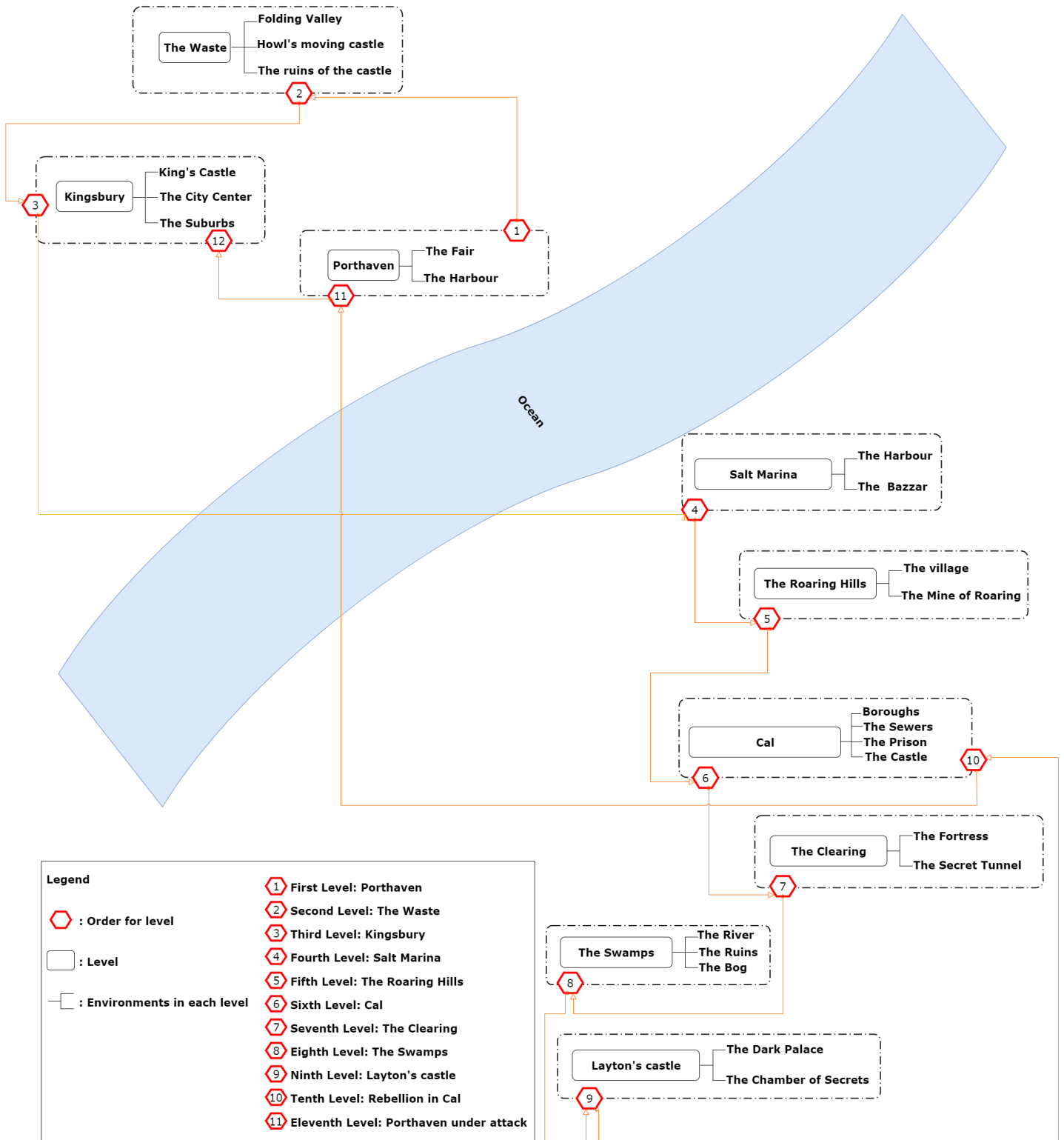

Picture 6: Cal

Picture 7: Roaring Hills

Ingary under attack

In the final stages of the game, when the protagonists have returned to Ingary to stop Layton's progression, the cities have become very dark, as the sky and the inhabitants. Only a few are saved from the slime, which drives mad crowds spreading like wildfire.

Picture 8: Wildfire in Ingary

10 - World diagram

The Waste
- Folding Valley
- Howl's moving castle
- The ruins of the castle

Kingsbury
- King's Castle
- The City Center
- The Suburbs

Porthaven
- The Fair
- The Harbour

Ocean

Salt Marina
- The Harbour
- The Bazzar

The Roaring Hills
- The village
- The Mine of Roaring

Cal
- Boroughs
- The Sewers
- The Prison
- The Castle

The Clearing
- The Fortress
- The Secret Tunnel

The Swamps
- The River
- The Ruins
- The Bog

Layton's castle
- The Dark Palace
- The Chamber of Secrets

Legend

⬡ : Order for level

▢ : Level

⊏ : Environments in each level

1 First Level: Porthaven
2 Second Level: The Waste
3 Third Level: Kingsbury
4 Fourth Level: Salt Marina
5 Fifth Level: The Roaring Hills
6 Sixth Level: Cal
7 Seventh Level: The Clearing
8 Eighth Level: The Swamps
9 Ninth Level: Layton's castle
10 Tenth Level: Rebellion in Cal
11 Eleventh Level: Porthaven under attack
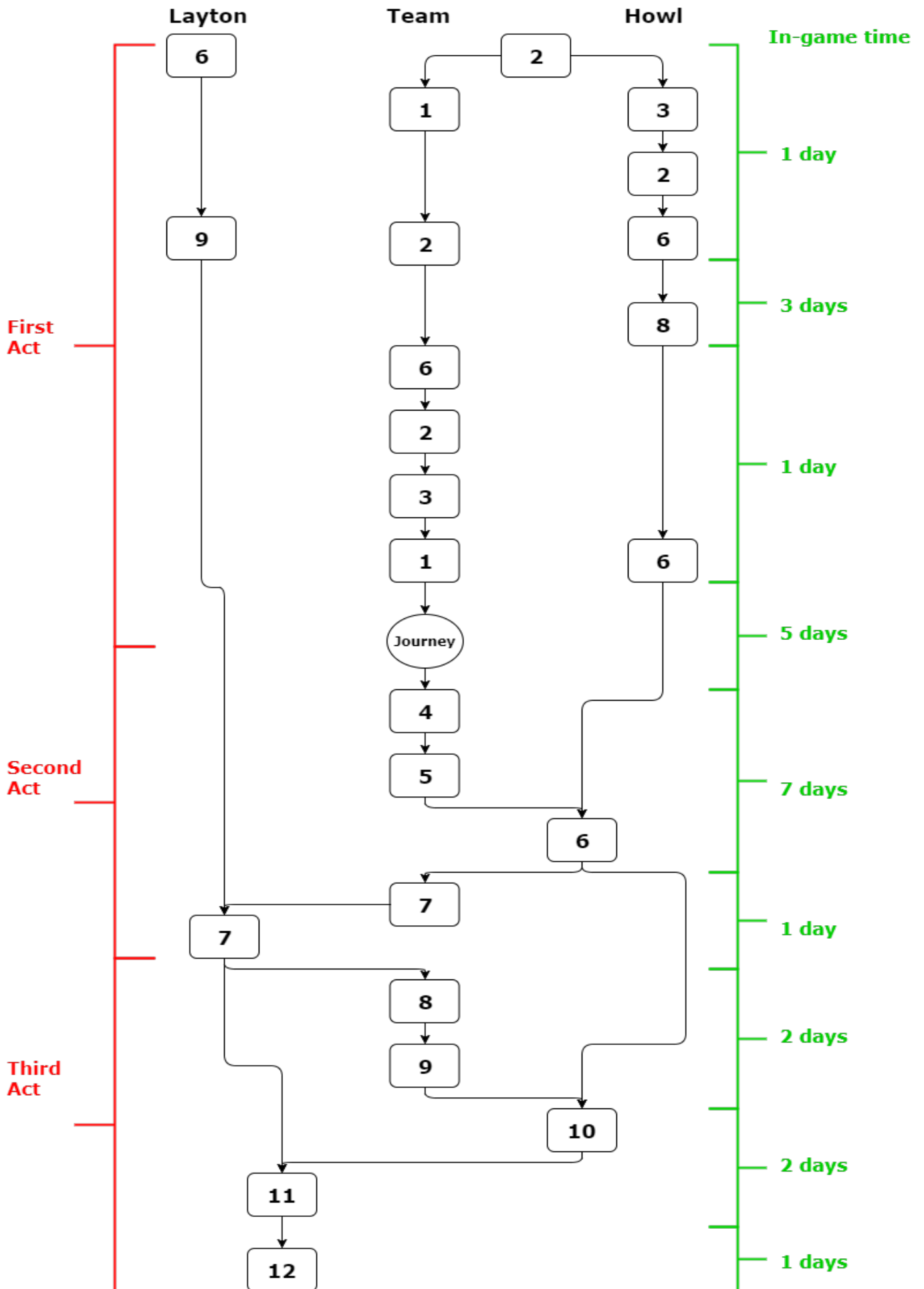
Picture 9: The legend for the world diagram it's the same we have used for the story flowchart
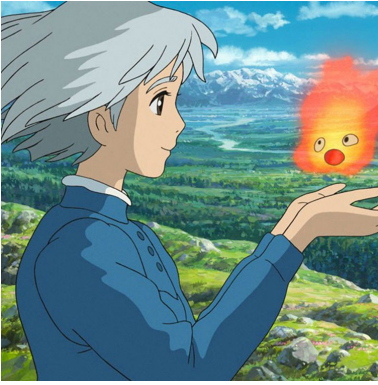
11 - Story flowchart
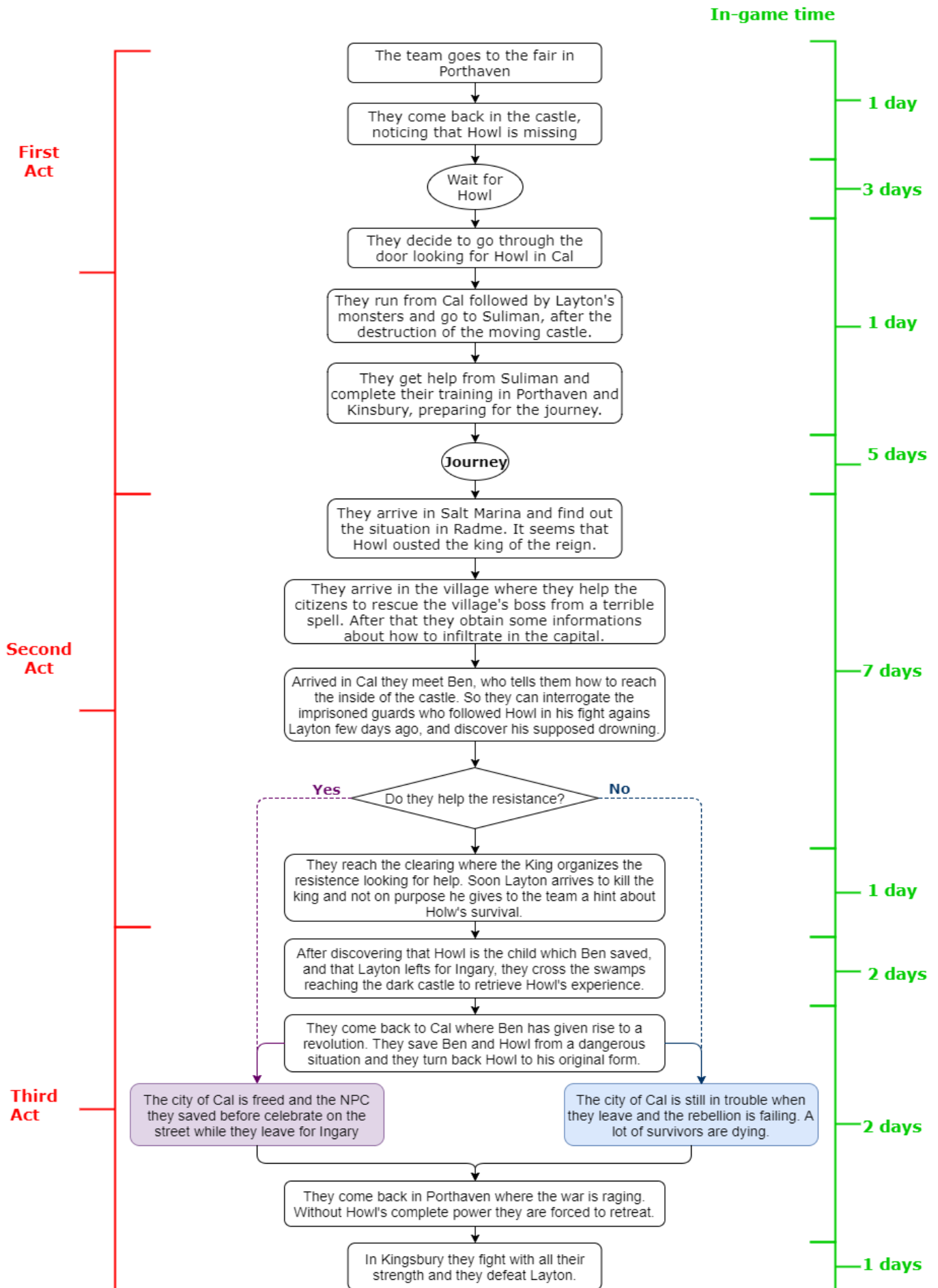
Picture 10: The legend for the story flowchart it's the same we have used for the world diagram

Picture 11: The legend for the story flowchart it's the same we have used for the world diagram

12 - Characters

## Sophie Hatter

© 2004 Studio Ghibli

Sophie is a young witch, in love with Howl and friend of all of the castle guests. Genuinely cheerful and positive, she is able to exert an innate influence on those around her. Sophie, decidedly wise for her age, seems to positively influence the fate of the difficulties she has to face, and of those she meets. As soon as the scope of the danger is understood, she manages to keep control of the situation and to meet her fate, keeping high the morale of the group, that loves her very much in return. In Sophie the calm meekness of an elderly lady and the vital energy of a young girl coexist, to which the sure pride of a sorceress will be added soon.

Sophie has recently discovered her magical potential, so the girl dedicates herself for a period to the first experimentation of the magical arts, with howl and Suliman as masters and Calcifer and Markl as allies. It is immediately evident how confident she is with the magic world, so, once learned how to control it, she brilliantly overcomes a first training. Meanwhile, her relationship with Howl is strengthened, and their life as a couple proceeds happily, except for some hitch linked to Howl's childish character.

Stats	
Class	Magic-user
Level	5/6
Strength	8
Constitution	13/14
Dexterity	14
Intelligence	18
Wisdom	14
Charisma	16
HP	24/+5
Mps	32/+6
AC	8
TAC0	17/15

She is the strongest member of the team. As a magic user is initially undefended, but has a very powerful growth curve.
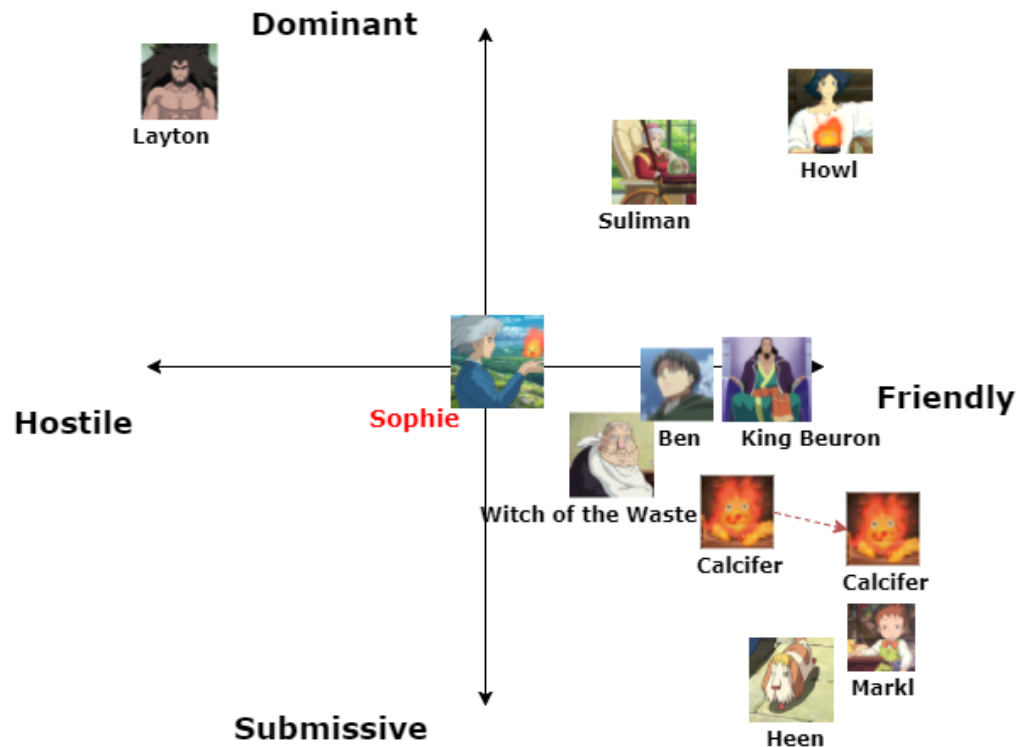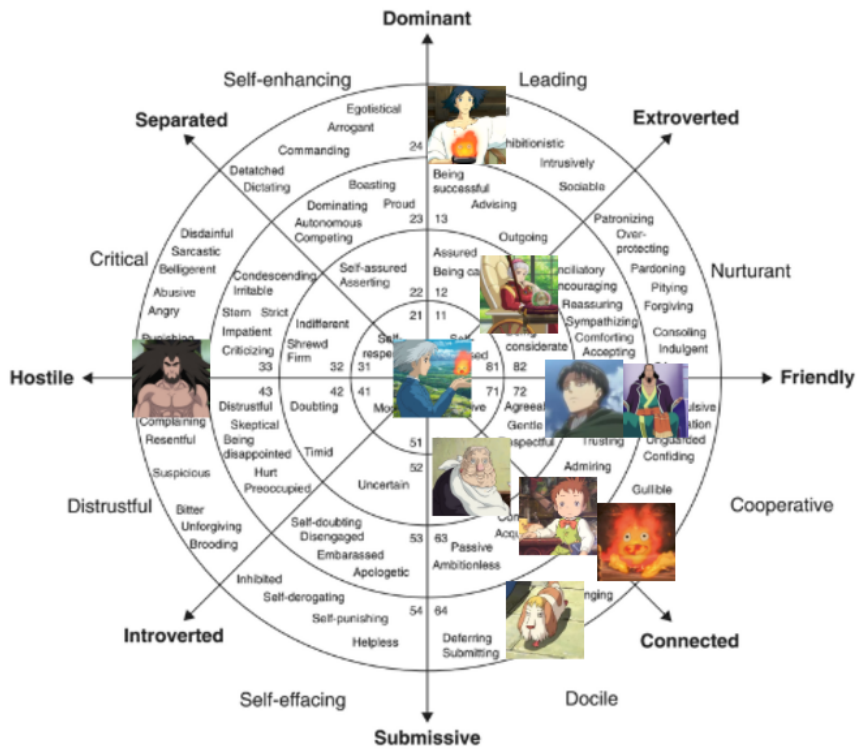
Picture 12: Sophie's circumplex
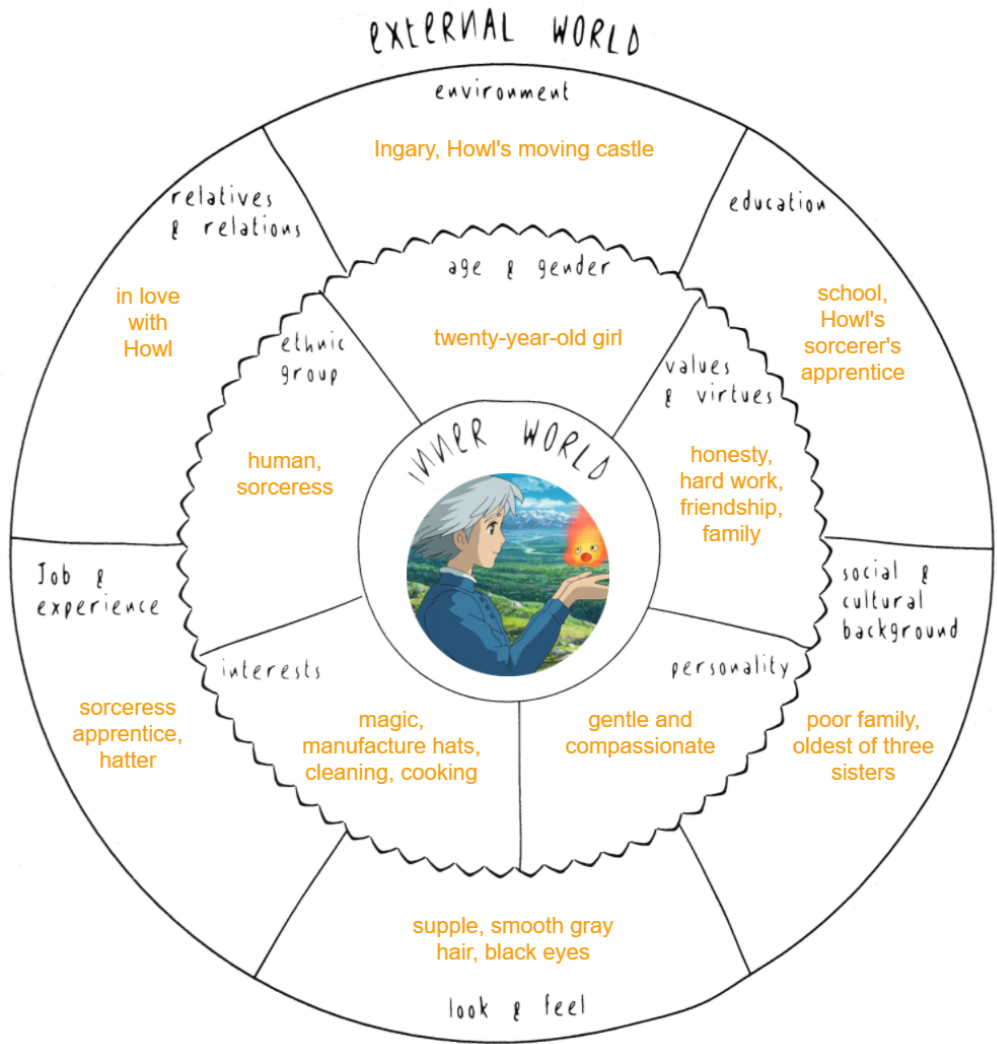

Picture 13: Sophie's circumplex

Howl

© 2004 Studio Ghibli

Howl is a powerful wizard, he is in love with Sophie and is the owner of the moving castle. He can rely on the support of his friend, the fire demon Calcifer, and the young apprentice Markl. He is very vain, he dyes his hair and pays great attention to how he dresses. When he's depressed he evokes the spirits of desperation, evil demons that emanate rivers of green slime able to break down and to control the feeble souls. Howl, although he's extremely good, still is childish and narcissistic, and despite of the great security he flaunts, intervening whenever essential, he has a tendency toward depression and a deep fear of failure. These aspects of his character make him tended to paranoid thoughts and to an evasive behavior, in particular with the authoritarian figures like his teacher Suliman, that persists even after finding more emotional stability thanks to Sophie. His new relationship is a big change for his rigidity, and it has a powerful influence on him. He immediately recognizes his own desperation's green slime on Layton's monsters coming to Ingary.

Howl recalls that time when his apprentice mate (Layton) tried to steal Calcifer from him while they were still studying at Suliman's.
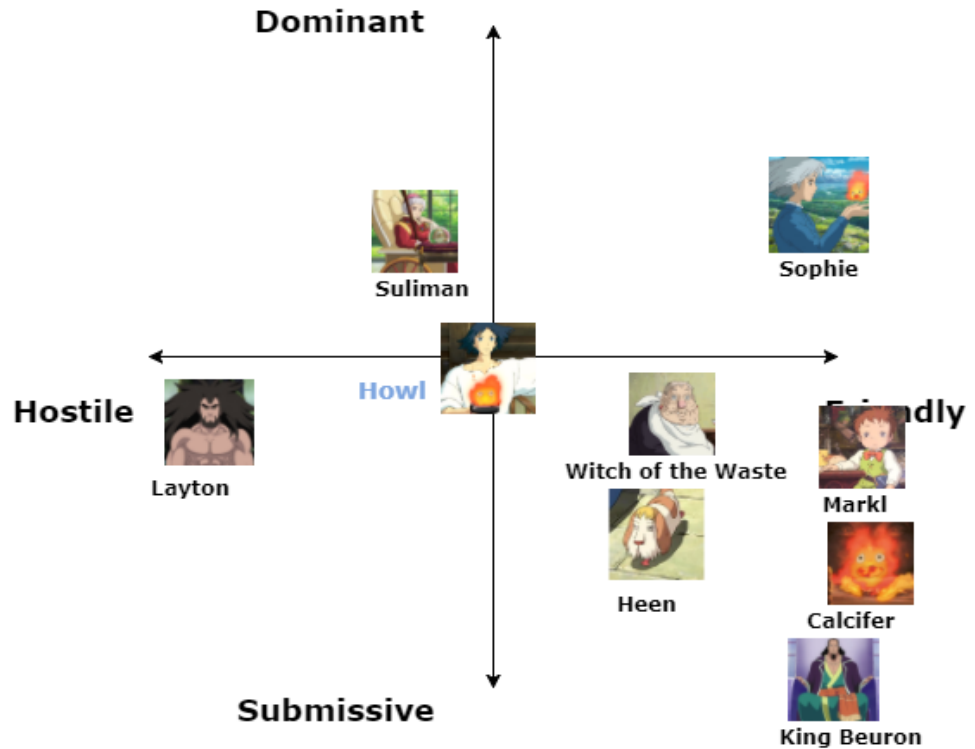
Orphan child

© 2004 Akira Amano

The orphan child is extremely cheerful and lively, but at the same time almost silent and without memory. He follows Ben everywhere he goes, sometimes even without his permission. Aesthetically remembers Howl, but it is very dirty, and his eyes and hair are brown (when he was adult, they were colored with magic).
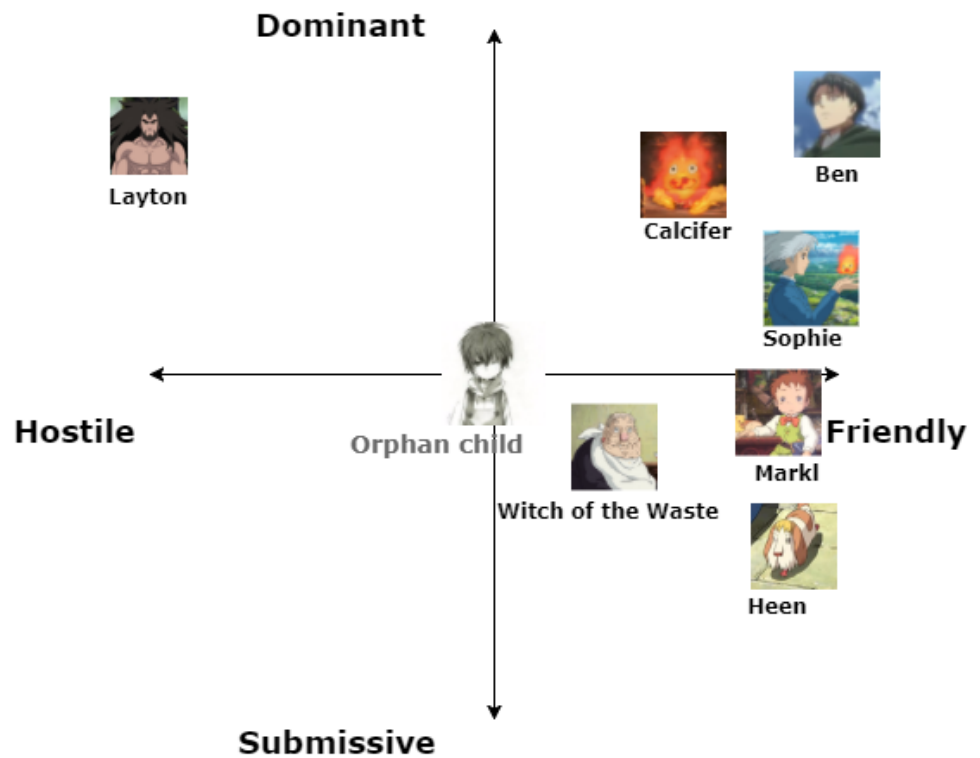
Layton

© 2002 Masashi Kishimoto

Egocentric and maniacal, Layton has developed a symbiotic bond with the slime of the spirits that Howl produces, which allows him to control them, spreading despair on everything that crosses his path. He intends to take revenge on Howl, for the humiliation of being defeated and for the cruel way he was punished, and on Suliman, for preferring Howl om him despite his power was certainly hiding a misconduct or a big fortune.

During this imprisonment, however, Layton has learned how to control the spirits becoming powerful beyond all expectations.

Howl helped him to escape and build a resistance out of town.
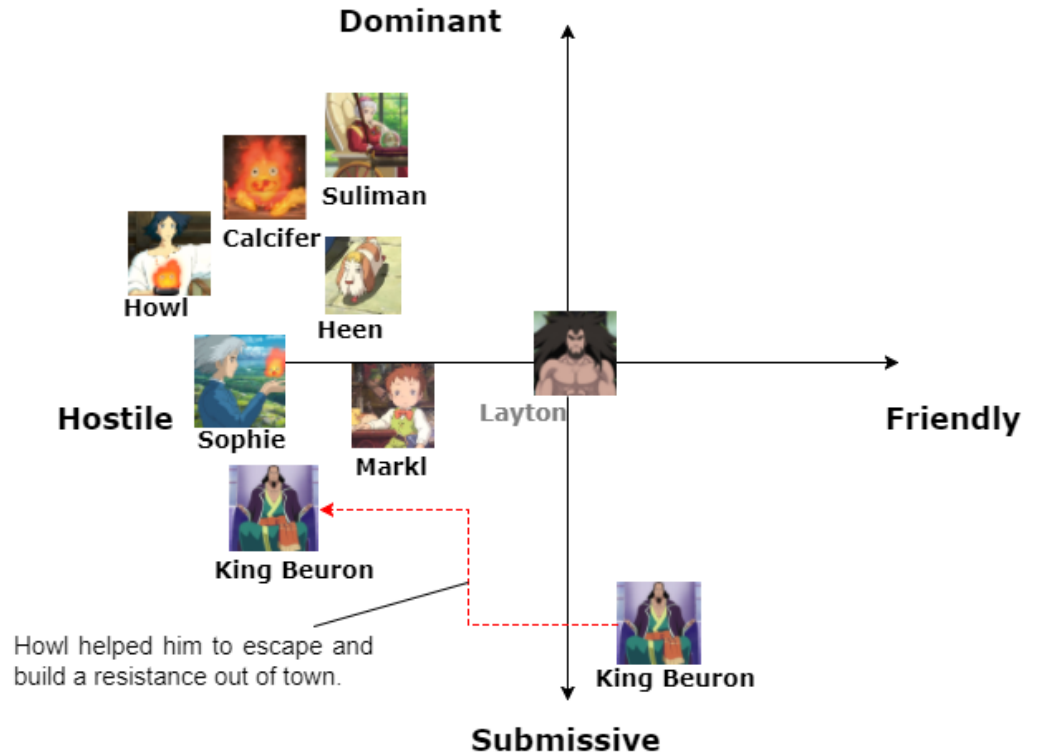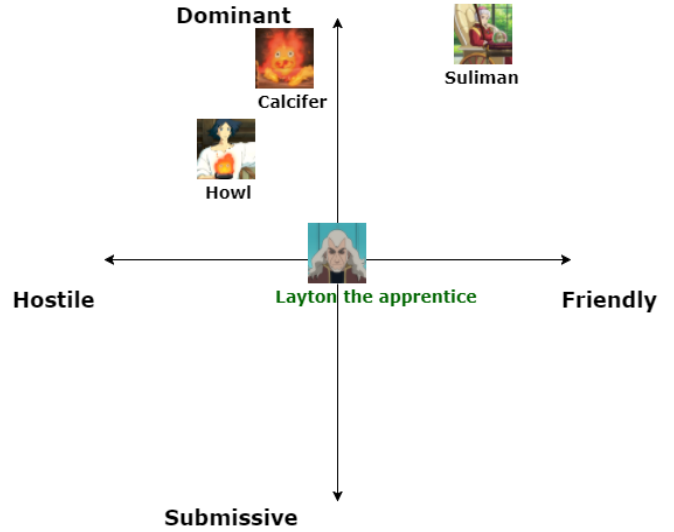
Madame Suliman

© 2004 Studio Ghibli

Suliman is the sorceress of the king of Ingary, and as such is reputed to be the greatest sorceress of the kingdom. She was the teacher of Howl, for whom she is constantly apprehensive and whose behavior can not explain. Despite his powers she can not move, and gets tired easily. This leads her to play a marginal role in the action, but through Heen she is constantly in contact with the group, and controls a small network of emissaries on Radme.

She does not know that Layton has merged with the spirits of despair after having fought with Howl and must accept his disappearance. She searched the parts of Heen for a long time to reassemble the body of Ingary's best soldier. So is aware of several places where parts of Heen may have been spotted, even in Radme.
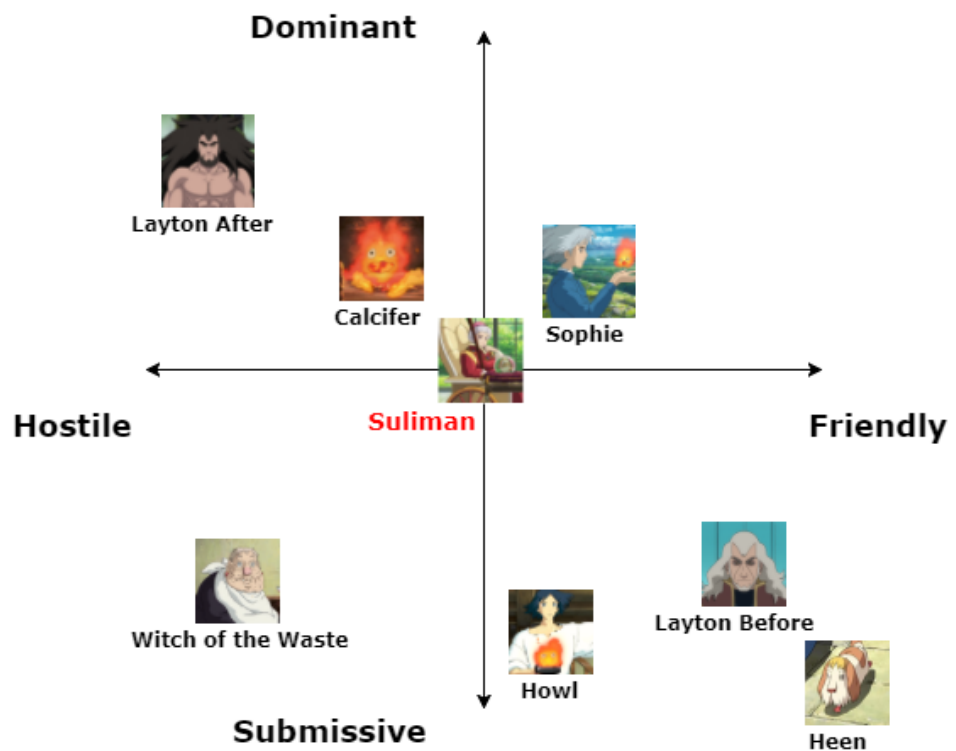
Calcifer

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Calcifer is a young and powerful fire demon, freed by the magical power of Sophie. Now it is extremely autonomous and can move on its liking. He is able to amplify the magical power of mages with whom it has a deep bond. He often moves inside an exoskeleton, such as an enchanted armor made with the help of Suliman, which allows him to disguise himself among the people. It is capricious and easily complains, but it is also very determined, and has a profound knowledge of all that is magical.

Since he was freed from the contract, Calcifer is even more tied to his friends, and hardly spends a day away from them. Since the castle has expanded, he travels to the most exotic places.

He moves awkwardly in his armor, and must make a great effort to bend his limbs in a coordinated way with the steam, yet he learns how to shoot his parts, accumulating pressure.

Stats	
Class	Elf
Level	5/6
Strength	15/16
Constitution	16
Dexterity	12
Intelligence	13
Wisdom	14
Charisma	18
HP	40/+6
Mps	20/+4
AC	6
TAC0	17

Versatile and powerful, calcifer can afford to run out of MPs soon, and then launch terrible physical attacks.
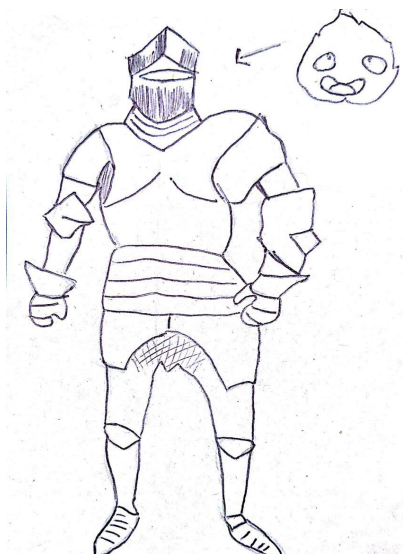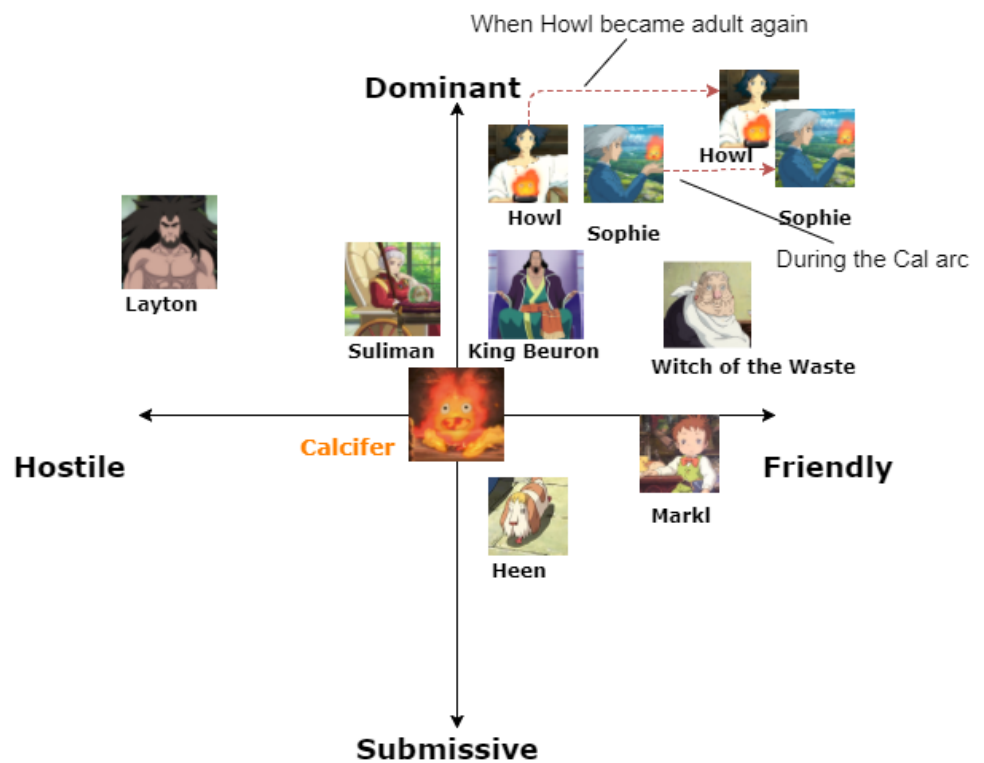
Picture 14: Calcifer armor
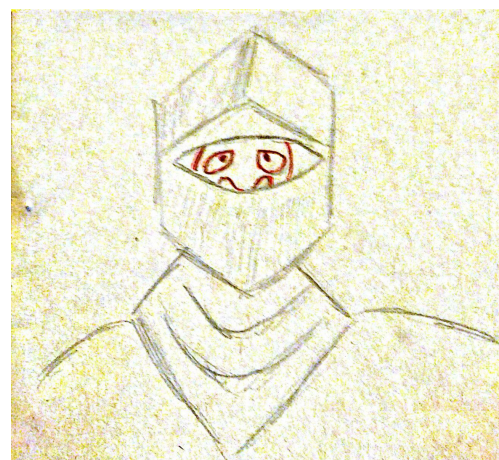
Picture 15: Calcifer armor: head detail

Heen

© 2004 Studio Ghibli

He is the most faithful servant of Suliman. Known by everyone in the form of a dog, he has obtained the ability to return to his state of huge human, even if incomplete and similar to a golem. His will is all about serving Suliman and Sophie who have a great influence on him. However, while traveling with the group, he pays attention to the eventual discovery of one of his parts, which leads him to a better state of consciousness and health.

Heen is actually the greatest warrior of Ingary, who years ago was cursed by the Witch of the Waste, and teared apart in different parts. Although Heen remains the most important part of the body, his other parts have been sold or lost by the Witch over the years. Suliman has been rowing for years to reassemble him but she is too sick for a mission like that and had little success.

Stats	
Class	Warrior
Level	5/6
Strength	18
Constitution	17/18
Dexterity	10
Intelligence	6
Wisdom	10
Charisma	8
HP	48/+11
Mps	5/+1
AC	7
TAC0	17

Tank of the group, is constantly taken care of with health potions: in his absence the wizards are at the mercy of the enemies.
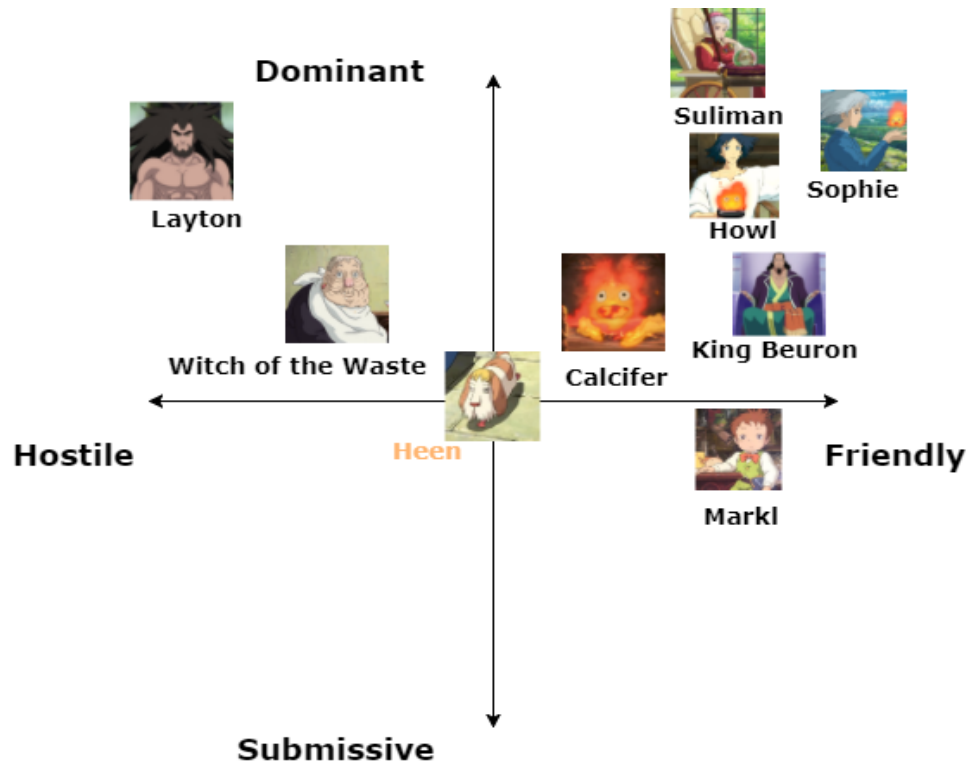
King Beuron

Picture 16: © 1997 Eiichiro Oda

Beuron is the King of Radme, his castle is on the main hill of Cal. Beuron's mind was one of the first to be controlled by the slime in the capital, this led him to age prematurely and to mature a discreet paranoia. He is still a skilled strategist, completely devoted to Howl, who saved him as soon as he arrived in Cal. Helps a lot Sophie and her companions, he has in fact gathered a resistance out of the city, where refugees are heading from all over Radme

Beuron is known as the best Radme King of the last centuries. It allowed the continent to develop quickly, which soon led to compete with Ingary. The sudden death due to illness of his two sons leads him to depression, and Layton easily makes him fall under his clutches.
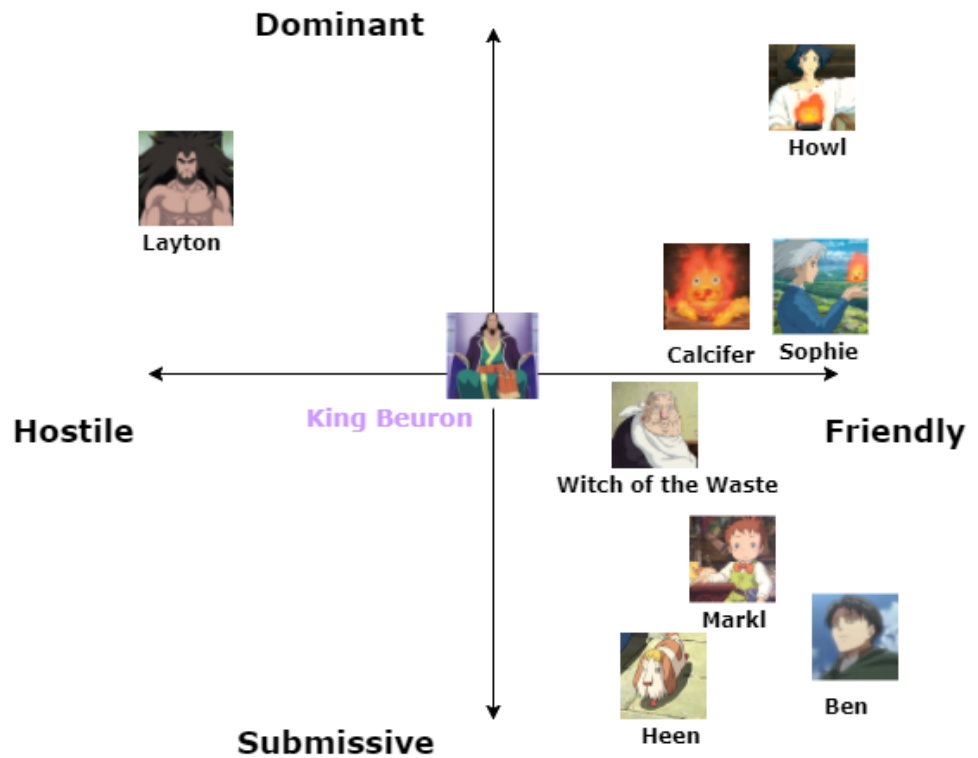
Ben

© 2009 Isayama Hajime

Faithful guard of King Beuron, expert in many techniques of combat and infiltration, he honorably accepts the task at the forefront of Cal, where he has the opportunity to study the phenomenon of the slime and to save several people.

Trained by the best masters of Radme at the behest of the King himself, who saw his potential, Ben always proved to be virtuous and honest, helping the weak with great modesty.
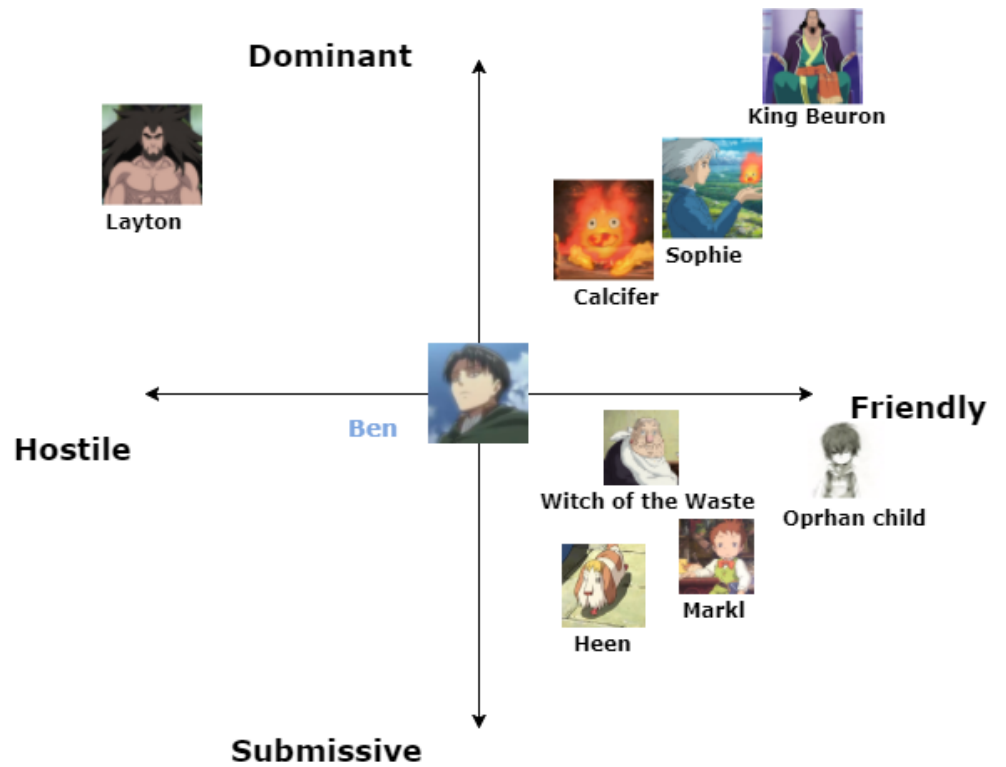
Markl
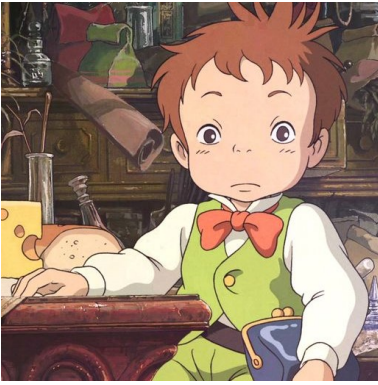
© 2004 Studio Ghibli

Markl grew quickly, in a few months he gained several centimeters and became a good level apprentice. Motivated by the presence of Sophie, Markl has made a lot of progresses, and now controls a discreet power. Nevertheless, he continues to show a certain insecurity, and he asks for help with his own spells.

Even if he easily get scared, often tries to infiltrate the narrow spaces with Heen, to unlock the steps to the team. His physical weakness and insecurity, but excellent acumen, make him the ideal counterpart of Heen, strong and dumb.

Stats	
Class	Magic-user
Level	5/6
Strength	7
Constitution	11
Dexterity	16
Intelligence	17/18
Wisdom	12
Charisma	14
HP	20/+4
Mps	25/+5
AC	7
TAC0	17/15

Like Sophie but slightly less experienced.
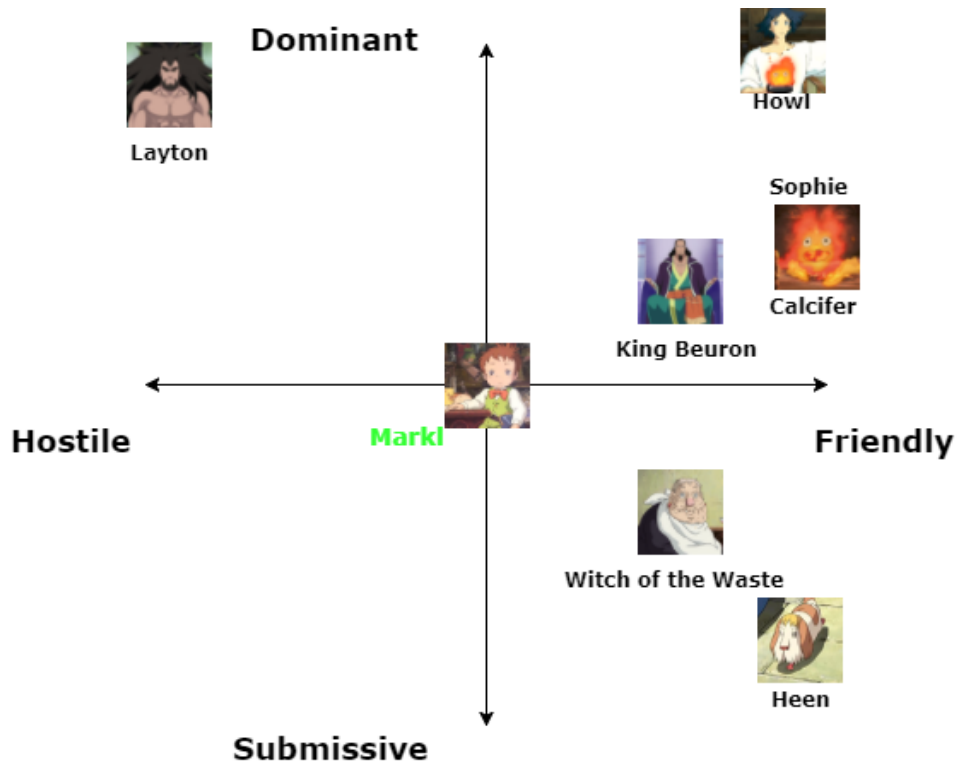
Witch of the Waste

© 2004 Studio Ghibli

She's apparently a completely harmless old woman. She has a great experience with magic but his brain is too old to be able to use her knowledge in a functional way. On many occasions her intervention adds an element of randomness to the situation, as she is very naive and curious. Suliman gave her a magic stick, which allows her to keep up with the team. She Helps the group as an odd counselor.

The most powerful and arcane spell that the witch has ever performed allowed her to form a puzzle with parts of Ingary's most powerful warrior (Heen), obtaining a prodigious object from each. Unfortunately, over the years she has lost or sold them all.

Stats	
Class	Old Cleric
Level	5/6
Strength	12
Constitution	13
Dexterity	12
Intelligence	14
Wisdom	15/16
Charisma	10
HP	24/+5
Mps	28/+5
AC	9
TAC0	17/15

Knows black and white magic. Is the most defensive character of the team.
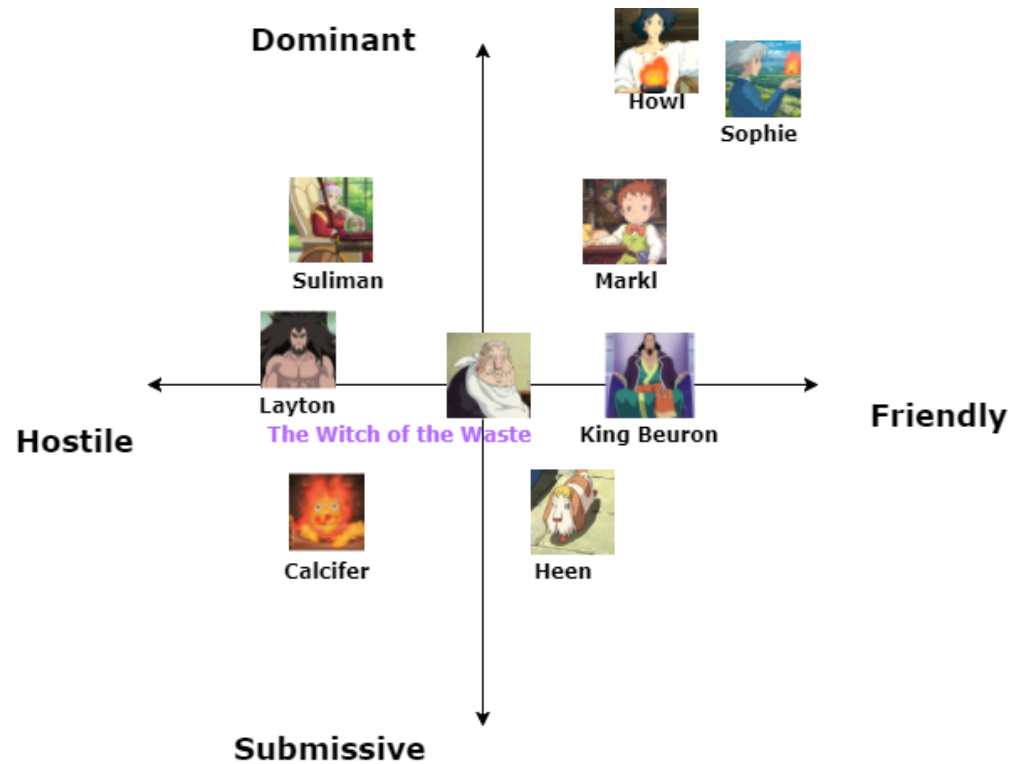
13 - Characters relationships

During apprenticeship
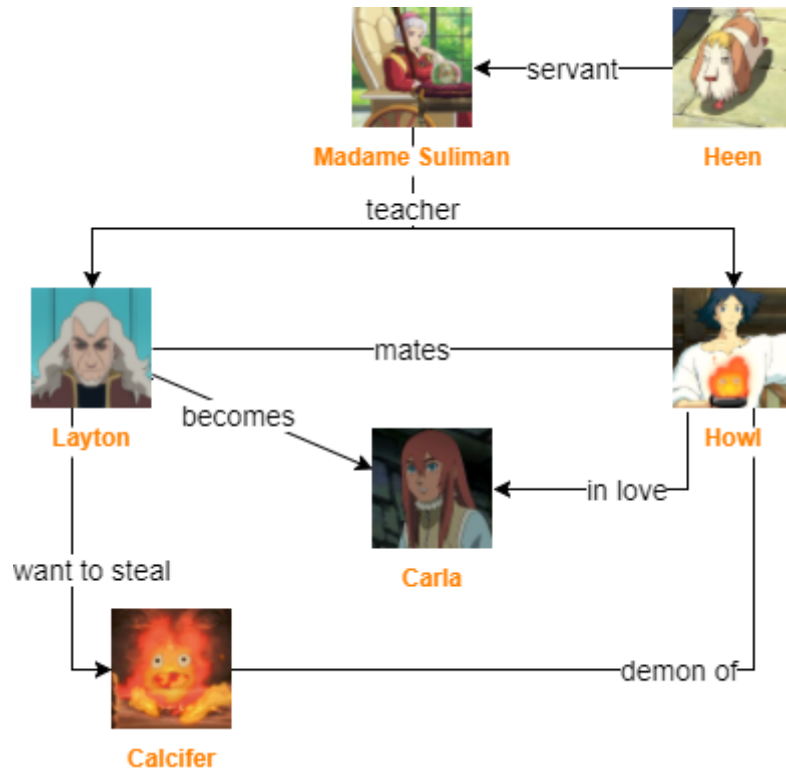
Beginning of Act 1
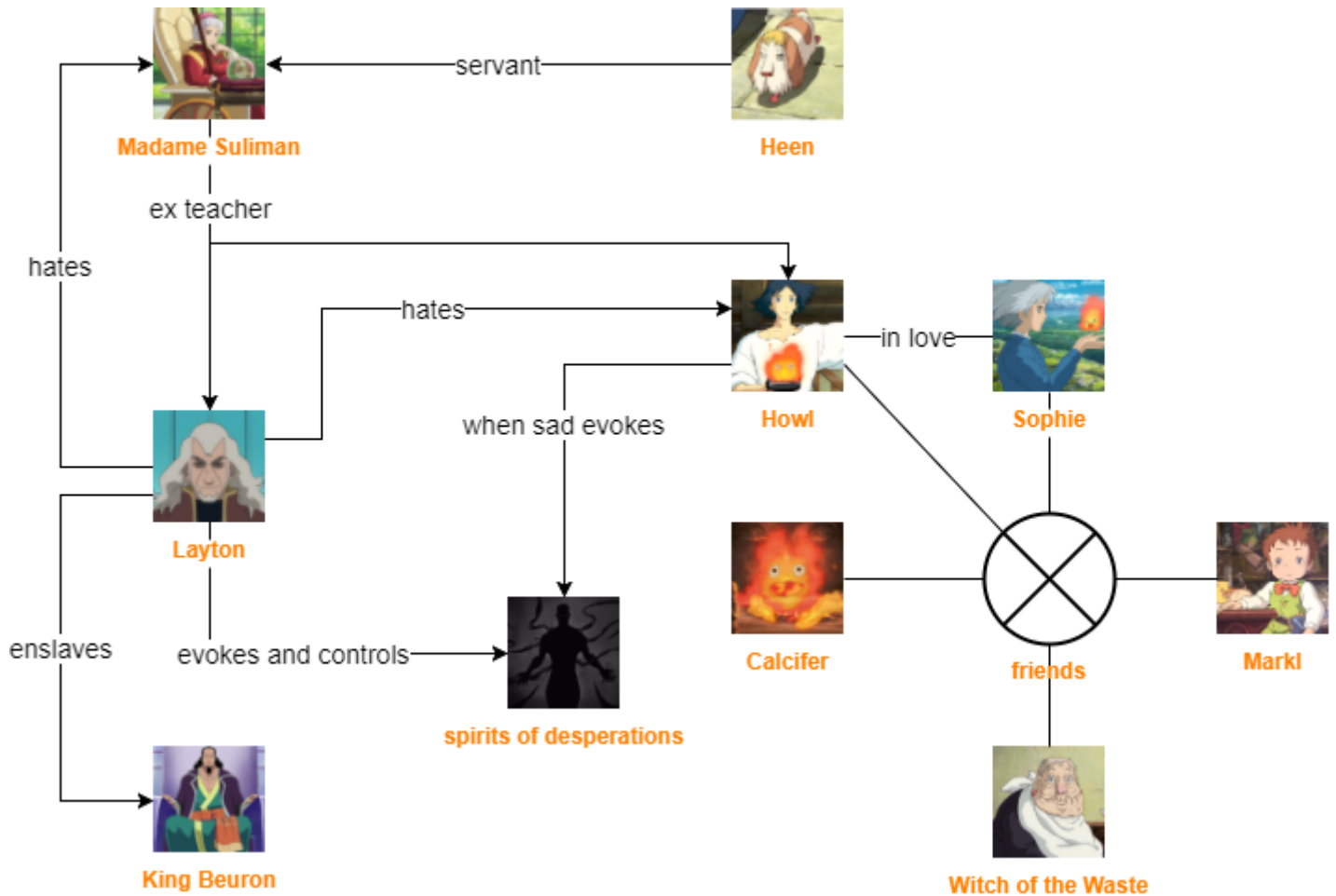
Ending of Act 1
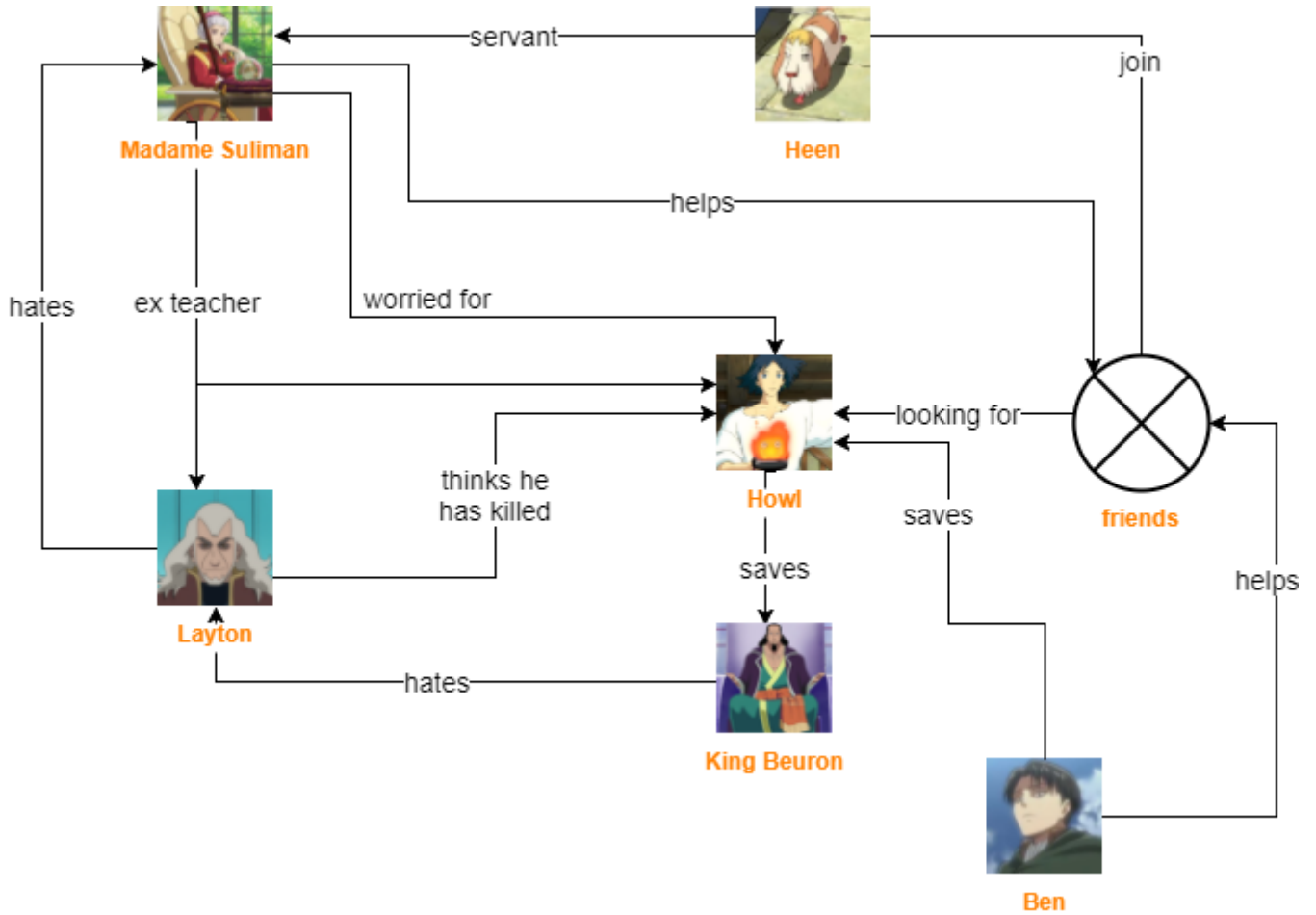
Ending of Act 2
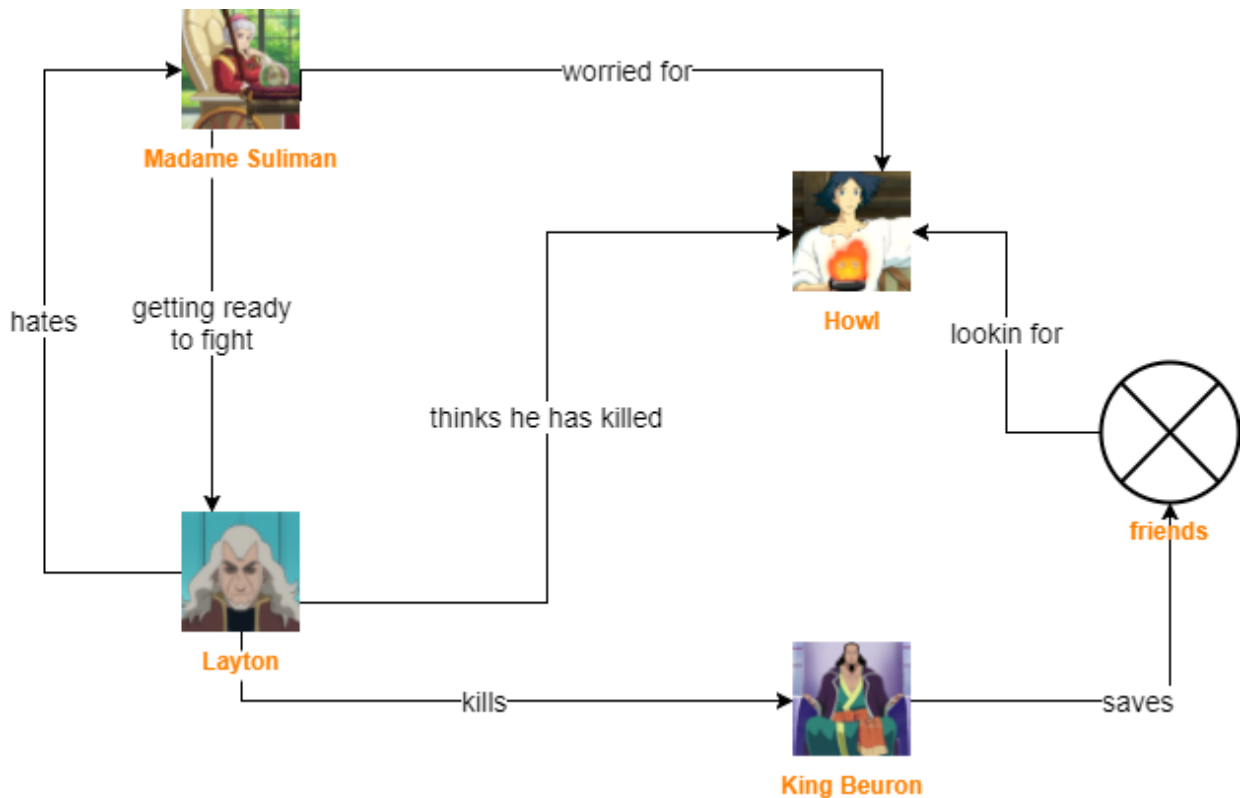
14 - Skills and rewards

Exploration skills

The characters learn new skills during the story. Below there is the list of possible skills and a table witch shows the levels in which they learn to use them.

1. Sophie

    1.1.   Sophie is able to speak with objects that attract her interest, ordering them to perform actions useful for the game-play. She has this ability from the start of the game, and its use is already required at the Portheaven Fair.

    1.2.   To enter Cal, Sophie will have to speak with an ancient ruin in a language that she doesn't know; in the guild of alchemists she will find a book that will help her to understand the ancient language.

2. Calcifer

    2.1.   Calcifer can abandon its armor, which immediately falls to the ground in pieces, and flies in the form of a shooting star to some points of interest, communicating what he sees. In these phases the camera remains behind the protagonist.

    2.2.   Calcifer uses the pressure in the armor, thanks to special joints given to him by King Beuron, to shoot pieces at a big distance as a cannon.

    2.3.   When they are in the dark, it is always possible to ask Calcifer to shed light.

3. Heen is able to use his brute force to destroy specific walls.

4. Markl manages to infiltrate the narrowest spaces, opening the way for the group.

5. Witch of the Waste uses alchemy to create potions, even during battles, or if the progression in the level requires it.

Character	Skill	Game level											
		1	2	3	4	5	6	7	8	9	10	11	12
Sophie	1.1	✓											
Sophie	1.2						✓						
Calcifer	2.1		✓										
Calcifer	2.2								✓				
Calcifer	2.3					✓							
Heen	3			✓									
Markl	4		✓										
Witch of the Waste	5				✓								

Fight skills

Sophie and Markl are similar characters: they learn new spells exclusively by equipping books for a certain time, their spells mostly have effect at distance.

Calcifer Heen and Witch of the Waste learn new spells / abilities based on which one they used more between the ones they already knew, climbing up to next level.

Calcifer uses mostly spells of fire and physical combat with sharp armor gloves.

Heen use a big ax, and only physical combat. Finding his parts, he gets his strongest skills.

Witch of the Waste uses spells that she recalls as she levels up, and their effects vary in a wide range (randomly), in addition she carries the stock of alchemical potions of the group.

All characters are able to use potions, but Witch of the Waste adds more positive effects. Spells and characters' combat skills can only be used in combat.

Character	Spells using books	Spells by learning	Physical combat	Random effect spells	Healing magic	Potions
Sophie	✓					✓
Calcifer		✓				✓
Markl	✓					✓
Witch of the Waste		✓		✓	✓	✓
Heen			✓			✓

Rewards

Common rewards

The common rewards are given to the player as exploration prizes or as a reward following missions in the various levels. These are of different types: clothes, potions, weapons, object and money.

Items

The relative images are placed in the chapter "Additional reference images - Rewards".

Item	Description	List and code
Calcifer armor	They are armors that reinforce Calcifer's CA.	• CA1: Plate Mail (rare, CA = 3)
Calcifer weapons	They are weapons that reinforce Calcifer's damage.	• CW1: Gloves reinforced with metal tips (damage equal to a sword) (uncommon, 1d8) • CW2: Gloves reinforced with blades (damage equal to a Two-Handed Sword) (rare, 1d10)
Magic clothes	The magic clothes are SPECIAL clothes wearable only by humans with magical skills (Sophie, Markl). They provide a fair light armor but a high increase of the Intelligence.	• MC: Whisper Tunic (rare, CA = 7 and Intelligence +2).
WoW armors	They are armors that reinforce WoW's CA.	• WA1: Leather Armor (common, CA=7) • WA2: Chain Armor (uncommon, CA=5)
Accessories	Accessories are small objects that provide upgrades in various statistics. Depending on the category to which they belong, you can wear multiple objects of the same type. There are necklaces and rings (wearable by Markl, Sophie and WoW) and stones to be set in the armor or in weapons (Calcifer, Heen).	• A1: WoW necklace (rare, medium life point up and Intelligence +1) • A2: Markl necklace (rare, medium life point up and Wisdom +2) • A3: Stone of the Intelligence Calcifer (uncommon, Intelligence +2) • A4: Stone of Life Calcifer (rare, medium life point up) • A5: Stone of Life Heen (rare, medium life point up) • A6: Sophie - Heen dexterity stone (common, Dexterity +2) • A7: Sophie necklace (rare, medium life point up and Wisdom +1)
Alchemical items	Alchemist objects are used to create potions, they can be both plants and peers of animals. They are consumable and can be found both in nature and in city markets.	

Potions	Potions are consumable tools that have a different effect depending on the type. They can also be created by characters with mastery of alchemy.	• Potion of healing: Restore 1d10 +1 hit points.
		• Potion of heroism: This has no effect on a cleric, elf, magic users or thief. A fighter, dwarf, halfling, or normal man (or monster) gains the Hit Dice, hit points and all abilities of a higher level character as follows:
		  ○ Normal man: becomes a 4th level fighter
		  ○ 1-3: Gains 3 level or hit dice
		  ○ 4-7: Gains 2 level or hit dice
		  ○ 8-10: Gains 1 level or hit dice
		  ○ 11+: No effect
		• Potion of Invulnerability: The user's Armor Class and Saving Throws gain bonus of 2 for he duration of the potion.
		• Potion of speed: the user moves twice as fast, may attack twice per round, and performs other actions except spell casting at twice normal speed.
		• Potion of Fire Resistance: The user cannot be harmed by normal fires and gains +2 bonus to all Saving Throws against fire attacks.
		• Etere: Restore 1d10 mana points

Heen weapons	Heen has the opportunity to receive weapons and pieces of armor that allow him to enhance his statistics.	• HW1: Mace (common, 1d6) • HW2: Battle ax bat (uncommon, 1d8) • HW3: Double-headed (rare, 1d10)
Heen armor	Heen has the opportunity to receive pieces of armor going to increase the armature statistic.	• HA1: Chain Mail (uncommon, CA = 5) • HA2: Plate Mail (rare, CA = 3) • HA3: Shield (rare, +1 CA)
Phoenix tail	This object allows you to bring back to life a player who has dropped to 0 HP	• Restore 1d10 +1 hit points.

Item – level

This table shows in which level a specific object is present.

Item code	Game level											
	1	2	3	4	5	6	7	8	9	10	11	12
CA1							✓					
CW1			✓									
CW2					✓							
MC (Sophie)									✓			
MC (Markl)						✓						
WA1 (WoW)					✓							
WA2 (WoW)						✓						
A1 (WoW)									✓			
A2 (Markl)								✓				
A3 (Calcifer)						✓						

Item code	Game level											
	1	2	3	4	5	6	7	8	9	10	11	12
A4 (Calcifer)					✓							
A5 (Calcifer)										✓		
A6 (Sophie)										✓		
A6 (Heen)			✓									
A7 (Sophie)		✓										
HW1		✓										
HW2				✓								
HW3						✓						
HA1				✓								
HA2									✓			
HA3							✓					

In level 6 the player can find four drops inside the missions, exploring the various maps. In particular:

- CA5 is found by exploring the prisons, the player must find the secret passage in the guard post 3 and face the two enemies in the interrogation room.
- MC (Markl) is found by exploring the NO sector of the city inside a shop whose entrance door is semi-open.
- A3 (Calcifer) is hidden in the sewers and is obtained by exploring room Y after having beaten the enemies who preside it.
- HW3 is in the arsenal to which you must log in during the side quest to help the resistance. In particular the player open the trunk placed in the corner of the room.
- There are 4 phoenix tails distributed all around the level, in particular:
  - 1 is on a roofs and it is approachable while the team is going to the base of the resistance.
  - 1 is in the base of the resistance.
  - 1 is in the East citadel.
  - 1 is in the sewers.

Exploration rewards

The exploration rewards are special collectible rewards characteristics of the area in which the player is located. They do not change the statistics but provide a small reward in Exp.

In level 6 the exploration rewards are objects, scrolls and books dating back to the ancient civilization that explain a little the history of these people who populated Cal in the past. Objects always have some engraved rune that the player can read by examining them.

Among the objects there are also booklets or parchments that explain much more about the culture and life of ancient civilization on habitats.

In total in the city of Cal in level 6 you can find 22 objects distributed as follows:

- City: 11 (3 N-O, 4 S-O, 4 S-E)
- Castle: 2
- Prisons: 1
- Port: 2
- Barracks: 1
- Arsenal: 0
- Tower: 1
- Base of resistance: 2

- Tavern: 1
- Sewers: 1

Objects in the city can be found on the sides of roads, on the ground or in accessible spaces inside buildings.

Special rewards

Magic-users spells

This table shows in which level the book for learning a certain spell is present.

Spell name	Spell level	Game level											
		1	2	3	4	5	6	7	8	9	10	11	12
Light	1	✓											
Magic missile	1	✓											
Sleep	1		✓										
Mirror Image	2			✓									
Fireball	3					✓							
Lightning Bolt	3				✓								
Hold Person	3						✓						
Remove Curse	4						✓						
Ice Storm	4							✓					
Cloudkill	5									✓			
Hold monster	5										✓		
Disintegrate	6										✓		

First level magic-users spells

Spell name	Description
Light	• This spell creates a large ball of light, as if a bright torch were lit. The light appears in the air over the player. • Costs 1 Mps/min.
Magic missile	• A magic missile is a glowing arrow, created and shot by magic, which inflicts (1d6 + 1) points of damage to any creatures it strikes. The missile never misses its target and the target is not allowed a Saving Throw. • Costs 3 Mps.
Sleep	• This spell will put creatures to sleep for X sec or Y turns. The spell will not work against Undead or very large creatures such as a dragon. The victims get no Saving Throw. • Costs 6 Mps.
Healing wounds	• Only Witch of the Waste- can heal a member of the team, restoring 1d6 +1 per level. • Costs 9 Mps.

Second level magic-users spells

Spell name	Description
Mirror Image	• Three illusory duplicates of yourself appear in your space. Until the spell ends, the duplicates move with you and mimic your actions, shifting position so it's impossible to track which image is real. You can use your action to dismiss the illusory duplicates. • Each time a creature targets you with an attack during the spell's duration, roll a

Spell name	Description
	d20 to determine whether the attack instead targets one of your duplicates.
	• If you have three duplicates, you must roll a 6 or higher to change the attack's target to a duplicate. With two duplicates, you must roll an 8 or higher. With one duplicate, you must roll an 11 or higher.
	• Costs 10 Mps.

Third level magic-users spells

Spell name	Description
Fireball	• A fireball is an explosive burst of flame, which detonates with a low roar, and delivers damage proportionate to the level of the magic-user who cast it, 1d6 for each level of experience of the spell caster. If creatures fail their saving throws, they all take full hit point damage from the blast. Each creature in the area must make a Spell saving throw. Those who make saving throws manage to dodge, fall flat or roll aside, taking 1/2 the full hit point damage.
	• Costs 10 MPs
Lightning Bolt	• A stroke of lightning forming a line blasts out from you in a direction you choose. Each creature in the line must make a Spell saving throw. A creature takes 8d6 lightning damage on a failed save, or half as much damage on a successful one.
	• Costs 10 Mps.
Hold Person	• This spell will affect human, demi-human and human like creatures. It will not affect the undead or creatures larger than ogres. Each victim must make a Saving Throw vs Spell or paralyzed. The spell may be cast at a single person or at a group. If cast at a single person a -2 penalty applies to the Saving Throw. If cast at a group, it will affect up to 4 persons, but with no penalty to their rolls.
	• Costs 12 Mps.

Fourth level magic-users spells

Spell name	Description
Ice Storm	• A hail of rock-hard ice pounds to the ground in a specific area. Each creature in the cylinder must make a Saving throw vs Spell. A creature takes 2d8 bludgeoning damage and 4d6 cold damage on a failed save, or half as much damage on a successful one.
	• Costs 16 Mps.

Fifth level magic-users spells

Spell name	Description
Cloudkill	• You create a Sphere of poisonous, yellow-green fog centered on a point you choose within range. The fog spreads around corners. It lasts for the Duration or until strong wind disperses the fog, ending the spell. Its area is heavily obscured. When a creature enters the spell's area for the first time on a turn or starts its turn there, that creature must make a Constitution saving throw. The creature takes 5d8 poison damage on a failed save, or half as much damage on a successful one. Creatures are affected even if they hold their breath or don't need to breathe.
	• Costs 20 Mps.
Hold monster	• Choose a creature that you can see within range. The target must succeed on a Wisdom saving throw or be paralyzed for the duration. This spell has no effect on undead. At the end of each of its turns, the target can make another Wisdom saving throw. On a success, the spell ends on the target.
	• Costs 20 Mps.

Sixth level magic-users spells

Spell name	Description
Disintegrate	• A thin green ray springs from your pointing finger to a target that you can see within range. The target can be a creature. A creature targeted by this spell must make a Saving throw vs Spell. On a failed save, the target takes 10d6 + 40 force damage. If this damage reduces the target to 0 hit points, it is disintegrated. A disintegrated creature and everything it is wearing and carrying, except magic items, are reduced to a pile of fine gray dust. • Costs 35 Mps.

Position of books in level 6

Book for spell	Position
Ice Storm	Castle: room 13
Hold Person	Guild: floor 2

15 - Audio design

The sounds are played on 5 different audio channels (rows are ordered by increasing importance):

1. Score.
2. Ambient sounds.
3. Sound clues.
4. Sound effects.
5. Actor voice.

Whenever a sound is played on a channel, on that channel can not be reproduced anything else.

It's possible to play a sound by lowering the volume of the previous channels for the entire playback time.

Tempo

In musical terminology, tempo is the speed or pace of a given piece. Tempo is typically indicated with an instruction at the start of a piece and is usually measured in beats per minute.

Tempo	Description	Bpm from	Bpm to
Larghetto	Rather broadly	60	66
Adagio	Slowly with great expression	66	76
Andante	At a walking pace	76	80
Andantino	Slightly faster than andante	80	108
Moderato	At a moderate speed	108	120
Vivace	Lively and fast	156	172
Vivacissimo	Very fast and lively	172	176

Level music

- Score is played back at the start of a level or at the start of an animation, specified in chapter "Script of level 6 - Cal".
- Soundtrack have not been used.

Scores

- Persian [andante, larghetto]
- Medieval [larghetto, vivacissimo]
- Military [adagio, vivace]
- Cello [adagio, moderato, larghetto]
- Viola [andantino]
- Acoustic guitar [adagio]

Noise

- The reproduction of ambient sounds begins when the distance from the center of origin, indicated on the map, is less than 100 meters. The volume with which are reproduced is proportional to the distance of the center of origin.
- Sound clues are played when a specific event occurs, as specified in chapter "Script of level 6 - Cal".
- The sound effects are played when an event occurs (eg. collisions).

Ambient sounds

- Wind [very light, light, normal, medium]
- Water flow [light, normal]
- Wave noise
- Rustling of grass

- A few crickets
- Voices of people
- Noise of wheels of wooden wagons
- Some clashing of copper objects
- Boots on wood

Sound clues

- Egyptian trumpet
- Chorus of Egyptian trumpets
- Violin string that stride
- Piano scale
- Trumpet [adagio, andantino]

Sound effects

- Zoomer (heen), zoomer (heen) reverse
- Sniff
- Dog shaking
- Noise of wood on wood
- Noise of iron on iron, noise of iron on bricks
- Rolling stones
- Door open, door lock
- Boots in water, boots on soil, boots on wood (x1, x2, x3)
- Stroke in water
- Water flow, water fast
- Thick liquid that boils
- Fire that crackles, fire of fire
- Iron on iron
- Book on wood
- Scream (distorted)
- Squeak
- Plaintive roar
- Sparkle

16 - Level progression

Event diagram

The event diagram shows the contents of the level divided per area. It represents the emotional impact of the different phases of the game in relation to their duration. Even if the areas in the diagram follow the order of the plot from left to right, the armory and the city entrance are side-quest and can be played at any time between the Resistance and the Sewers.
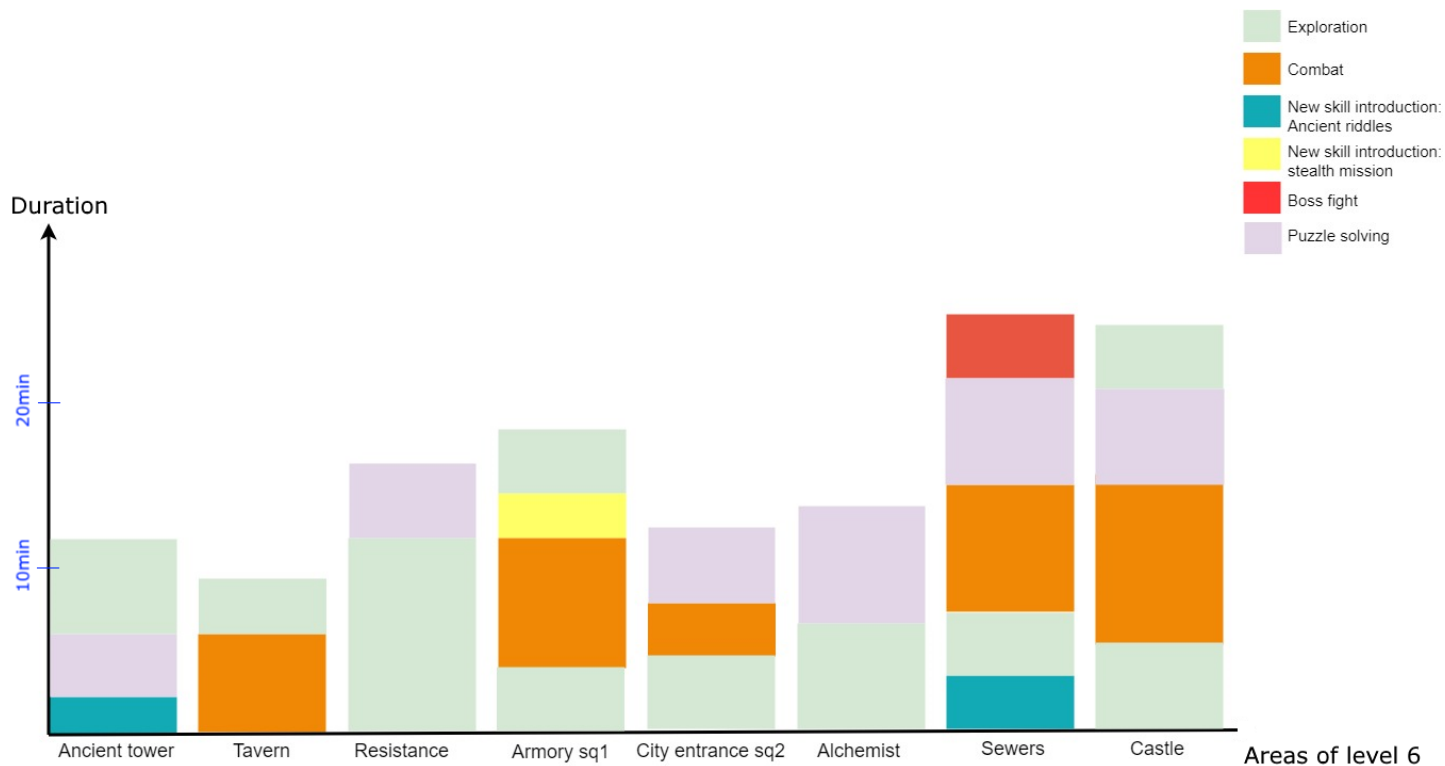
Picture 17: Event diagram

Level flow-chart

MAPS

East Citadel	Boroughs	Base of the resistance	Barracks	Secret passage	Port	Alchemist's Guild	Sewers	Castle

EVENING

Start: the player enters the citadel

The player reaches the citadel, and explores it looking for the secret entrance #1 (opt, explores the ancient tower map).

NIGHT

Arrived in the city, the player reaches the tavern #2, and falls into an ambush.

the player escapes the tavern, following Ben on the roofs, to the resistance base #3.

Ben informs that, to access the castle, the player needs a book hidden in the alchemist's guild #4. In addition assigns 3 sidequest to the player.

MORNING

SideQuest 1. The player reaches the barracks # 6, sneaks playing Markle into the dormitory and steals the weapons for the resistance.

SideQuest 2. The player reaches a building near the east entrance of the city, founds the secret entrance #5 and accesses a new area of the citadel.

SideQuest 3. The player reaches the house of the fisherman at the port #7 and rescues his family.

Inside the guild the player solves the riddles of the alchemist to gain the book of the precursors.
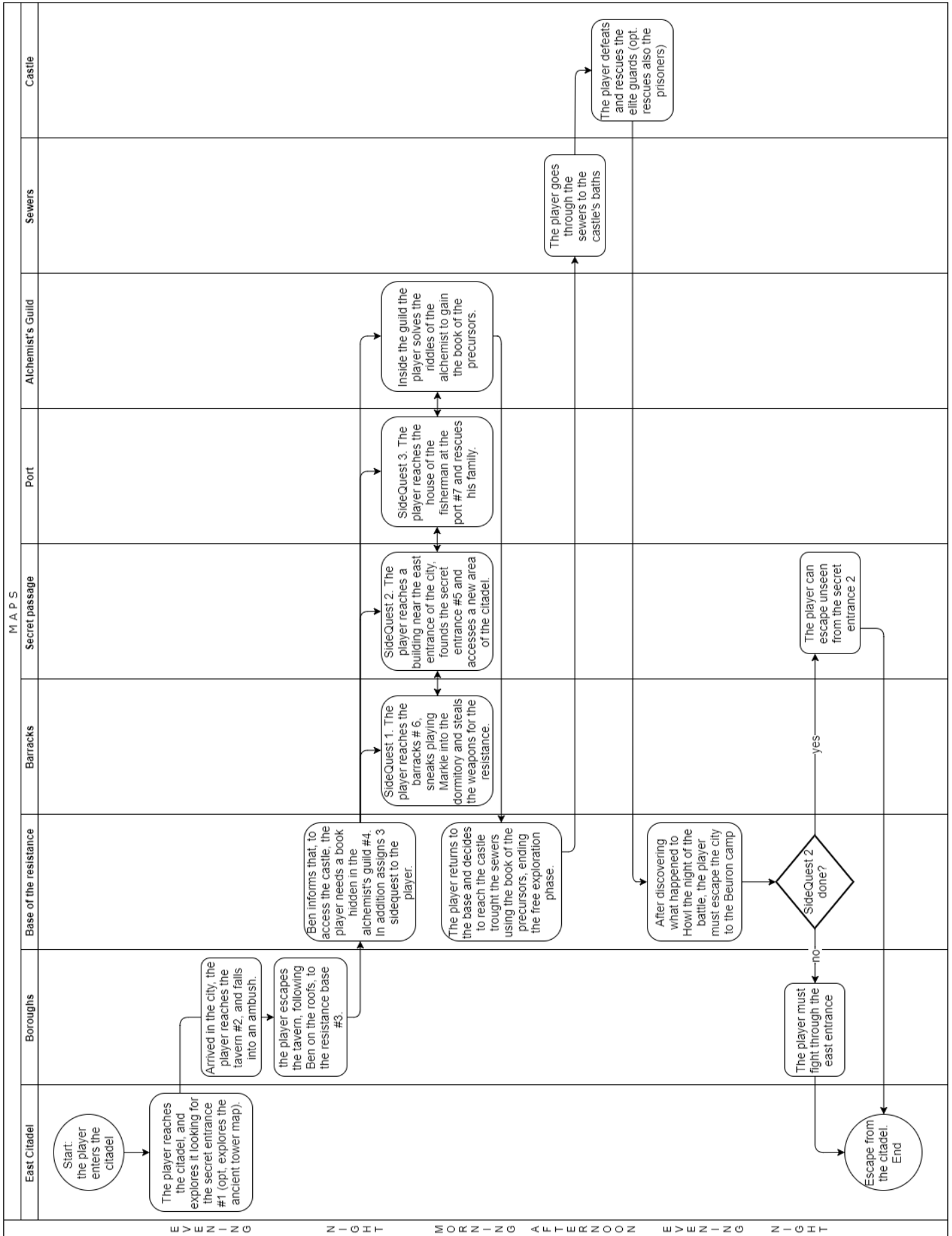
AFTERNOON

The player returns to the base and decides to reach the castle trought the sewers using the book of the precursors, ending the free exploration phase.

The player goes through the sewers to the castle's baths

The player defeats and rescues the elite guards (opt. rescues also the prisoners)

EVENING

After discovering what happened to Howl the night of the battle, the player must escape the city to the Beuron camp

The player can escape unseen from the secret entrance 2

SideQuest 2 done?

yes / no

The player must fight through the east entrance

NIGHT

Escape from the citadel. End

The numbers with hashtag in the chart refer to the legend of the main map of Cal

17 - Script of level 6 - Cal

Level 6, "Cal", is characterized by 18 scenes, as well as 4 (☼) situations in which it is possible to talk freely.

1 – Where they open the door of the walls.

The team has just passed the last hill of the roaring Hills. Finally they see the east citadel, rising up the hill, and on than the great walls of Cal standing over the plateau, in the distance.

♫ Score: Persian theme [Larghetto].

♫ Ambient sounds: wind, rustling of grass, a few crickets.

Sophie: Here it is! It's Cal! Finally, who knows if Howl is still there. Oh! I wonder if he's prisoner!

Heen: Uooof! Uof!… Cal! Caal!

Inside the Citadel Heen transforms himself continuously, changing what he says based on his form. Meanwhile, he goes around Calcifer.

♫ Sound effects: zoomer (Heen), zoomer (Heen) reverse.

Calcifer: Heen stop it.

Markl: It's very far away! We won't arrive before evening!

Sophie: You're right, hurry up.

The team arrives outside the city walls, near the secret entrance 1.

♫ Sound clues: Egyptian trumpet.

Sophie: We should have arrived, but I don't see any door.

Markl: that should be the citadel tower that signals the secret entrance into the walls!

Calcifer: It's magical! We detect his presence.

Witch of the Waste: Yes, yes, we are dealing with a beautiful antique door.

Picture 18: Secret door of the city

Leaning on his magic stick, the witch of the lands approaches the walls and reveals the door tracing its perimeter.

♫ Sound effects: sparkle.

Markl: Uooo incredible, I've never seen anything like this.

Sophie: Perfect, now we just have to pass it before a patrol come through the walls.

The player need to solve an enigma, once solved, the door opens wide.

♫ Sound clues: chorus of Egyptian trumpets.

Sophie: Never let it be said that a magic door refuses to let me in.

After that Sophie opened the door following the procedure given her by the head of the village, they enter in the passage between the walls, and Heen can break through a secret passage.

♫ Ambient sounds: very light wind.

Sophie: Heen, look! This walls can be broken down!

Heen: Heen open a passage!

The walls collapse under Heen's ax hits.
♫ Sound effects: noise of iron on bricks, rolling stones.

Calcifer: It seems really wet down there.

Sophie opens the manhole that leads on the top of the secret passage and sees the city for the first time, it's silent and creepy.
*♫ **Sound effects: Manhole opening, wind over the silence of the city.***

Calcifer: well, here we are. We just have to find the tavern, right? In the boroughs district, should be nearby.
Sophie: yes, we go down to the road and proceed before it is completely dark.

Sophie descends on a stand that runs along the walls, near the small tower from which they came out. But she stops and remains motionless as soon as she sees a patrol coming up.
*♫ **Sound effects: Soldiers walking.***

2 – Where they arrive stealthily to the tavern.

Back on the ground, the team wanders through the city's alleys.
♫ Ambient sounds: voices of people, noise of wheels of wooden wagons, some clashing of copper objects.

Markl: What a dark place here, Calcifer do a bit of light.
Sophie: No Calcifer, stop! You will expose us, in fact, lower the visor of the armor.

Calcifer lowers the visor and the alley becomes even darker.
♫ Sound effects: noise of iron on iron.

Calcifer: And here we are, completely in disguise.

Once arrived at the tavern they see that the inside it's slightly illuminated.
♫ Sound clues: violin string that stride.

Calcifer: To us it looks like a trap.
Sophie: Why would you say that? What was you expecting, a welcoming committee?
Calcifer: No, it's not for the silence, the whole city seems deserted. The problem is that we feel strange energies coming from there.
Markl: In any case we wouldn't know where else to go.
Witch of the Waste: I have to sit down, I'm sick of this stick.

The Witch of the Lands approaches the door and waits for Sophie.

3 – Where they enter the tavern full of monsters.

Sophie opens the door, and the Witch of the Waste and Heen, in the form of a warrior, enter next to her. They find a lot of people in a catatonic state, some sat sloppy, others standing, staring into space. After a few moments, however, all of them turn around the neck to look at the team, as if, lost in their thoughts, have been distracted by the sound of the door. Sophie is the first to react and instructs Calcifer to throw lava spouts all over the place,

Picture 19: The tavern full of monsters

while hitting the nearest monster with a spell. Behind her, Markl hides full of fear as the Witch of the Lands rushes to the assault.

♫ *Score: military music [Vivace].*

♫ *Sound effects: zoomer (Heen), door open, noise of wood on wood, thick liquid that boils, fire that crackles.*

4 – Where Ben arrives in the tavern and they escape from the roofs.

As they finish victoriously, Ben comes downstairs, from the stairs leading to the upper floor.

♫ *Sound effects: boots on wood (x3).*

Ben: Soon! Go upstairs! Many others of them are coming, you have made a mess!

Sophie: And who would you be?

Ben: For now it's enough to know that I fight by your side and that I am not covered with mud.

At the end of the battle they go to the first floor of the tavern.

Ben: My name is Ben, I am a guard of Cal, loyal to the great King Beuron, you rather, how did you end up in the old base of the resistance?

Meanwhile, he looks at them worriedly, with particular attention to the old witch.

Sophie: We're looking for Howl the wizard, he's been missing for days.

Ben: Ah! Just as I imagined, you are Howl's companions! Then you are also my companions. You, old woman, do you think you can jump from roof to roof with that old stick? You know, it's really an emergency.

The witch of the lands stares Ben with love.

Witch of the Waste: My beautiful young man, if the stick was not enough, I studied in my life at least a thousand spells even more useful to the task. I think I should remember at least one.

Ben: And you? With that armor?

Calcifer uses the arms of the armor to lift the empty iron bust.

Calcifer: We are self-sufficient, worried at most to keep the child and that dog away from our feet.

And so the group hurries to proceed on the roofs.

♫ *Score: Persian theme [Andante].*

♫ *Ambient sounds: medium wind, noise of wheels of wooden wagons, some clashing of copper objects.*

Sophie: So you met Howl? In Salt Marina they said that King Beuron gone mad, and that Howl therefore quelled him.

Ben: He did much more, he saved the king from Layton's mental manipulation! Unfortunately, however, immediately afterwards he disappeared. He headed for Layton's fortress with a handful of soldiers. But it's been four days now.

When Calcifer hears pronouncing the name of Layton he petrifies for a moment.

♫ *Sound clues: piano scale.*

Sophie: Do you think they were defeated?

Ben: I don't know how else to explain their missing.

5 – Where they see Layton flying and Calcifer tells his story, while they arrive at the base of the resistance.

Shortly before their arriving at the base where Cal's survivors and resistance are hidden, Calcifer perceives great magic power over their heads. Layton flies over the city to the tavern they have destroyed, which still burns in the night.

On the roofs Calcifer, recounted the past between Howl and Layton.

Calcifer -*worried*-: I always suspected that Layton was the origin of the mud, but I was looking for a confirmation.

Sophie: Layton? Who? What are you talking about?

Calcifer: We can explain who our enemy is… who was when we met him for the first time… oh, what Howl did to him… and why he's in search of revenge.

Sophie: Calcifer calm down. Try to explain yourself.

Ben: Not now! Here on the roofs?

Sophie: Ben please, Layton has just passed, and no one can see us.

Calcifer begins to shrink in a flame more and more labile and takes a tearful look.

Markl: Is it something that happened before I arrived?

Calcifer: Yes, it happened shortly after we made the deal with Howl. Layton was a student of Suliman, older and stronger than Howl.

Witch of the Waste: Really difficult to imagine that little prince who remains in second place.

Calcifer: Obviously, the two were in constant competition, and after we came to upgrade Howl's magic, the imbalance caused Layton to get angry. He tried to find out what gave the new strength to Howl, and to do so he used his main weakness: he disguised himself as a woman and made him fall in love.

Sophie: Really disturbing, but appropriate.

Calcifer: When Layton tried to steal us, we discovered his disguise. Howl at that point freaked out of despair and closed Layton in a tiny box full of all the spirits he usually evokes.

Sophie: That's why the slime is equal to the one of his spell!

Calcifer: Exactly, Layton must have gone completely mad during his imprisonment, and somehow learned to control Howl's spell. So as soon as he freed himself he started to gather an army of depressed marionettes!

Ben: OK, now we know that the powerful sorcerer who decimated the city has the habit of dressing up; can we get to the refuge as soon as we can? You have no idea of the danger.

After they went down on the ground, Ben traces with his finger a symbol on a manhole inside a fountain, which opens on its own. Sophie reflects on the news;

Sophie: That's why he disappeared without saying anything, he did not want Suliman to know that he had exiled and drove his favorite student crazy years ago for a teenage quarrel!

Markl: After all these years, he continues to act on impulse. He certainly needed help to remedy this past mistake.

Ben informs them that Howl has helped them find the new hiding place, after which they dive into it.

When the team arrives at the den of the resistance, there are a dozen men and women in the central cave named square of the resistance. The crowd is rather downcast, but shows interest in newcomers. Yet no one comes near to speak, as everyone is busy.

♫ Score: cello [Moderato].

♫ Ambient sounds: light wind, noise of wheels of wooden wagons.

They arrive in the hideout where Sophie can talk to more survivors, as well as to team members.

☼ *The dialogues that Sophie can freely make with the different N.P.C. are boxed separately.*

Ben speaks with some survivors who welcome him.
♫ *Score: cello [Larghetto].*
♫ *Ambient sounds: light water flow, very light wind.*

Ben: Welcome to our house, I invite you to take a ride, while I do some business.

Near the entrance, Calcifer observes the small river that runs through the hiding place.
♫ *Sound effects: water flow.*

Calcifer: Did you see how it flew in the night? It seems very powerful, he gives me the heebie-jeebies! And he loses slime wherever he goes, like an infector.
Sophie: Yes, he is a fearsome adversary, and he gives me nausea. I hope that we will find Howl soon and defeat him.
Calcifer: Yes me too, this river is wet, all this cave is damp, we want to start as soon as possible!

On the small slope leading to the canteen, Markl is talking to an herbalist.

Markl: How many cheerful people in here, it seems that good humor is useful to increase their resistance to the slime!
Sophie: Then you must be really resistant!
Markl: Yeah, but I've always feared the blades of Layton's servants more than the mud!

Heen is in the form of a dog, and smells the ground by wandering around the square. When Sophie approaches him, he takes human form.
♫ *Sound effects: sniff, zoomer (Heen).*

Heen: Heen defeats Layton with the sword.
Sophie: It's still early to face Layton, we have to train! You still have to find many of your parts!
Heen: If Heen returns like the Heen uses to be, he is invincible!

Shortly before the learning of the dorms, a soldier sharpens his sword sitting on a bench.
♫ *Sound effects: iron on iron.*

Xaion the warrior: Welcome, I hope you can rest. There is always a great din here.
Sophie: Are you a soldier of the resistance?
Xaion the warrior: That's right, I'm Xaion, and I fight to free Radme.

In the shopping area, a rag asks alms. Nearby, an acrobat performs a little show. The only merchant at work looks like a receiver.
♫ *Ambient sounds: voices of people, some clashing of copper objects.*

Marion the smart: Do you come from outside Cal? Once I used to smuggle from an exit of the south gate, how did you get in?

Sophie: From the south gate, but we had many difficulties

Marion the smart: It becomes increasingly difficult to leave the city. If you meet Victor outside, could you give him this letter? From Marion.

Ektor the tightrope walker: I am Ektor, and I walk on ropes. Since no one pays a ticket to see my show, I do not have a place to stay. I try to make myself useful as I can. With Layton in the city it is impossible to move.

Sophie: Did you ever met him?

Ektor: Of course. Layton came to the circus outside the city, and destroyed everything, sowing desperation among the happiest people I know. Only a few of us managed to escape, only thanks to a sort of invulnerability to the mud.

Sophie: What do you mean?

Ektor: Me and the Clown have been struck by Layton's magic, but we seem to be invulnerable to the slime, probably thanks to our innate charisma!

Sophie: Thanks for the information, it could come in handy!

Zip the merchant thief: Hi adventurer, before leaving for the next adventure come to buy the from Zip!

Sophie: What do you sell?

Zip the merchant thief: All that is useful left in the city, if you need something that I do not have in store, I go out and I steal it only for you, my darling.

6 – Where The Witch of the Waste observes the orphan child.

Near the bridge that leads to the sewers, on the road to the meeting room, a small child has attracted the attention of the Witch of the Waste, that bothers him.

♫ *Sound clues: trumpet [Adagio].*

Witch of the Waste -*addressed to Orphan child*-: Look that beautiful child, just beautiful!

Sophie -*addressed to Witch of the Waste*-: But you were not already tired before arriving at the tavern? You should rest!

Witch of the Waste -*addressed to Orphan child*-: And what a heart! -*interrupting*- It is a big and noble heart!

Meanwhile, the Witch observes closely the child, who tries to wriggle, and finally manages to escape, when Ben interrupts the conversation.

Ben: What are you doing to the child? Stop that! He doesn't speak and doesn't like being the center of attention.

Ben -*addressed to Sophie*-: When you want, you can find me in the meeting room.

7 – Where Ben talks about the side-quests and the main mission in the meeting room.

▶ **The player can choose which answer Sophie can give.**

When Sophie come to talk to Ben, she is followed by all the other members of the team.

♫ *Score: military theme [Adagio].*

Ben: You met some members of the resistance. Many of them lost everything, their family members and everyone they knew fell victim to Layton's spell, and now they are fighting each other.

    1 **Sophie**: How can we help the resistance?

        Ben: Since Layton discovered us, we are short of weapons, while Layton has almost all the army with him. In addition we need food from outside the walls, and Layton knows almost all the accesses to the city; to communicate with the roaring hills we need a new road. Finally we know that a group of survivors is hidden at the port, in a house near the fish market.

        1.1   **Sophie**: I choose to steal weapons.

Ben: At the beginning of the fall of the city we attacked the armory frontally, but the resistance suffered severe defeats, and at the moment even you alone would be a better army.

Sophie: We will try to infiltrate.

Ben: Yes, you will have to leave the hiding place from the north exit, and follow the lanes always north until you reach the barracks, near the walls. There you will take possession of as many weapons as you can, and sabotage the pillars of the building with dynamite.

Calcifer: Where do we get dynamite?

Ben: You will find it there. Thank you so much for what you do!

Calcifer: It seems like a burning situation.

1.2   **Sophie**: I choose to explore the new road.

Ben: We will have to get to the walls from the east exit, reach the ancient passage in the walls and free it from obstacles, traps and monsters, to allow scouts to pass. You will be led by one of my most trusted soldiers who knows the ancient code to open the passage.

1.3   **Sophie:** What's about the people at the port?

Ben: I do not know how long they've been there, but Layton's soldiers have found them, and they do not have much time left.

2   **Sophie**: What's the latest news about Howl?

Ben: Six days ago, Howl saved the King from Layton's spell, and with him his loyal escort. Then he helped Beuron to organize the resistance, which I led in his stead while he was under the curse.

Markl: That was the night we spent at the fair in Portheaven!

Ben: The same night, however, Howl decided to leave, with an escort of five men given to him by the king, towards the marshes.

Sophie: Do you now what happen to them?

Ben: Howl was defeated, and the soldiers with him escorted to the castle, where they fell victim to Layton's spell.

Sophie: Well, at least we know where they are. We have to save them and ask them what they remember about the battle!

Ben: I like your ardor, but the castle is the most watched place in Cal, and it will not be easy to access it… we will have to study a plan. Come back to me when you are ready to decide how to act.

8 – Where they talk about the castle and the alchemist's guild in the meeting room.

Sophie and the others reach Ben and listen to the plan.

♫ *Score: military theme [Adagio].*

Ben: We will have to access the castle from the sewers, from there we can go out in the castle baths, which are exactly two floors below the throne room. There should be the soldiers we have to free, according to my informants.

Sophie: Does he keep them prisoners in the throne room?

Ben: No, their wills have been inhibited. Layton placed them there because they are the strongest of Beuron's soldiers, and he wants to protect the throne room.

Sophie: How do we get to the sewers?

Ben: The sewers of the city are built over the sewers of the precursors who once inhabited these lands. Layton controls the upper sewers, with horrible monsters, but we can go through the ancient ones. The secret access is here, in the resistance, but to cross it we will have to use the precursor's code.

1. **Sophie**: What is the precursor's code?

Ben: It is the key to opening the ancient portals. The only copy known to us is kept in the guild of alchemists. Go there and retrieve the code, then come back to me and I will show you the portal to access the canal that leads to the castle.

2. **Sophie**: What do you know about the precursors?

   Ben: They are the people who lived Radme centuries ago, they left many prodigious ruins at Radme. A magician can easily manipulate them even today, using the precursor code

3. (if asked about the precursor's code) **Sophie**: is the guild controlled by Layton?

   Ben: I don't believe. According to our latest information, it's protected by a powerful magic against Layton's monsters. I know the Master, he is very powerful and may seem like a bully, but actually he loves to write poetry.

9 – Where the team explore the uninhabited area of the base.

As they enter a room full of stone columns, they notice that many channels are dug in the floor.
♫ *Score: cello theme [Adagio].*
♫ *Sound clues: trumpet [Andantino].*

Calcifer: Look Sophie! On the roof! Those runic symbols with around those stone heads!

Sophie: Surely I can tell something to make it work!

If Sophie has already taken the precursor code

Sophie: To show the ladder we have to have water, the water flows if you tell her, finds her way if we show it.

Markl: So tell her to come out!

Sophie: Flow!

Water comes out of small holes in the walls.
♫ *Sound effects: water fast.*

Sophie: Now I have to tell the heads where to look to direct the flow of water.

When (after the puzzle with treasure) they arrive at the underground spring through the dark tunnels
♫ *Ambient sounds: water flow, light wind.*

Markl: Wooow this place is magnificent! I did not imagine that Cal was so full of water, seeing the desert that was there until now.

10 – Where the team meets the crazy alchemist.

The team leaves the base from the stairs leading to the fountain in the main square.
♫ *Ambient sounds: water flow, light wind.*

Calcifer: this idea of the entrance to the refuge in a fountain is absurd! Only Howl could be so reckless!

In the meantime it dries.
♫ *Ambient sounds: light wind.*

Sophie: do not make noise, or we'll lure Layton's monsters!

As soon as they enter the guild from a narrow passage, the team is wrapped in a thin fog, a laugh runs through the corridors and breaks the silence. The alchemist invites the team to overcome his enigmas.
♫ *Score: viola theme [Andantino].*
♫ *Sound effects: boots on wood (x2).*

Alchemist: Dear presents, welcome in my stronghold. Here I resist Layton while I find a cure for his illness, on myself. For now the experiments are proceeding with full success! On me the slime does not cause loss of will. However, hhahahhahahha, I still have not completely healed.

Sophie: Obviously he does not know that hot water is the only way to get rid of the slime, must get crazy trying to do it.

Calcifer: Yeah! It gives me creeps!

Markl -*worried*-: Maybe we should just tell him how to save himself!

Alchemist -*from outside the room*-: Only a thief with an acumen like mine can overcome my riddles, and enjoy the last treasures of the guild.

Markl: Heeeey alchemist! You need a hot bath to heal yourself, let us help you, we are Layton's enemies!

Alchemist: …

Sophie: Obviously he can not hear us, I believe that the voice reaches us through a spell… we will have to make our way to his room.

The team enters the guild hall.

♫ *Sound effects: boots on wood (x2).*

11 – Where they find the book and leave the guild.

They enter the alchemist's room and find it threatening, holding the ancient code to itself behind a counter full of alembics.

Heen -*growls*-.

Alchemist: Welcome, I must deduce that you have managed to overcome my enigma.

Sophie: Yes and it's time for you to give up, we do not want to hurt you.

Alchemist: You have not been sent by Layton?

Sophie: No, we are allies of King Beuron.

Alchemist: So you're not going to steal my soul?

Sophie: No, we only want the ancient code… but you're full of slime, why you are not a monster?

Alchemist: Endowed with a superfine mind, I did not get caught by the despair of the slime, and I found a solution that inhibits it. However I can not find a way to get rid of it. Injecting the solution is destroying my brain, but I still have not found how to get rid of this damn slime DEFINITIVELY.

Sophie: It's enough to wash for several hours in hot water, it has worked with the chief of the roaring Hills, it will work with you too.

The alchemist remains a moment petrified for the revelation, then drops the code and runs to prepare the bath in the next room. Sophie takes the book.

♫ *Sound effects: book on wood, boots on wood.*

Sophie: Good bathroom mister alchemist!

12 – (side-q1) Where they steal the weapons at the armory

When they reach the armory, the military camp is practically deserted. Everywhere there are traces of the clash between the soldiers of Beuron and those dominated by Layton, with large patches of green slime on the ground. The team hides just when the smith, covered with mud, comes out of the armory screaming in a voice distorted by mental control

♫ *Score: military theme [Adagio].*

♫ *Sound effects: scream (distorted), boots on soil.*

Blacksmith: I'm gOiNg to slEEp, do the guarD WELL!

And locks the door, tying it to the trousers.

Four guards are posted outside the dormitory.

♫ *Sound effects: door lock.*

Sophie: We can not make noise, we should infiltrate and steal the keys from the smith..

Markl: I could come in from that little hole, I'll be out in a moment!

Witch of the Waste: What a brave child!

Heen: Heen accompanies! Heen plush step!

Sophie: Sure Markl? If something happens, run away as fast as you can!

Markl: Brrrr let's hope that nothing happens…

13 – (side-q2) Where they discover a part of Heen at the port

When they arrive at the port area they follow the noise of Layton's soldiers, who try to break through the en-trance of a cellar. They can either fight them or look for a way to hide. In both cases inside the refuge they find the fisherman and his family.

♫ *Score: acoustic guitar theme [Adagio].*

♫ *Ambient sounds: wave noise, wind.*

Fisherman: Oh, you came to save us! We had no more hope!

Sophie: It's incredible that you resisted! How did you survive alone all this time?

Fisherman: years ago I bought this oar from a secondhand dealer, I discovered that it was magical, with it I can row like ten men! And it also works as a club!

Heen -*pointing*-: part of Heen!

Witch of the Waste: Hihi here's another one! I was just careless with my creations!

Fisherman: If you go along the road to the shelter of the resistance I will be happy to give it to you.

Sophie: We're here for this.

14 – Where they arrive with Ben at the ancient port of the sewers.

When they enter the resistance square they find Ben enthusiastic about their success

♫ *Score: cello [Moderato].*

Ben: Do you have the code?

Sophie: Yes!

Calcifer: It was guarded by a very dangerous madman, it's been much more difficult than expected.

Ben: The important thing is that now you are here, unharmed. Follow me!

Ben leads them into a tunnel dug by the resistance, and they reach a canal full of water. A large circular gate of heavy iron prevents them from continuing. Ben calls Sophie and shows her a page of the book.

♫ *Ambient sounds: water.*

Ben: I can't go on, I will create a diversion on the other side of the city to make sure there are not too many guards at the castle. Sophie, look at these pages, they contain a translation of the symbols of the ancient lan-guage. By deciphering the incisions you can open up passages built by precursors throughout Radme. Let's try to solve this portal together!

15 – Where the team passes through the dark sewers.

As they walk along the first channel of ancient sewers

♫ *Ambient sounds: water.*

Markl: I had no idea that there was a civilization before the current one in Radme. Judging by these structures it was quite advanced!

Witch of the Waste: It was, they were certainly more technologically advanced than the current inhabitants of Radme. Not to mention their mastery of magic, superior to the best wizards of Ingary. The legend tells that a natural disaster made them disappear.

Markl: And the current inhabitants?

Witch of the Waste: They are settlers, emigrated from our continent many years ago.

Getting in the Rat's nest, where 20 big mud-rats are hiding

♫ *Sound effects: almost silence.*

Sophie: Mmm it's too calm. I don't like it.

♫ *Sound effects: squeaks are heard louder and louder as they cross the room.*

Sophie: everyone! get ready to fight! they are surrounding us!

Crossing a pool of water

♫ *Sound effects: boots in water, stroke in water.*

Calcifer: This place is wet, we do not like it. We have the armor full of water.

Heen -*swimming like a dog-*: Uuuff uuuuuff!

Sophie: Resist Calcifer, we're almost there! Intensify the light!

In order to fill the water basins through a system of communicating pipes, to cross the sewers, Sophie must have an overview of the state of the basins. Calcifer flows in the form of a shooting star into some pipes and checks the status of adjacent basins.

♫ *Ambient sounds: water.*

♫ *Sound effects: fire of fire.*

Calcifer: The first basin is full! The second void and the one that we have to cross is half full!

Sophie: I try to ask the nearest dam to open! -*Sophie focus herself-* Near dam, open up!

One after the other the dams move allowing Sophie to solve the puzzles with the help of Calcifer, who observes the state of the communicating basins.

As they cross the modern floor of the sewers, they find themselves in a huge den of rats dominated by the mud.

♫ *Sound effects: iron on iron, water, fire of fire, squeak.*

Sophie: They're hundreds!

When they empty the last basin, a monster emerges, completely covered with mud.

♫ *Sound effects: plaintive roar.*

Sophie: This is incredibly ugly!

Calcifer: And it stinks!

Picture 20: Mud monster

Picture 21: Rat monster

16 – Where they come out of the sewers, in the baths of the castle, and in the gardens.

Calcifer is the first to get out of the sewers, and begins to shake awkwardly to let the water out of the joints of the armor. Immediately after Heen shakes off the hair and wet Calcifer again. While Calcifer complains, Sophie covers the visor of his helmet telling him to be silent. The Team is hiding in a locker room while in the central hall with the baths passes a platoon of patrol guards.

When they arrive in the gardens, both fountains are composed of precursor statues.

♫ *Score: cello [Larghetto].*

♫ *Ambient sounds: water, wind.*

♫ *Sound effects: water, dog shaking, iron on iron.*

Calcifer: Sophie, what's written?

Sophie: I am translating, it seems that this garden was formerly intended for the cultivation of a species of plants that require so much water. The fountains are activated by adjusting the pressure of the valves at the ends of the garden!

Calcifer: Tell me when a river of water is about to explode, I would like to be away from here.

17 – Where (opt) they decide to save civilians in prisons.

Once in the prisons there are about twenty people.

♫ *Score: military theme [Adagio].*

♫ *Ambient sounds: boots on wood, voices of people.*

Sophie: And who would you be? Soldiers?

A clown with extremely sad makeup, sitting in the center of the largest cell rises and, moving in an absurdly theatrical way, responds.

♫ *Sound effects: boots on wood.*

Clown: We are the immunes! The magic of slime has no effect on us. If we had a little bit of mud to prove it I would not fear to be the tester! Hahaha. We are in love and happy and positive with everyone. Layton instead hates us, because we are proof of his incompleteness. He can not even get the better of a poor clown, jester happy.

Sophie: We will find a way to free you, you would be excellent allies for the resistance. Layton's kingdom must end!

In the prison, Sophie can speak with the released prisoners.

☼ *The dialogues that Sophie can freely make with the different N.P.C. are boxed separately.*

Clown: After escaping from an assault on the traveling circus, Ektor the tightrope walker and I get shelter in a poor hostel. That were the first times of the King's illness, and we were all afraid. When one day they came looking for us, I managed to save Ektor, at least.

Sophie: Ektor is safe! You'll meet him at the den of the resistance!

Clown: What a wonderful news, I can not wait!

Ron the poet: They took me together with the clown, in the miserable hostel in the city. When they discovered they could not use us, they left us to rot. I have not eaten for days!

Sophie: I should have some crackers.

Ron the poet: Oh my benefactress and liberator!

Zelda the good: I take care of the needy as I can.

Sophie: Are you an herbalist?

Zelda the good: Yes, and not only, I studied medicine from a master, I will be able to help you.

Vlad the Barbarian: I come from a distant land, where I was a bear knight. Since I joined the army of Beuron as a mercenary, I never imagined that there would be a desertion. Now I find myself here without even understanding why.

Sophie: Now that you are free you could serve again, for our cause.

18 – Where they come to the throne room, where they defeat the soldiers.

Once in the throne room they fight with the soldiers, who seem to be waiting for them standing forever. After the fight Sophie notes that their armor is dirty with mud from the marsh.

♫ *Score: medieval theme [Vivacissimo].*

♫ *Sound effects: boot on wood, iron on iron.*

Picture 22: Throne room

Sophie: They wear the same armor of the night when Howl disappeared, they come from the swamp. But what have they been doing all this time? Can Layton keep them here waiting for death? They keep staring the void! It's a monster.

Meanwhile Markl Heen and Calcifer move the bodies stunned towards the baths with the pools.

♫ *Score: medieval theme [Larghetto].*

Markl: Give us a hand to free them, they are very heavy.

19 – Where Calcifer heats up the baths to save the soldiers.

Sophie and her friends have opened the water channels and the water basin inside the boiler is full.

♫ *Score: cello theme [Larghetto].*

♫ *Sound effects: water.*

Sophie: Calcifer, now it's up to you to heat up.

Calcifer: But we will need wood. A pool does not heat itself. Surely around here we will find it in abundance.

Recovered the wood and accumulated in a pile under the boiler Calcifer blaze.

♫ *Sound effects: wood on wood, crackling fire.*

Calcifer: We hate to heat water, it's a stupid task. We are made to cross planets!

Sophie: Calcifer, think that you're saving so many lives and solving a war! Plus you're saving Howl!

Calcifer: Certainly certain.

Witch of the Waste: What a nice little fire, a huge little fire!

The heated water is drained into the baths, where the unconscious soldiers begin to return human.

♫ *Sound effects: water.*

♫ *Ambient sounds: voices of people.*

While the defeated soldiers take a bath in the therms you can talk to some of them.

☼ *The dialogues that Sophie can freely make with the different N.P.C. are boxed separately.*

Soldier1: Mmm, finally I'm fine, I've never been better!

Soldier2: It's like being born again, now I can remember my name!

Soldier3 -*distraught*-: Slime everywhere, it's like bringing the swamp inside.

Soldier4: I drank the water in which you are bathing us, and now I am terribly hungry.

20 – Where they talk to the soldiers and Ben invites them to join the king.

In the rebel shelter

♫ *Score: military theme [Adagio].*

Ben: Welcome back! As I am pleased to see you come back with my brothers! The diversion that we created on the other side of the city cost us many wounded, we need new levers!

Sophie: Unfortunately they are all practically fainted, we will have to wait until they wake up…

Ben -*turning to the doctor*-: Bring me salts, we must act quickly, who knows what Layton is doing to Howl right now.

After using the salts on the guards.

♫ *Ambient sounds: voices of people.*

Ben: Hello soldiers, welcome back, do you remember me?

Soldier1: Ben! You're safe and sound! Where are we?

Soldier2: What happened to us?

Soldier3: I remember we were fighting at the swamp, an army of Layton henchmen.

Soldier2: Howl and Layton fought over our heads.

Soldier4: I remember a deafening sound. Then howl fell into the river that runs through the swamp to Cal.

Soldier1: I remember too, even though I was too busy fighting to be able to see well.

Soldier4: Layton shone with a very strong light, I remember him, screaming that he could win any mage.

Sophie: So Howl fell into the river?

Soldier4: Yes, and unfortunately, I think he was drowning.

Ben: The rapids of the river are terrible. Layton must have made him lose his senses and then let him die in the water. If he arrived at Cal's dam we would have seen him. I left a guard to watch it.

Sophie and the team exchange looks of despair.

Calcifer: Could it not be somewhere along the river? Maybe with a head injury, or in a coma!

Ben: Maybe, but I recommend you to go and get help from King Beuron, before proceeding to the swamps. He will certainly give you all the support he can to facilitate your journey.

Sophie: I do not know Ben, this news upsets us, we would like to investigate along the river.

Ben: We will take care of the river *(if the player has completed at least one side-quest)*: "thanks to your help" - we can engage several men in the search. It is essential, however, that the king suggests to you how to act with Layton, before he becomes powerful enough to destroy everything!

Sophie: okay, but at least promise me to send a pigeon to the king's fortress tomorrow, to update me on the search.

Ben: I will do it. Now you have to leave, and we will have to increase the defenses of the shelter.

Calcifer: see you soon, I hope!

Before leaving the shelter they can talk to some soldiers for more information on the battle, with members of the resistance and with the team members.

☼ *The dialogues that Sophie can freely make with the different N.P.C. are boxed separately.*

Soldier1: Howl fought well. For a moment, I thought we would win.

Sophie: But have you seen what happened to Howl before he fells?

Soldier1: No. I was too worried about staring at the blade that was trying to hit me.

Soldier2: I hope he is still alive, Simon has fallen into the rapid, and I myself have heard the sound of his head striking the boulders.

Sophie: Really heartening.

Calcifer does not speak.

Markl: I can not believe it, it's not true. It can not be, Howl would not let himself be defeated like that.

21 – Where they reach the walls talking about Howl.

♫ *Score: Persian theme [Larghetto].*
♫ *Ambient sounds: wind.*

Markl: Do you think that he's really drowned?

Calcifer -*worried*-: We really do not believe it. There should be an indissoluble bond between us. I'm sure if he was dying we would be the first to know it. What absurdity, Howl dead.

Sophie: Do not be afraid, Calcifer, he's fine, I'm sure too. We just have to hurry up to find him, before all these people are destroyed by Layton's madness.

Calcifer: We are not afraid, we are really sure to have a link with Howl, if he feels bad we would know it.

18 - Fights pre-analysis

The rules follow the first edition of D&D.

These stats are calculated supposing that the player will reach the Level 6: Cal, with team, at level 5.

The analysis try to consider the cost of spells in terms of Mps and the loss of HP to balance the difficulty and rewards.

Stats

Main characters stats for level 6: Cal

	Sophie	**Calcifer**	**Markl**	**Heen**	**Wow**
Class	Magic-user	Elf	Magic-user	Warrior	Old Cleric
Level	5/6	5/6	5/6	5/6	5/6
Strength	8	15/16	7	18	12
Constitution	13/14	16	11	17/18	13
Dexterity	14	12	16	10	12
Intelligence	18	13	17/18	6	14
Wisdom	14	14	12	10	15/16
Charisma	16	18	14	8	10
HP	24/+5	40/+6	20/+4	48/+11	24/+5
Mps	32/+6	20/+4	25/+5	5/+1	28/+5
AC	8	6	7	7	9
TAC0	17/15	17	17/15	17	17/15

AC= 9 - Bonus Dexterity

Heen starts with leather armor and with a club (1d4).

Calcifer starts with the mail chain and with iron glows (1d6).

Team's speed on game map: 8 km/h.

Enemies stats for level 6: Cal

	Civil	**Soldier**	**Mud-Spam-mer**	**Rat**	**Mud-Monster**	**Elite soldier**
Strength	+0	+1	+1	+0	+3	+2
Speed on map	5/8 km/h	5 km/h	5 km/h	10 km/h	2 km/h	7 km/h
HP	10	32	30	14	100	40
AC	9	7	7	5	7	7
TAC0	17	16	14	15	13	14
Dice type	1d4	1d6	1d6	2d4	1d12	1d8

Fights in Level 6 – Cal

Map	Room	Enemies	Damage[1] to T.[2]	Damage[1] of T.[3]	DPT (T., E.) / HP E.	DPT (E., T.) / HP T.	Diffi-culty[4]	HP loss[5]
Tavern	Main Room	15 civil	19.5	25.8	0.172	0.125	0.047	0.726
Armory	Entrance	3 soldier	9	24.57	0.255	0.057	0.198	0.223
Armory	Corridor	2 soldier	6	24.57	0.383	0.038	0.345	0.099
Armory	Forge	2 soldier	6	24.57	0.383	0.038	0.345	0.099
Sewers	Rat's nest	20 rats	31	23.35	0.083	0.198	-0.115	2.38
Sewers	Large basin	1 mud monster	34.2[6]	24.57	0.245	0.219	0.026	0.893
Prison	Entrance	1 soldier	3	24.57	0.767	0.019	0.748	0.024
Prison	Guard post 1	3 soldier, 1 mud spammer	12.35	24.57	0.195	0.079	0.116	0.405
Prison	Guard post 2	3 soldier, 1 mud spammer	12.35	24.57	0.195	0.079	0.116	0.405
Prison	Guard post 3	4 soldier, 1 mud spammer	15.70	24.57	0.155	0.100	0.055	0.645
Prison	Torture chamber	2 soldier	6	24.57	0.383	0.038	0.345	0.099
Castle	Room 3 right	1 soldier	3	24.57	0.766	0.019	0.747	0.024
Castle	Room 3 left	2 mud spammer	6.70	24.57	0.409	0.042	0.367	0.102
Castle	Room 8	4 soldier	12	24.57	0.191	0.076	0.115	0.397
Castle	Room 9	1 mud spammer	3.35	24.57	0.819	0.021	0.798	0.025
Castle	Room 17	1 soldier, 1 mud spammer	6.35	24.57	0.396	0.040	0.356	0.101
Castle	Room 15	2 soldier, 2 mud spammer	12.70	24.57	0.198	0.081	0.117	0.409
Castle	Room 13	2 soldier, 1 mud spammer	6.35	24.57	0.261	0.040	0.221	0.154
Castle	Room 16	6 elite soldier	30.6	24.57	0.102	0.196	-0.094	1.921

Legend:

- T.: team
- E.: enemies

---

1 $$DPT(Team1, Team2) = \sum_{i=1}^{k} \left(E[Dmg_i] \cdot \frac{1}{h} \sum_{j=1}^{h} P(1 d 20 > THAC0_i - CA_j) \right)$$

Where k is the number of combatants (Team1) attacking while h is the number of possible targets on defense (Team2). Critical and weak attack are balanced having equal probabilities (1÷20) and inverse effects.

2 Sum of the average damage of the enemies multiplied by the probabilities of hitting the different team members (20% to hit each individual member).

3 Sum of the average damage of the team characters multiplied by their respective probabilities of hitting the different types of enemies. The damages of those who use magic are calculated with arcane missiles, and they are sure to hit. However it is estimated that such characters can not use magic in every turn.

4 $$\frac{DPT(Team, Enemies)}{HP_{enemies}} - \frac{DPT(Enemies, Team)}{HP_{Team}} \quad \begin{matrix} . < 0 \, the \, team \, is \, at \, a \, disadvantage \\ . > 0 \, the \, team \, have \, the \, advantage \end{matrix}$$ the duration d of a battle

in terms of turns is $$d = \frac{1}{\frac{DPT(Team, Enemies)}{HP_{enemies}}}$$

5 The duration in terms of turns of a battle d can be used to calculate the amount of life lost by the team in the fight, multiplying it for DPT(Enemies, Team)/HP(team). For example in the first fight the team suffers 0.125 / 0.172 = 0.729. Remember that if the ratio is 1 the team has lost all the hp. For the most difficult fights (as for the elite soldiers) the ratio becomes even bigger than 2. This is due to the fact that these statistics always consider an average damage, and not the extreme cases in which the team, attacking with the whole arsenal, multiplies its damage (as said in the following Strategy chapter). The purpose of these statistics is above all balancing the quantity of items on the map and highlighting the most delicate moments of the level from a strategic point of view.

6 The mud monster tries to hit all the members of the team each turn (inflicts 6,84 to each).

Strategy

Sophie, Calcifer and Markl at level 5 have acquired powerful area spells, such as the fireball. This spell allows you to quickly resolve clashes with many enemies in tight spaces, but consumes a lot of MPs, forcing the player to use it wisely.

In the nest of rats in the sewers, the rats have a saving throw of 13 on the spells, and are distributed so that they can be hit by 1 to 8 at the same time, suppose it hits an average of 4.5. This means that a level 5 fireball can inflict:

$$(\frac{3.5 \times 5 \times P(1d20>13)}{2} + 3.5 \times 5 \times P(1d20<13)) \times 4.5 = (3+11.375) \times 4.5 = 64.68$$

By inflicting 14.375 per rat we can say that the average damage of a fireballs kills any rat it targets. 4 fireballs could solve the most challenging match of the level. Using the average attack the team would be so disadvantaged to be defeated twice! (HP loss = 2.38)

In clashes like the one with the Mud monster, each team member is targeted at the same time by the physical attack or magic of a single enemy. In these cases, the saving spells on the spells of the characters, based on their level (5/6), are 15/12 for the magic users and 14 for the fighters. Physical attack damage is 34.2 on average based on the team's CA and thac0 on the Mud monster, which attacks the party with a d12. Its strongest attack is mud-spamming magic (1d20) which inflicts the following damage to a level 5 team:

$$(\frac{10.5 \times P(1d20 \geq 15)}{2} + 10.5 \times P(1d20<15)) \times 3 + (\frac{10.5 \times P(1d20 \geq 14)}{2} + 10.5 \times P(1d20<14)) \times 2 = 26.562$$

to the magic users + 17.85 to the fighters, 44.312 total.

In some clashes, like the final one in the castle with the six elite soldiers, it is possible that the damage is focused on a single weak character. This could rapidly lead to his defeat. In just one turn, with the rest of the team healthy, you can completely restore the health of any character just defeated: 1 phoenix tail, 2 healing potions and a cure magic are 3d10 + 3 + 5d6 + 5 = 19.5 + 22.5 = 42 Hps.

In the statistics it is estimated that Sophie attacks 75% of the rounds, Markl the 60 and the Wow the 40%, this because they know powerful defensive spells, or they have to save the mana or use a potion.

19 - Maps of level 6 - Cal

The city of Cal is built on a plateau, has a circular shape and is surrounded by walls. The east citadel (not shown on the map) allows to enter the city from the east entrance and the two secret doors (1 & 5). The city is divided into four quadrants: the castle to the north-east, the port to the south-east, the market to the north-west, and the boroughs to the south-west. The sewers run underground.

ID	Description
1	Secret entrance
2	Tavern
3	Resistance base
4	Guild of alchemists
5	Secret entrance
6	Barracks
7	Port
8	Market
9	Sewers entrance
10	Castle
■	Market
■	Quest
■	Pavement
■	Building
■	Street
■	Wall
■	Water
■	Not explorable
■	Green
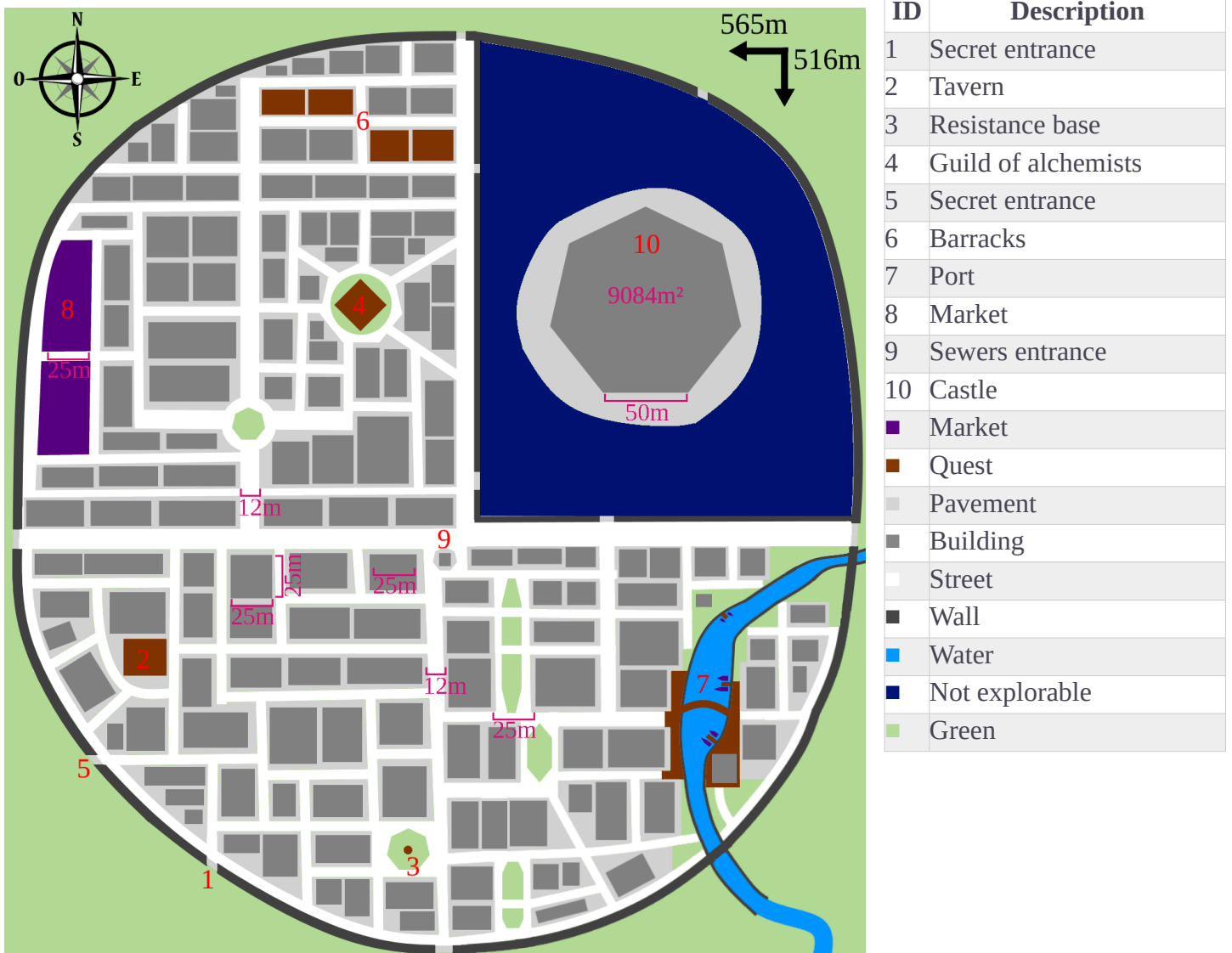
Picture 23: City map

Lights

The city is lit by various torches placed along the streets spreading radial light that excludes the possibility of having dark corners.

The light used in the torches is RGBA(255, 238, 153, 0.6) ■.

While the places of the missions have different colors to focus the player's attention:

- Guild: RGBA(100, 140, 255, 0.6) ■
- Barrack RGBA(255, 215, 150, 0.6) ■
- Port RGBA(255, 180, 150, 0.6) ■
- Fountain RGBA(200, 255, 150, 0.6) ■

Explorable shops with findable objects

Some buildings in the city have explorable areas accessible from the road. They are abandoned shops since despair took possession of the city. They are recognizable because they have a semi-open entrance door. Within these stores you can find rewards, with the exception of a workshop that contains a tool for a character. For this reason all the shops have a standard structure, but the decorations and interior furnishings vary to be consistent with the object that the player will find inside.

There are 12 shops in the city and in each of these there is one and only one reward:

- 1 of exotic and special clothes:
    - Drop MC (Markl) in the NO sector.
- 3 are small bookshops:
    - Books on ancient civilization (one shop per sector).
- 2 are tool shops:
    - Ancient civilization tools (in SO and SE).
- 3 are pottery shops:
    - Pot, vase and ancient civilization bowl (one shop per sector).
- 1 is an arms shop:
    - Old ancient civilization weapon (sector NO).
- 2 are collectibles shops:
    - Ancient currency (SE sector).
    - Ancient parchment (SO sector).

Abandoned shops

Outside the walls

Outside the walls there is the east citadel. It is a stronghold built along an uphill path that leads to the walls on the Cal plateau.

East citadel

From the external citadel the player can reach the east entrance, the secret door 1 and the secret door 2.

There is an iron gate that blocks the road to the east entrance, but can be opened later by concluding a secondary mission. There is a reward on the roof of tunnel 17, you can get there by jumping from the panorama.
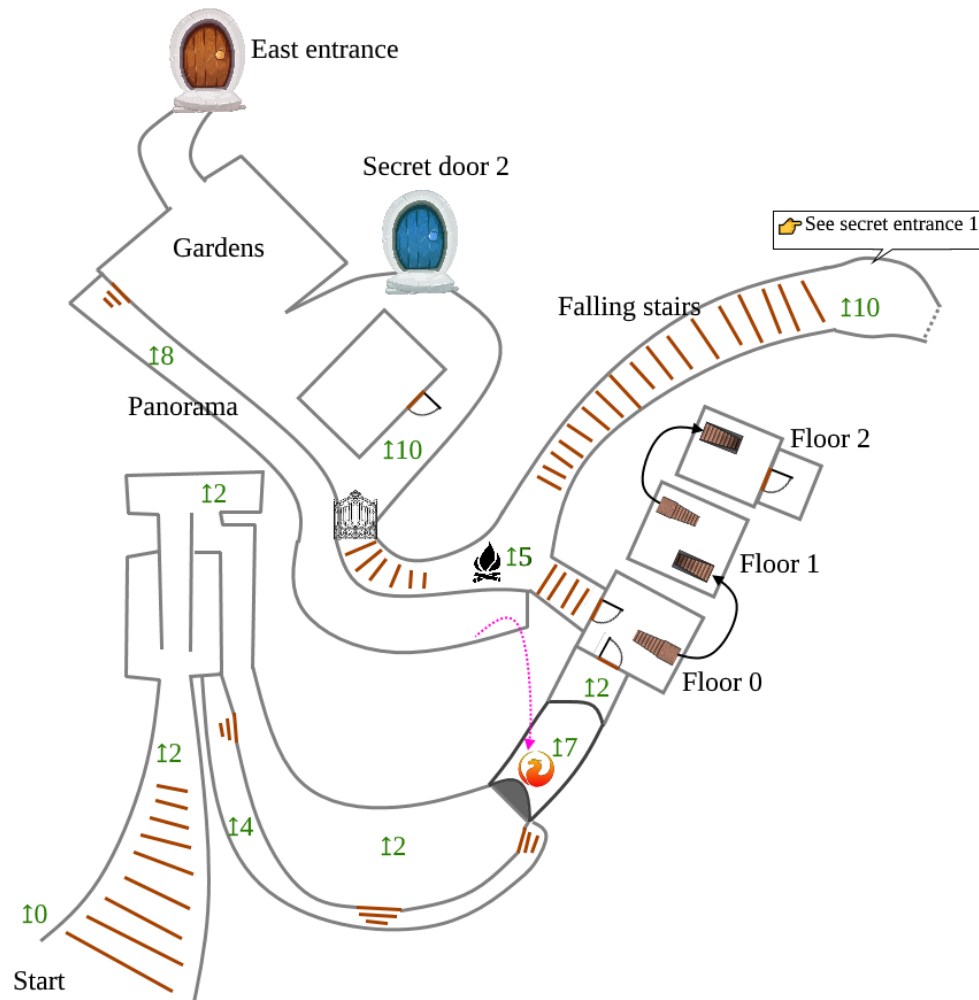
ID	Description
⚱	Checkpoint
🔥	Phoenix tail
♫1	Score: Persian theme [Larghetto]. Ambient sounds: wind, rustling of grass, a few crickets.
♫2	Boots on pavement
♫3	Boots on wood
♫4	Door open/close

Picture 24: Citadel

The secret entrance 1

The passage in the walls was built by the precursors, and is abandoned since their disappearance. From it the team access a small building built within the walls. From the first floor the passage leads to an exit on the city.

There are however other rooms that can be explored: it is possible, through a narrow staircase, to access the basement formed by a corridor from which you arrive in several small rooms, all connected to each other and used as warehouses for useful objects guards in case of attacks.

On the other hand, if you go south from the entrance you can see a narrow road that leads to a small three-storey tower at the top of which there is an open space where a giant crossbow is anchored and a half-folded bulwark is exposed.

If you want to access the city just go up the stairs in the north corner of the entrance hall that lead to the walls from which you can get down taking advantage of the many stalls on the sides of the road.
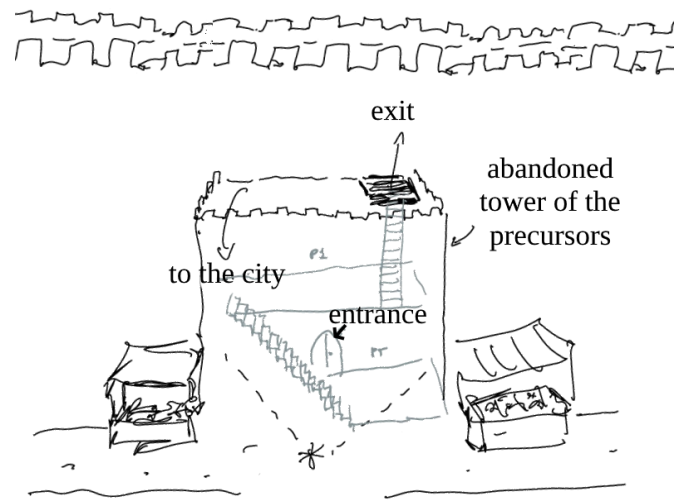
Picture 25: Detail
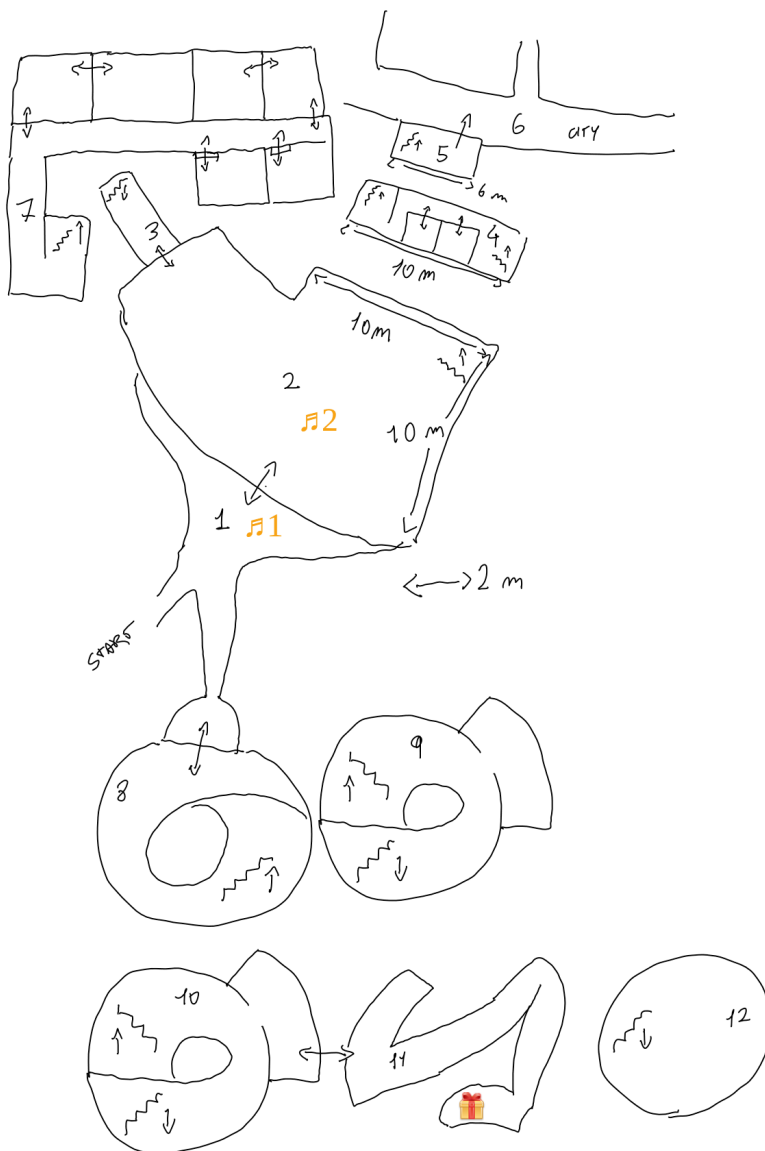
Picture 26: Tower

ID	Description
1	Outside walls (0F)
2	Entrance of the abandoned tower (0F)
3	Bricked up room (0F)
4	Shelter (1F)
5	Tower roof (2F)
6	Road of the walls (0F)
7	Void under the walls (-1F)
8	Entrance (0F)
9	First floor (1F)
10	Second floor (2F)
11	Tree path (2F)
12	External tower roof (3F)
🎁	Reward
♫1	Score: Persian theme [Larghetto]. Ambient sounds: wind, rustling of grass, a few crickets.
♫2	Ambient sounds: very light wind.

Ancient puzzle

To cross the secret entrance, and access position 2 from 1, it is necessary to solve an ancient puzzle.

There are 4 concentric circumferences that can be rotated, and 4 quadrants. The goal for the player is to rotate the circumferences and obtain quadrants with all different symbols inside them. In the pictures we used number to simplify the explanation.

Puzzle prop.	Value
AVG duration	3 min
Difficulty	2/10
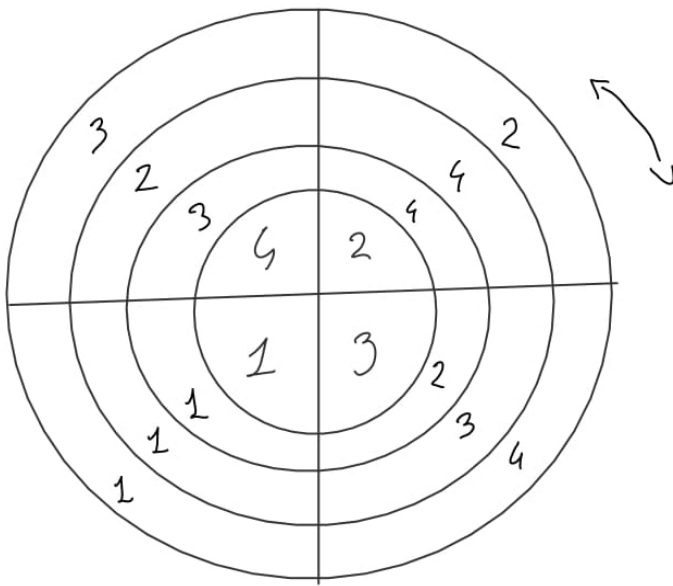
Picture 27: Ancient puzzle 1
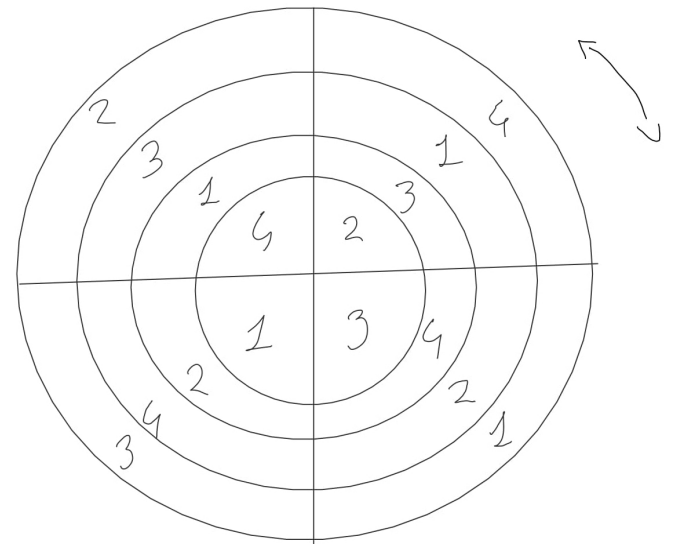
Picture 28: Solution

Boroughs area

Picture 29: Map of the boroughs

ID	Description
1	Secret entrance
2	Tavern
3	Resistance base
5	Secret entrance
■ (blue)	Main path for mission
■ (black)	Path for exploration's rewards
♫1	Score: Persian theme [Larghetto]. Ambient sounds: wind, rustling of grass, a few crickets.
♫2	Sound clues: Egyptian trumpet.
♫3	Ambient sounds: voices of people, noise of wheels of wooden wagons, some clashing of copper objects.
♫4	Score: Persian theme [Andante]. Ambient sounds: medium wind, noise of wheels of wooden wagons, some clashing of copper objects.

The tavern

The tavern is a small two-storey building. The ground floor is divided into three rooms: a living room, where there are a counter, tables and chairs, from which you can access to the kitchen and the closet. Also in the living room there are stairs that allow you to go upstairs. The first floor consists of a central corridor that allows you to reach the bedrooms that are on the right and on the left of the corridor. At the end of the corridor there is a window overlooking the roof.

Lights

When the player arrives at the tavern it's night. The tavern is dark and is lit only by the rays of the moon that pass through the windows. The light serves to give the player the idea of the space that surrounds him but the figures of furniture and enemies are mixed in the darkness. To clarify the player must use the spell of light. When he uses the enemies near the tables, screaming, they attack him. If he does not illuminate the environment and starts moving inside, as soon as he approaches an enemy he is attacked with frightful screams from the enemy. The corridor of the upper floor is very illuminated by the light of the moon passing through the large window. This light also illuminates the stairs and is visible from the lower floor. This is important because it serves to indicate to the player what is the escape route when many enemies begin to arrive. In fact it is from that side that Ben arrives to save them.

ID	Description
♫1	Score: military music [Vivace].
	Sound effects: zoomer (Heen), door open, noise of wood on wood, thick liquid that boils, fire that crackles.
♫2	Sound effects: boots on wood (x3).
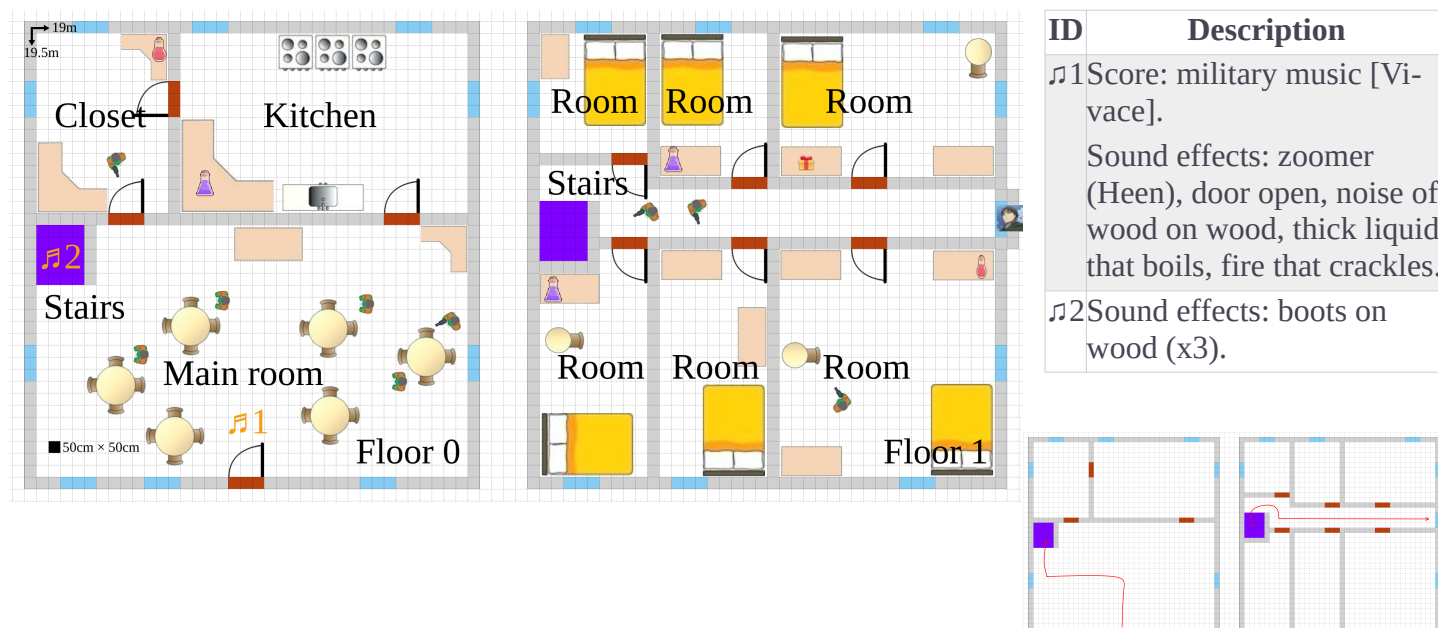
Picture 30: Main path

Fights

Room	Enemies	Damage to T.	Damage of T.	DPT (T., E.) / HP E.	DPT (E., T.) / HP T.	Difficulty	HP loss
Main Room	15 civil	19.5	25.8	0.172	0.125	0.047	0.726

In this first battle the enemies are weak but numerous. Without area attacks the clash may not have a quick conclusion, and the team could get hurt.

Escape on the roofs

After Ben's arrival, the team has to escape from the tavern and it uses the roofs of the buildings as an escape route to get the new resistance base. The arrows indicate the possible routes along the roofs.
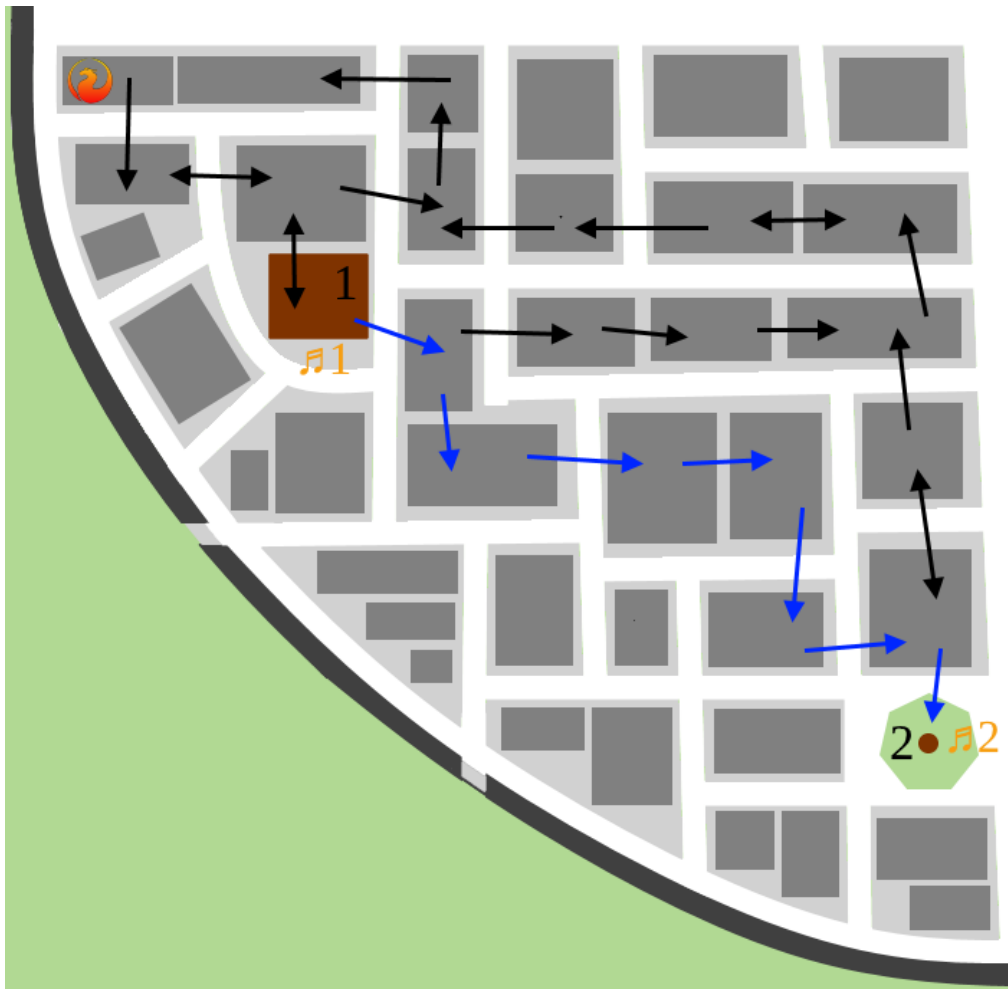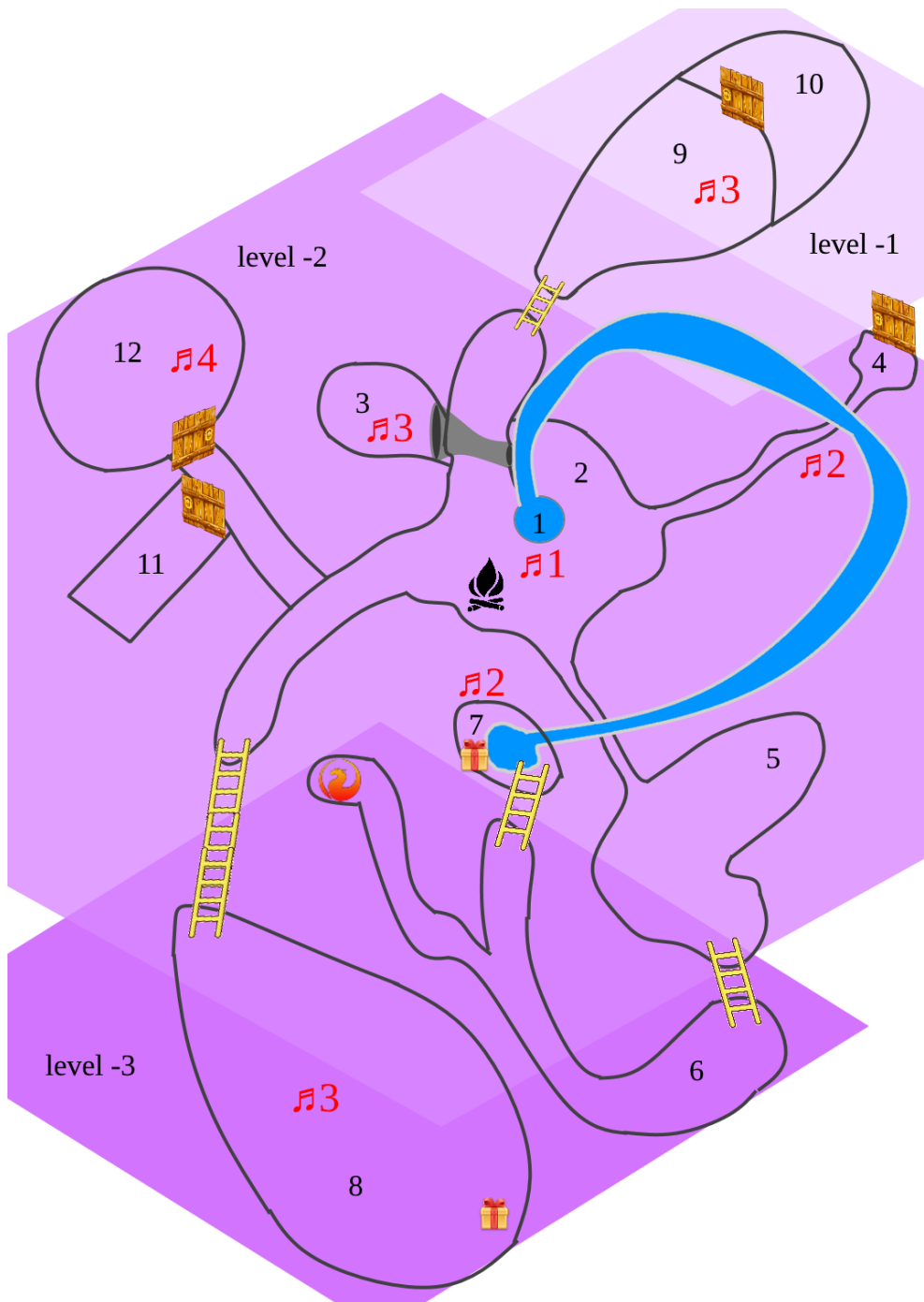

ID	Description
1	Starting point (Tavern)
2	Arriving point (Resistance's base)
■	Main path for mission
■	Path for exploration's rewards
⟳	Phoenix tail
♫1	Score: Persian theme [Andante]. Ambient sounds: medium wind, noise of wheels of wooden wagons, some clashing of copper objects.
♫2	Score: cello [Larghetto]. Ambient sounds: light water flow, very light wind.

Picture 31: Possible paths on the roofs of the boroughs

The base of the resistance

Through a passage in the precursor fountain you can enter the square of the resistance. At the center of it a hole in the ground covered by a grating allows the drain of the water of the fountain and the water of a small stream, which runs through the cave. The square is flanked by an ascent leading to the gallery of kitchens. Under the ascent, crossing a bridge and passing a small tunnel, you enter the shop area. Always from the square it is possible to access the old entrance of the sewers, to a disused dark and flooded area, and finally to the corridor that leads to the dormitory and the meeting room, preceded by Ben's room.

Picture 32: Base of the rebels

ID	Description
1	Fountain entrance (0F)
2	Square of resistance (-2F)
3	Shop (-2F)
4	Ancient entrance to the sewers (-2F)
5	Water reservoir (-2F)
6	Dark tunnel (-3F)
7	Subterranean source (-2F)
8	Dorms (-3F)
9	Canteen (-1F)
10	Kitchens (-1F)
11	Ben's room (-2F)
12	Board room (-2F)
♨	Checkpoint
🎁	Reward
🔥	Phoenix tail
♫1	Score: cello [Larghetto]. Ambient sounds: light water flow, very light wind.
♫2	Sound effects: water flow.
♫3	Ambient sounds: voices of people, some clashing of copper objects.
♫4	Score: military theme [Adagio].
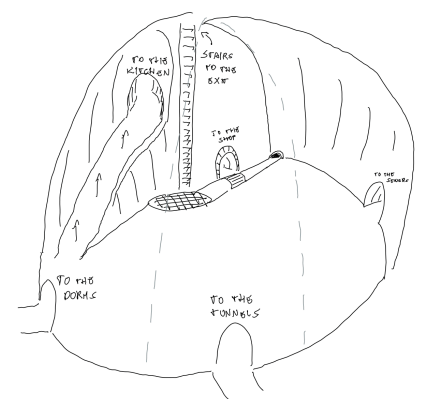
Picture 33: Square of the resistance
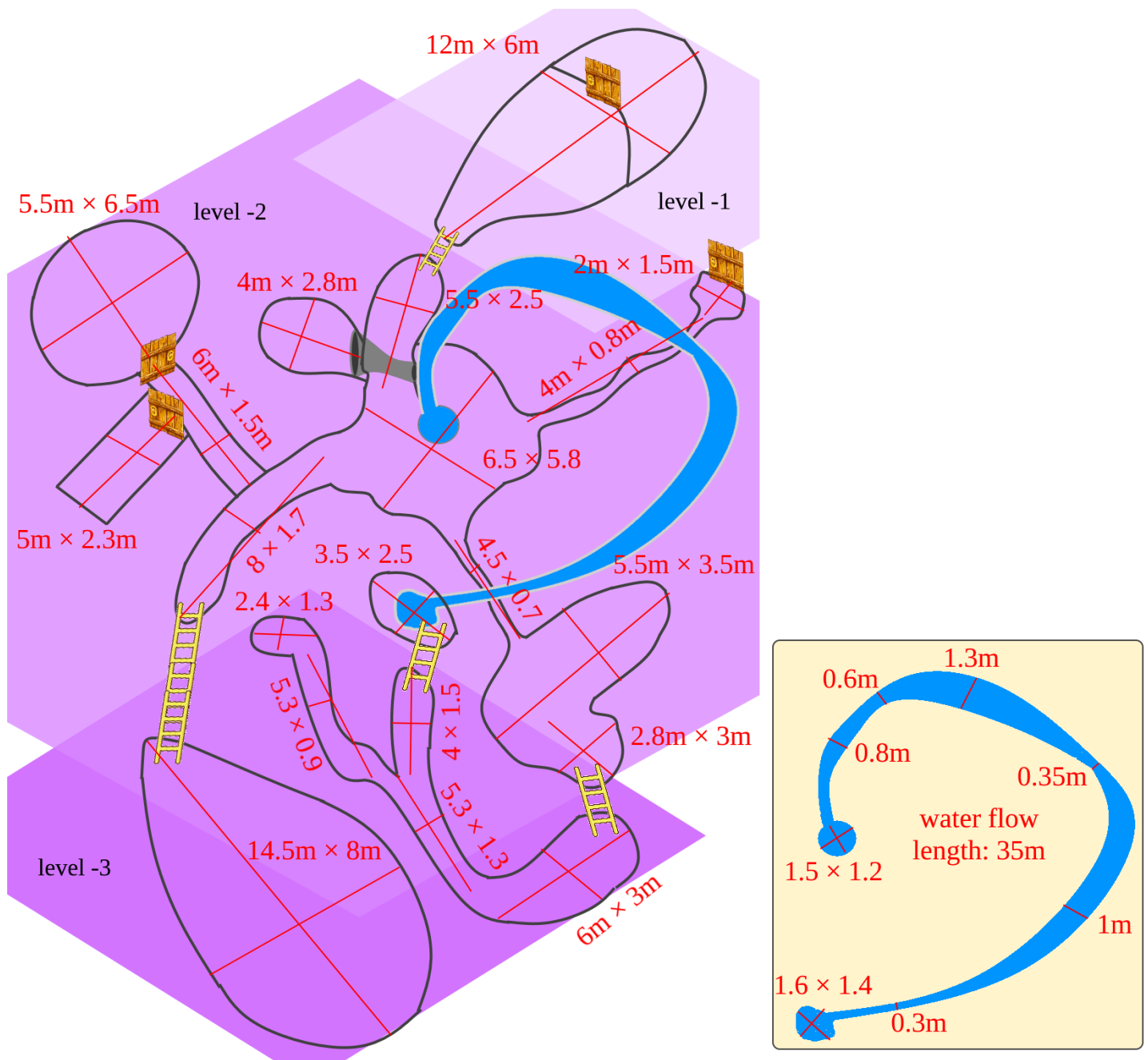
Picture 34: Base of the rebels with size legend

Ancient Puzzle

To access the sewers you need to solve a puzzle. The purpose of the puzzle, as Ben explains to Sophie using the alchemist's book, is to draw (starting from any corner he chooses and ending to any other corner) a line that can not cross with itself, along the channels surrounding the symbols. In this way the player must make sure to en-close five times all the symbols, without repetitions, each time inside the same perimeter (considering the line he draws and the borders of the puzzle).
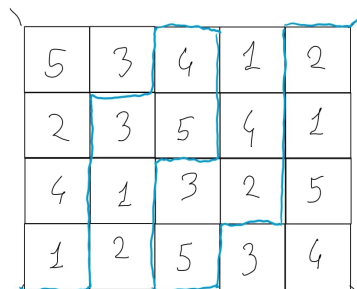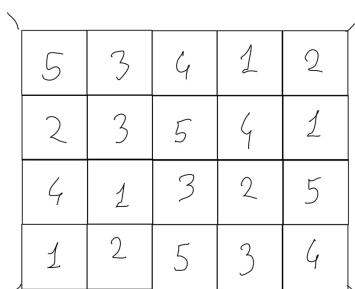
Picture 35: Sewer access puzzle

Picture 36: Solution

Puzzle prop.	Value
AVG duration	8 min
Difficulty	6/10

The secret door 2

From the boroughs of the city it is possible to access an abandoned building near the walls, which hides the second secret entrance of the city. The player must enter the building and get to the first floor. There it's possible to notice a ladder outside the window that allows the access to a blind space between the back of the building and the walls. Solving the ancient puzzle of the door the player returns to the east citadel.
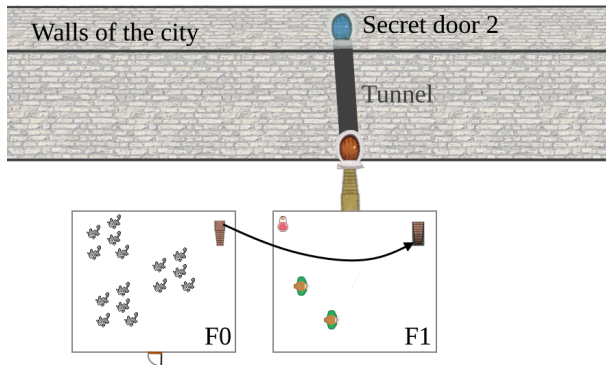
ID	Description
F0	Floor 0
F1	Floor 1
	Health potion
	Rat
	Civilian

Picture 37: The abandoned house that gives access to the secret door 2

Fights

The fight with 15 rats is one of the most dangerous of the level, and its described in the chapter "Fights pre-analysis". Requires area attacks and a big MP loss.

Room	Enemies	Damage to T.	Damage of T.	DPT (T., E.) / HP E.	DPT (E., T.) / HP T.	Difficulty	HP loss
Rat's nest	15 rats	23.25	23.35	0.11	0.148	-0.038	1.345

Ancient puzzle

To access to from Cal to the east citadel you need to solve the ancient puzzle 2.

There are 5 concentric circumferences that can be rotated, and 5 quadrants. The goal for the player is to rotate the circumferences and obtain quadrants with all different symbols inside them. In the pictures we used number to simplify the explanation.
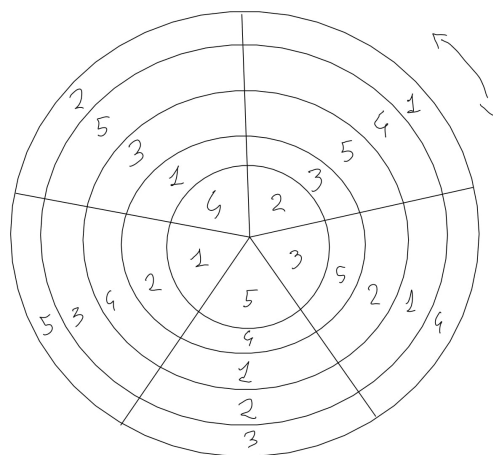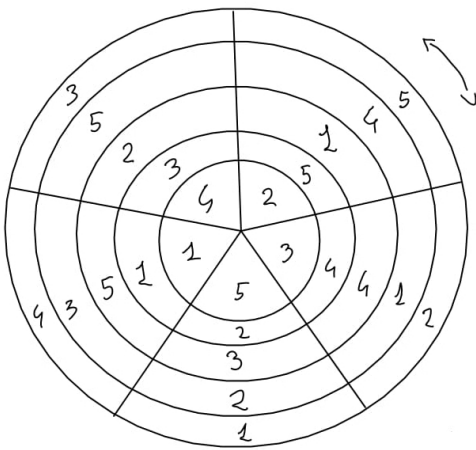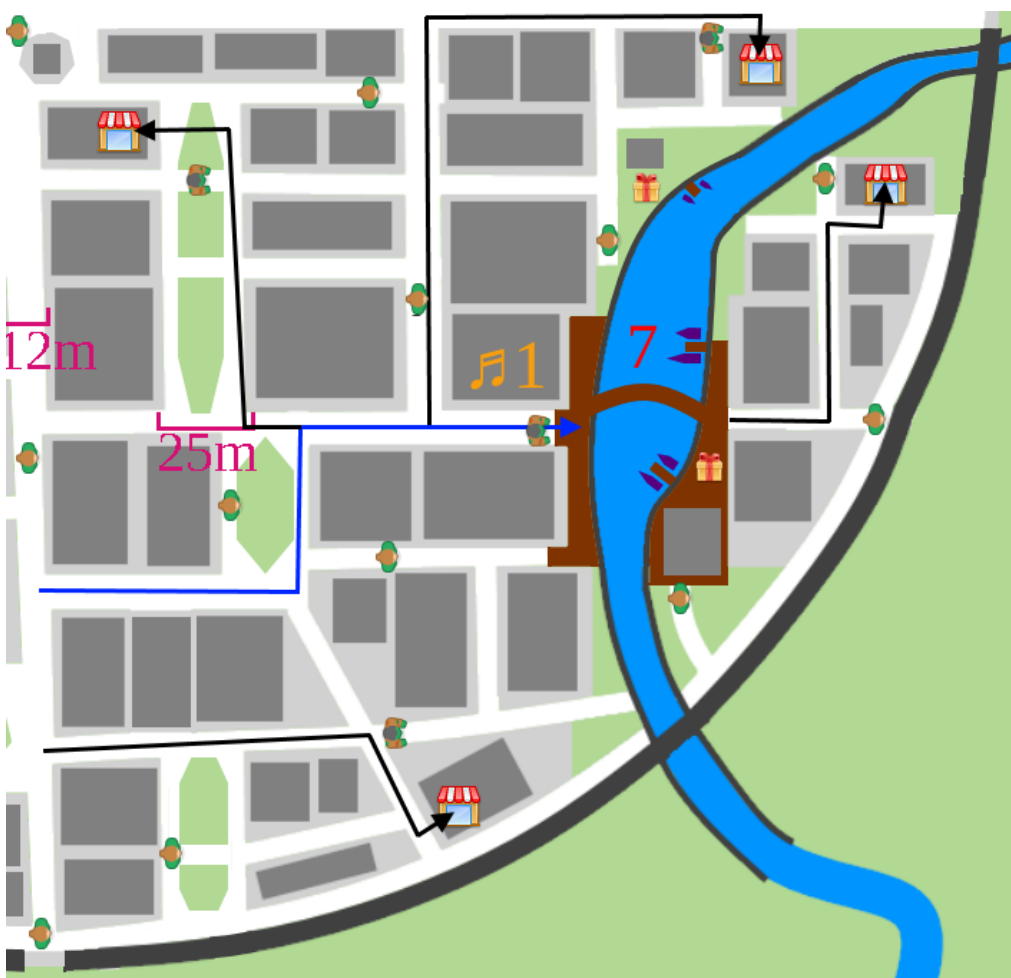

Puzzle prop.	Value
AVG duration	8 min
Difficulty	4/10

Picture 38: Ancient puzzle 2

Picture 39: Solution

Port area

Here the player meets the fisherman and his family near the boat, as a secondary mission that Ben gives to him. The team will need to predict the movement of the enemies to save them and gain the special reward for Heen.

ID	Description
![Civilian]	Civilian
![Enemy]	Enemy
![Shop]	Shop
![Reward]	Reward
7	Port
■	Main path for mission
■	Path for exploration's rewards
♫1	Score: acoustic guitar theme [Adagio]. Ambient sounds: wave noise, wind.

Picture 40: Map of the port

The port

The port is an environment composed of seven macro areas. The first is a simple lawn, from this you can go to the fish market, a modest area where there are many stalls selling everything that the river offers.

Continuing along the river to the south you enter the owner's shop, a medium-sized room where you can buy goods that are processed by the largest boat of Cal.

Next to it is the shipyard, a large work area where ships are brought ashore and adjusted, or where new boats take shape. Opposite the building site is the quay with anchored ships.

Along the river there is also a bridge that you can cross to get to the east of the port where there is the shop of the Fisherman and his house.

1. Park
2. Fish market
3. Shipowner's shop
4. Shipyard
5. Moored ship
6. Fisherman's shop
7. Houses
8. Bridge
9. River
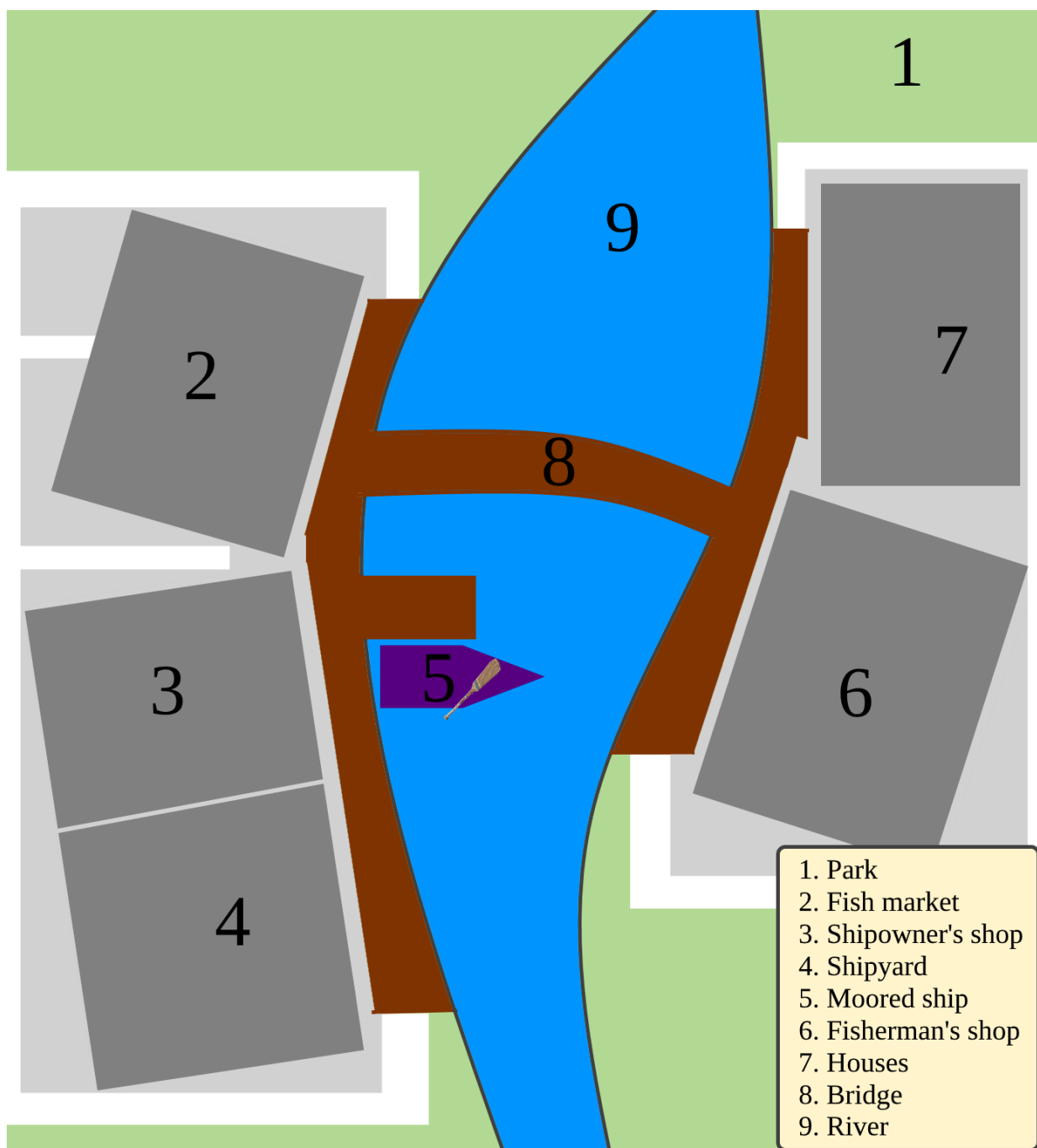
Picture 41: Map of the port

Market area

Moving on the map require attention for the player: being discovered by an enemy triggers an alarm that forces the player to escape due to numerical inferiority.

Picture 42: Map of the Market

ID	Description
4	Guild of alchemists
6	Barrack
8	Market
🏚	Closed path by resistance
🧑	Enemy
🏪	Shop
🧒	Reward for Markl
▪	Main path for mission
■	Path for exploration's rewards
♫1	Ambient sounds: voices of people, noise of wheels of wooden wagons, some clashing of copper objects.
♫2	Ambient sounds: voices of people
♫3	Score: viola theme [Andantino].
♫4	Score: military theme [Adagio].
♫5	Score: military theme [Adagio]. Sound effects: scream (distorted), boots on soil.
♫6	Ambient sounds: water flow, light wind.

The barrack

The barrack is the place where one of the two side-quests takes place to help the resistance. It consists of four buildings, only two of which are accessible and useful for the purpose of the mission. These buildings are the armory, where the team has to steal the equipment, and the dormitory, where they have to sneak in to get the key that allows access to the armory.
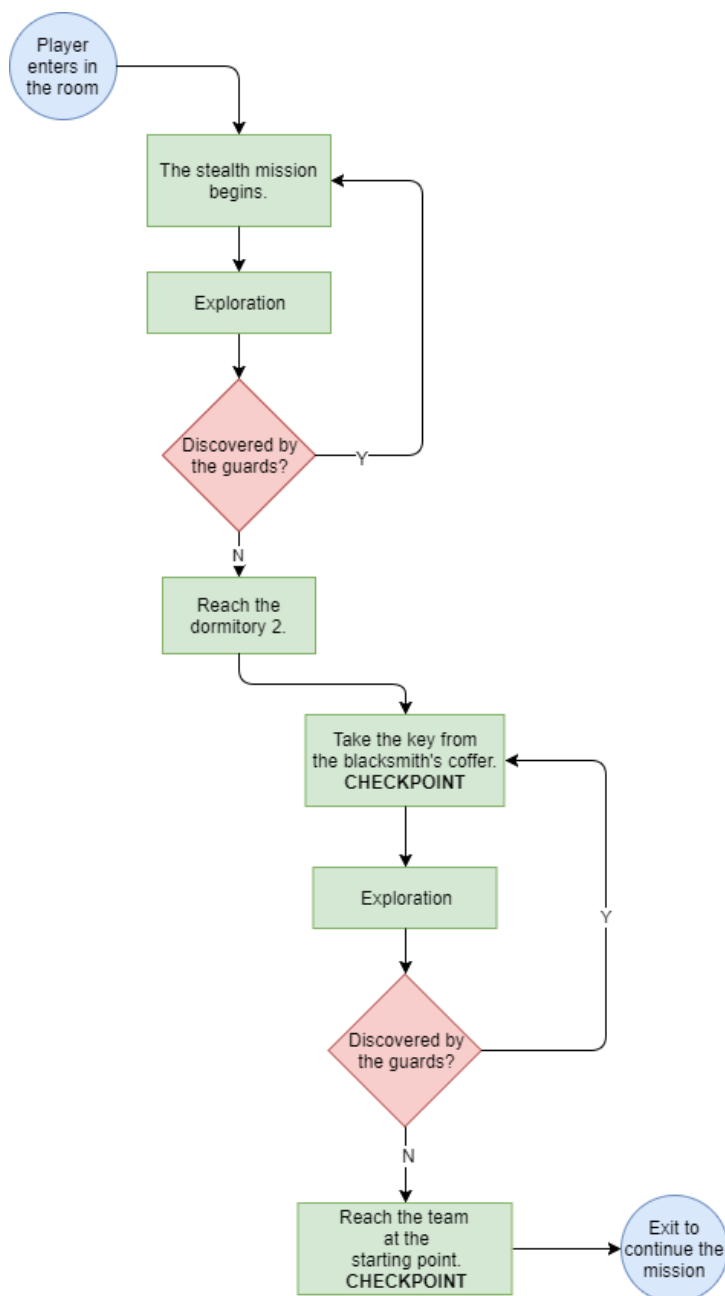
Barrack's dormitory

The barrack's dormitory is a multi-story building, although only the ground floor is accessible. This is accessible by three doors: one to the north which is closed and two to the south open. The south door on the left allows access to a corridor connected to the two dorms: the larger one with two entrances that is freely accessible and the smaller one accessible only from the living room because the door on the left corridor is closed.

Even the south door on the right allows access to a corridor that, if crossed, allows you to get into the training room on the right, which has two entrances open, and to the large hall. The hall is very roomy with a large table in the middle. In the upper right corner there are stairs to access to the upper floor but they are closed.

Lights

The level is poorly lit. The only sources of light are the lanterns kept by the guards that control the building. The light produced by the lanterns is not very strong and the light illuminates only a small conical area in front of the guard. For this reason the guards can see only what is part of the cone of light.
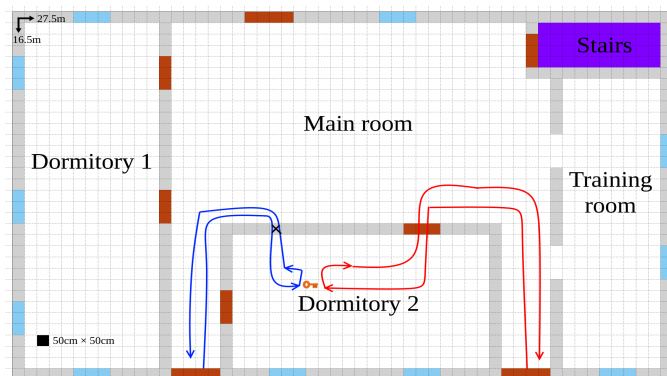

Picture 43: Barrack's flow-chart
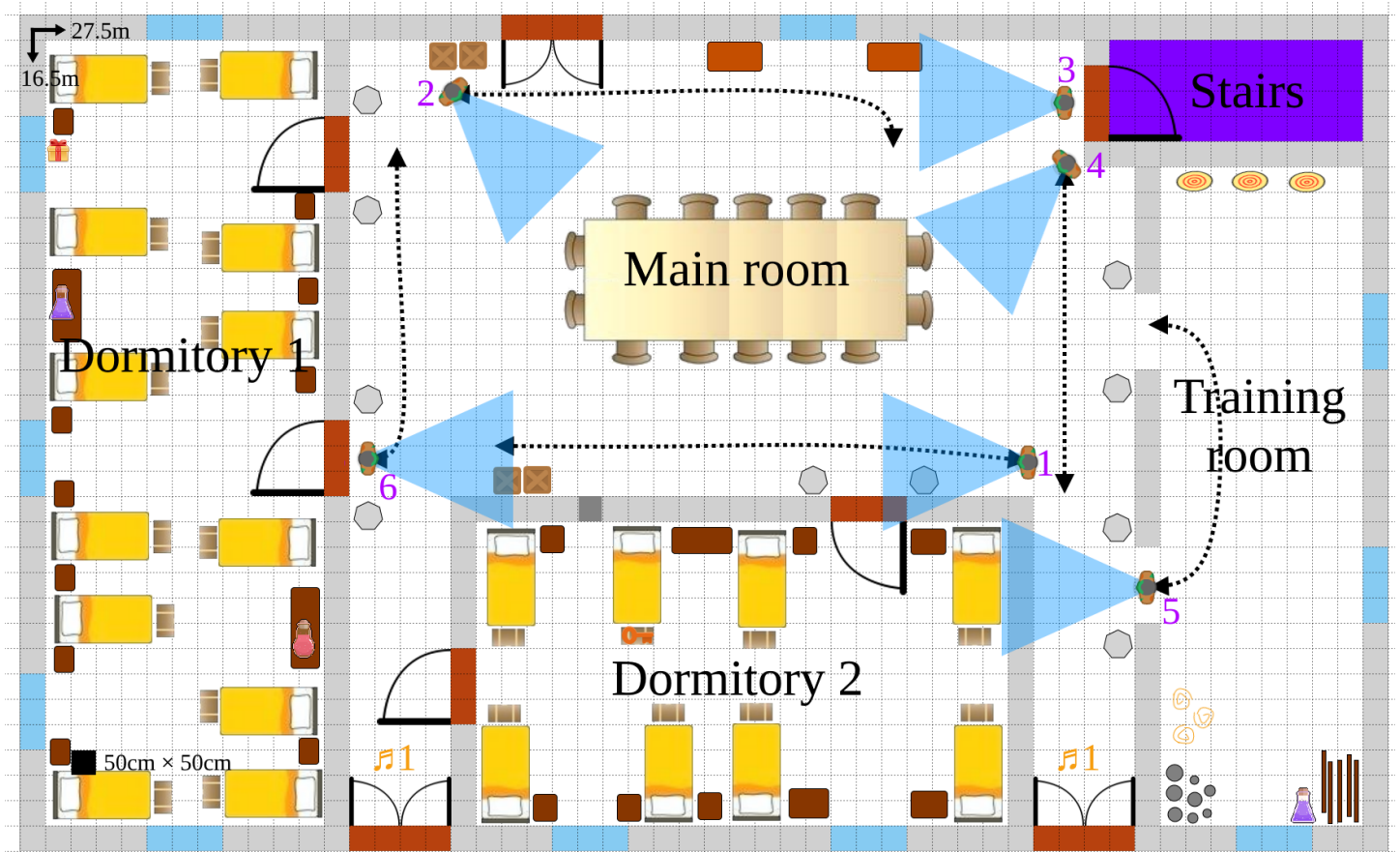
Picture 44: Map of the barrack

Picture 45: Paths

Stealth mission

The player must enter the barracks dormitory in the military quarter in order to complete the resistance side quest. This is necessary because he has to steal the arsenal's key from the blacksmith who is sleeping in the dormitory 2. From the building can be accessed by two doors, one on the right and one on the left. Just inside, a stealth mission begins that can only be conducted with Markl. In fact, the player must be able to go unnoticed to the rooms avoiding being caught by soldiers who are patrolling the salon. Not to be seen, the player: must not be in the cone of light guard produced by the lanterns that they use to see in the dark, being night, and must not walk too close to them, in fact if it will be too close the guards will hear the noise produced from his steps and they will capture him. When the player is seen the mission starts again from the entrance to the building. The only checkpoint present is the room where the blacksmith sleeps, in fact once reached it will start again from there if you will be discovered while trying to get back from the team that is waiting by the entrance of the barracks. To be able to go further unnoticed Markl can hide behind the objects present as statues, walls and chests.

There are six soldiers on the ground floor: one standing in front of the stairs leading to the upper floor and the other five that move inside the room with assigned paths. In particular, if the player enters from the entrance to the left, he must pay attention to the soldiers E1 and E6 patrolling the area in which Markl must pass to reach the secret passage to enter the room. Otherwise if you arrive from the right door you have to pay attention to the soldiers E1, E5 and E4 that patrol the area.

Some data relevant to the mission:

- Movement speed of the soldiers: 5 km/h
- Soldier E5: time to reach the other point of his journey: $13\,m \rightarrow 9.8\,s$
- Soldier E4: time to reach the other point of his journey: $9\,m \rightarrow 6.8\,s$
- Soldier E1: time to reach the other point of his journey: $13.5\,m \rightarrow 10.17\,s$
- Soldier E6: time to reach the other point of his journey: $9\,m \rightarrow 6.8\,s$
- Markl's movement speed: 8 km/h

Soldiers have two positions during patrolling:

- The alpha position that is the initial position of each soldier in which they are found when entering the building.
- The beta position is the other position where a soldier stops during patrolling.

When the soldiers are in alpha they must reach beta. On the contrary when soldiers are in beta they must reach alpha.

The soldiers have been synchronized so that the player can not find too short paths and immediately overcome the mission. In particular, the movement of the soldiers begins when Markl approaches or to the statue near E6 or the statue near E5. From that moment begins the "stop" time in which the soldiers remain in their positions for 4 seconds (this time is triggered when all the soldiers have reached their destination position). After these seconds the soldiers start their rounds but not all at the same time. In fact, the soldiers will leave at intervals of time that changes depending on whether they are in alpha or beta position and that also depend on the other soldiers:

- The E4 soldier when he has to go from alpha to beta (so in his path from top to bottom) starts to move 2 seconds before the others.
- The E6 soldier when he has to go from alpha to beta (so in his path from bottom to top) starts moving 2 seconds after E1 started from his alpha position.
- The E1 soldier when he has to go from beta to alpha (so in his path from left to right) starts to move 2.5 seconds before the others.

Barrack's Armory

The armory is a large building consisting of four large rooms. A large entrance that can be accessed from the south door, and from which you can go up, in the barn, where there are the enclosures where the horses are placed. From the stable you can go out into the city through a door (which is closed) or you can access a very large room that is used by the blacksmith to work. From the work room you can go to the storage area where the weapons and armor are located. To do this you need to open the locked door.

Lights

The mission takes place at night like the one in the barracks (the two maps are part of the same side-quest). Armory rooms are well lit with torches on the walls so as to make all the elements visible. Torches make a modest light so there are about 2 in each room. Even the light of the moon helps to illuminate the rooms. If some corners remain dimly lit it is not a problem. Important is that, in the storage armor, the chest with the objects to be taken to complete the mission and the one containing the Calcifer enhancement are well lit.
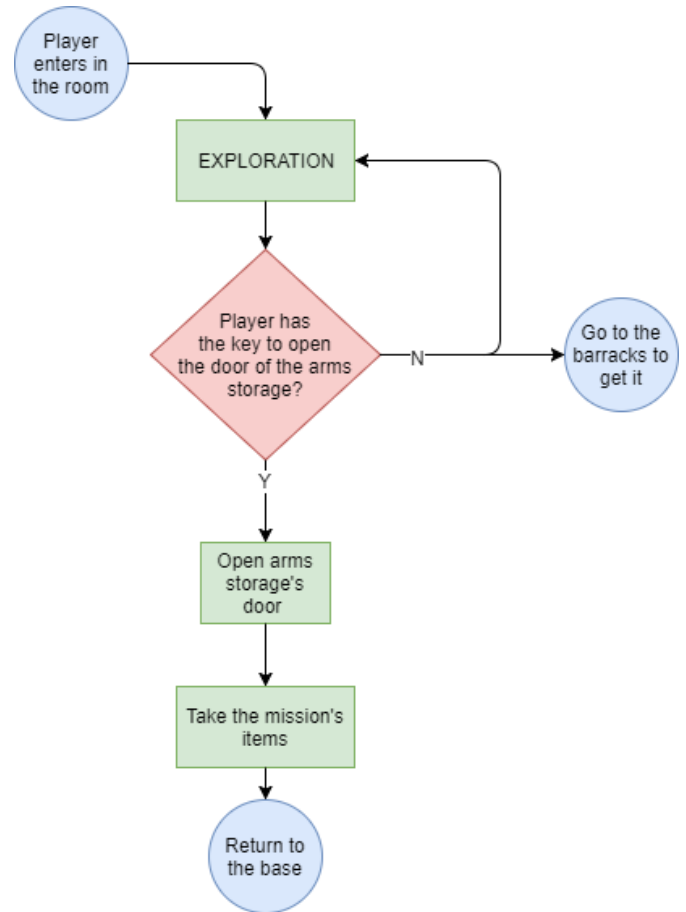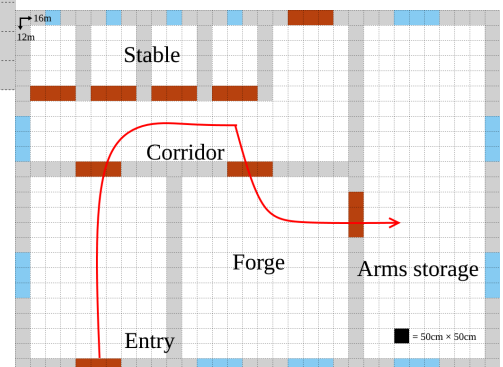

Picture 46: Armory's flow-chart
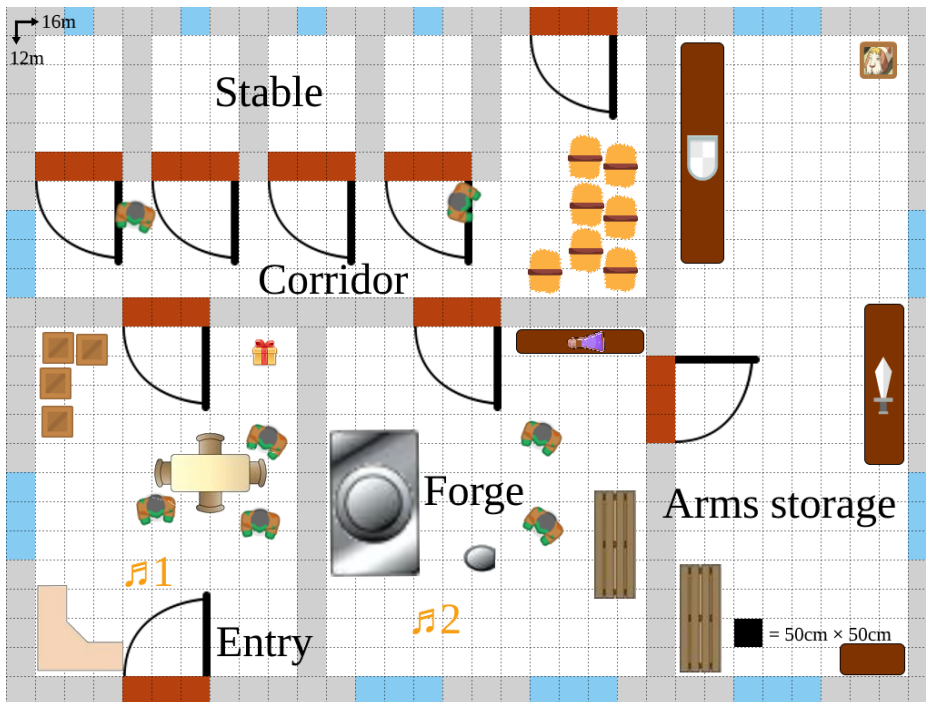
Picture 47: Armory

ID	Description
	Enemy
	Sword
	Shield
	Mana potion
	Reward
	Reward for Heen
♬1	Score: military theme [Adagio]. Ambient sounds: boots on wood.
♬2	Ambient sounds: iron on iron.

Picture 48: Main path

Fights

Room	Enemies	Damage to T.	Damage of T.	DPT (T., E.) / HP E.	DPT (E., T.) / HP T.	Difficulty	HP loss
Entrance	3 soldier	9	24.57	0.255	0.057	0.198	0.223
Corridor	2 soldier	6	24.57	0.383	0.038	0.345	0.099
Forge	2 soldier	6	24.57	0.383	0.038	0.345	0.099

The alchemist's guild

The alchemist's guild is based in the city's tower. Here the team will have to recover the book of the ancient language. There are two puzzles to solve:

1. Recovering the right ampoules to prepare a magic potion; this will serve to open the glass door located on the ground floor that protects the book.
2. Pulling, in the right sequence, a group of three levers, which move libraries, located on the top floor, in order to recover a useful ampoule.

Audio design

For the guild there is only one score theme for all the 3 floor.

Score: viola theme [Andantino].

Sound effects: boots on wood (x1, x2), wood on wood, teleport sfx, iron on iron, water boiling, glass on glass, magic elevation, padlock opening.
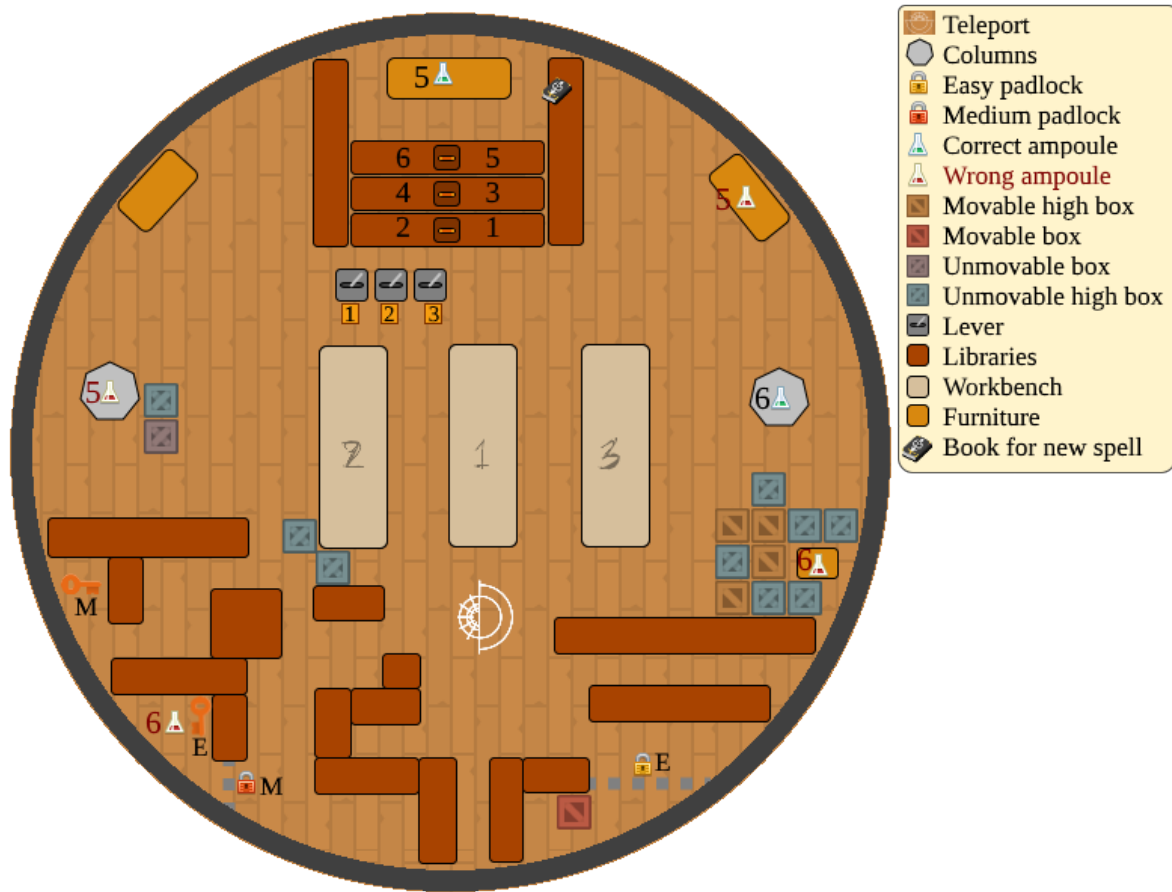
Lights

The guild is a very enlightened environment. The light is emanated from crystals placed along the wall that illuminate the whole floor. The crystals are present in all three floors of the tower.
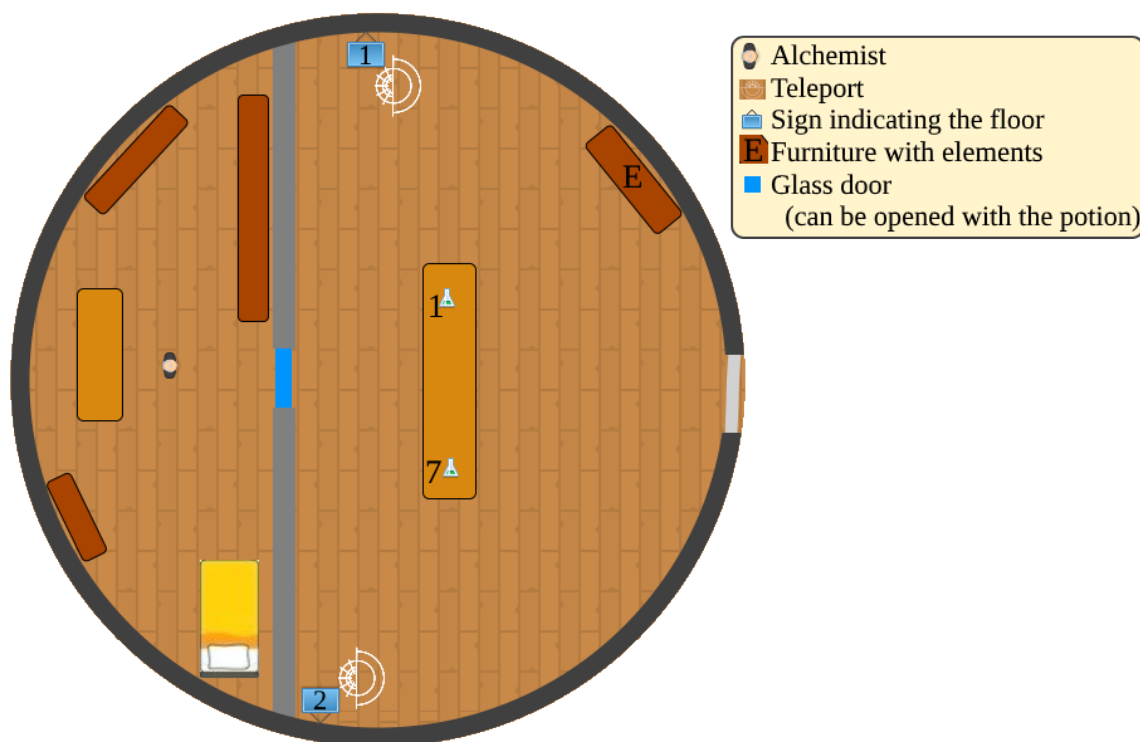
Picture 49: Floor 0

Picture 50: Floor 1

Picture 51: Floor 2

Alchemist's puzzles

The mini-games that the player must overcome to collect objects on the two floors are multiple and increase in difficulty in the highest floor of the tower. The typologies are:

- Break locks to open doors, exploiting the talent of Markl
- Move crates that block the road and use them as riser to reach objects placed on top of some columns through the power of Sophie to command objects
- Finally be able to find the right combination with which to activate three levers to move libraries correctly to be able to open a path. The combination is visible in the room, it is up to the player to understand that the numbers he finds on the work tables in the room are the combinations of the levers.

Stills puzzle

In the ground floor the player will find a large work table with two instruments placed at the ends of the desk, which will serve as starting and as ending points for the whole sequence of stills. Under the places where the objects should be placed is written a proper number to indicate the position and the number of missing structures. The players will have to find in the two floors of the tower the other four instruments necessary to complete the experiment. Each category of objects consists of: one right object and two wrong ones.

Objects in the same category are located in the same plane. The player will be helped by the recipe of the potion, which is on the workbench on the ground floor, which he will say, in the form of poetry or wordplay, what exactly are the useful tools recalling their shape. To take the objects the player has to overcome different mini-game.

But it's not all. Indeed to create the potion also serve 3 different elements that the player must choose exactly from a cupboard, which is located in the ground floor, containing several bottles always helping themselves with the recipe.

Picture 52: Stills

Picture 53: Completed puzzle
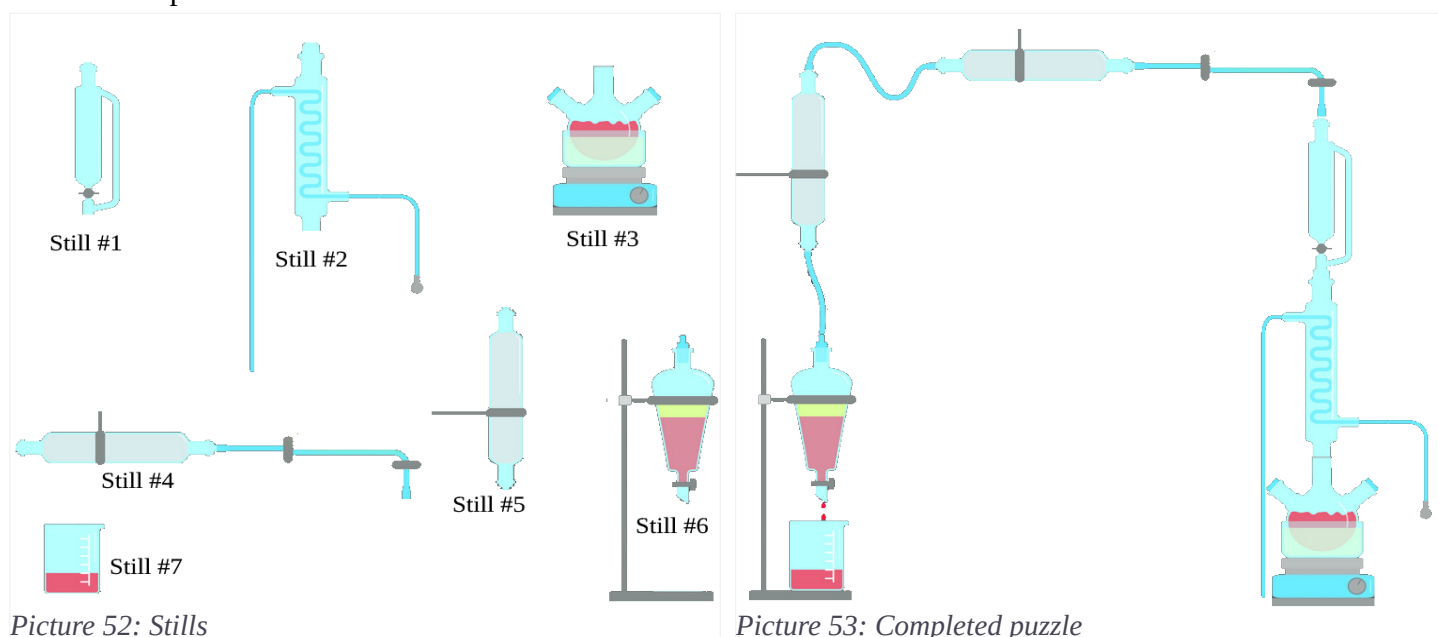
The recipe of the potion

The potion that the magic doors melts.

The recipe is simple but the right elements you need to find. To get started, go to the ingredients cabinet, where the Northern Lights you have to catch.

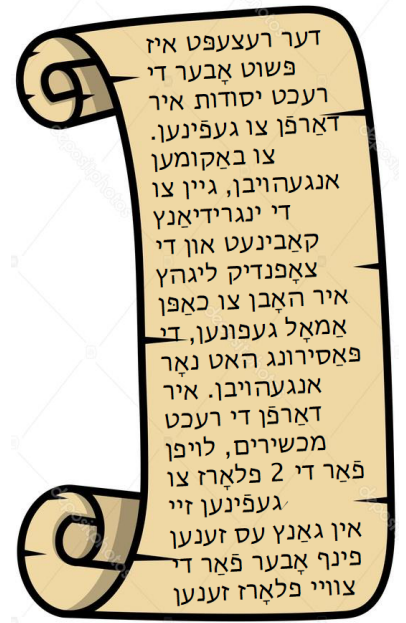Once found it, the adventure has just begun. You need the right tools, lying on the 2 floors.

There are five of them between the two floors spreaded. On the first floor you will find: the vertical tube that could contain a snake in itself, an ampoule fills with two brothers, one big and one thin, attached each other. Finally you have to retrieve a glass tube still in this floor, which a black belt wears in the middle of the body.

On the second floor instead you will find the last two pieces: another tube with the belt you have to look for, this time he is not standing but lying down. Finally look for a big container in the shape of a drop from which the liquids go down ticking.

Remember to insert them in the final construction in the same order in which I listed them in this recipe, otherwise something will always go wrong!

☞A little advice I want to give you, sometimes looking at the tables from above, the right inspiration can give you.

Picture 54: Recipe of the potion

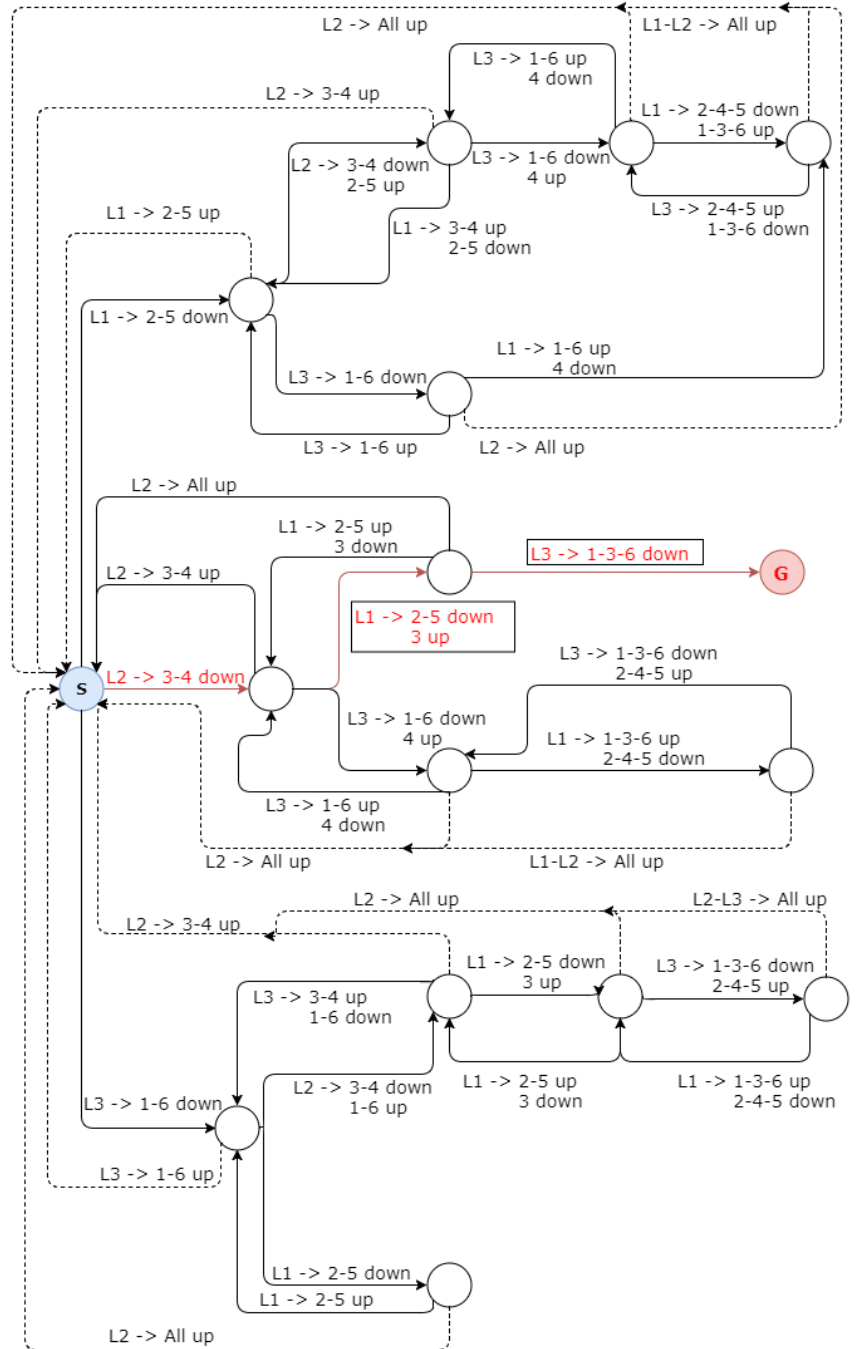| Puzzle prop.	Value
AVG duration	30 min
Difficulty	6/10

Levers puzzle

The lever system behaves as follows: there are 6 libraries that can be raised and lowered. Each lever controls about two libraries, even if the movement is dictated by the state in which the system is at that moment. In this particular phase of play, when the player arrives in the library area, the camera resumes the scene from above, so that the player can see how the libraries move when he activates a lever. When a lever is lowered, the libraries indicated by the FSM are moved and the lever returns to its initial position. This allows the player to be able to lower the same lever again.

In each state the player can press all three levers. For this reason each state has 3 outgoing transactions that represent all the choices the player can make. On each transition it is described what changes the system undergoes, in particular:

- Library that goes up → number up.
- Library that drops → number down.


Picture 56: Libraries and levers

*Picture 55: Behavioral diagram of the libraries*

Puzzle prop.	Value
AVG duration	5 min
Difficulty	4/10

The sewers

In the sewers there are several water basins that can be crossed through mechanisms present in adjacent rooms. Rusty stairs allow the passage between the different levels of the sewers. They pass through the basins swimming in the water infested with fetid animals covered with slime. Finally in the biggest basin, hidden under water, there is a huge monster mainly composed of slime. The last corridor leading to the baths runs along two sewage channels.
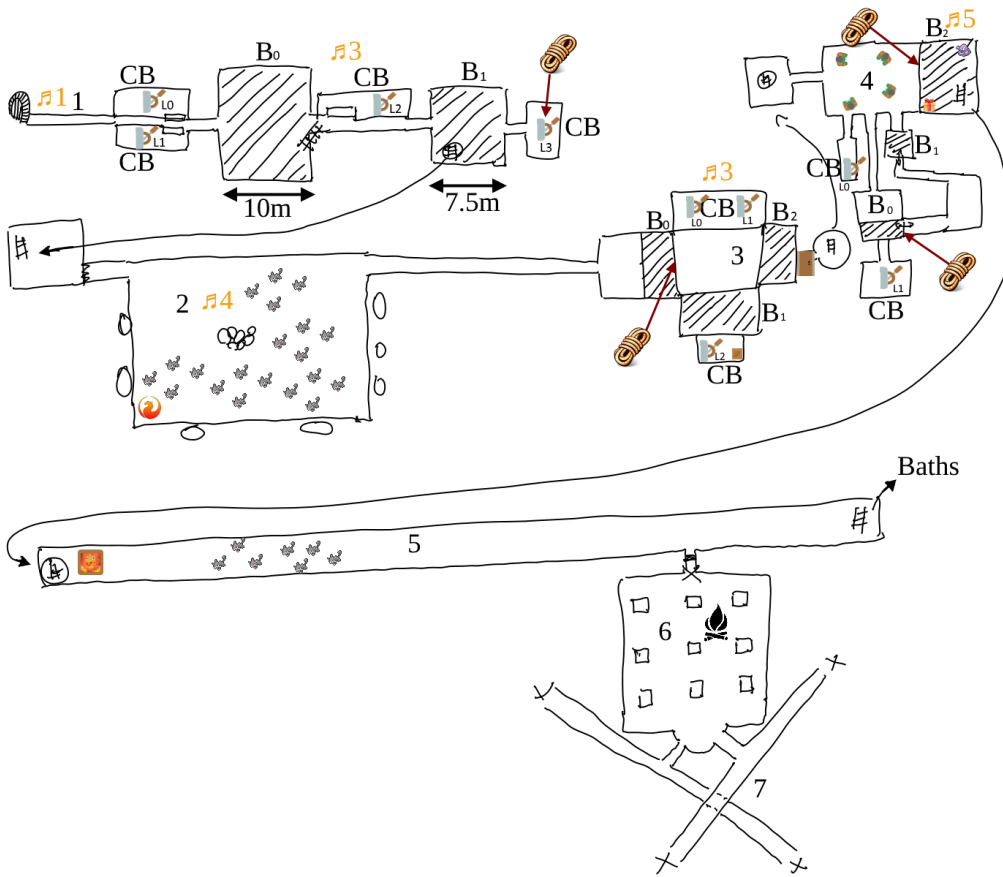
Picture 57: Sewers
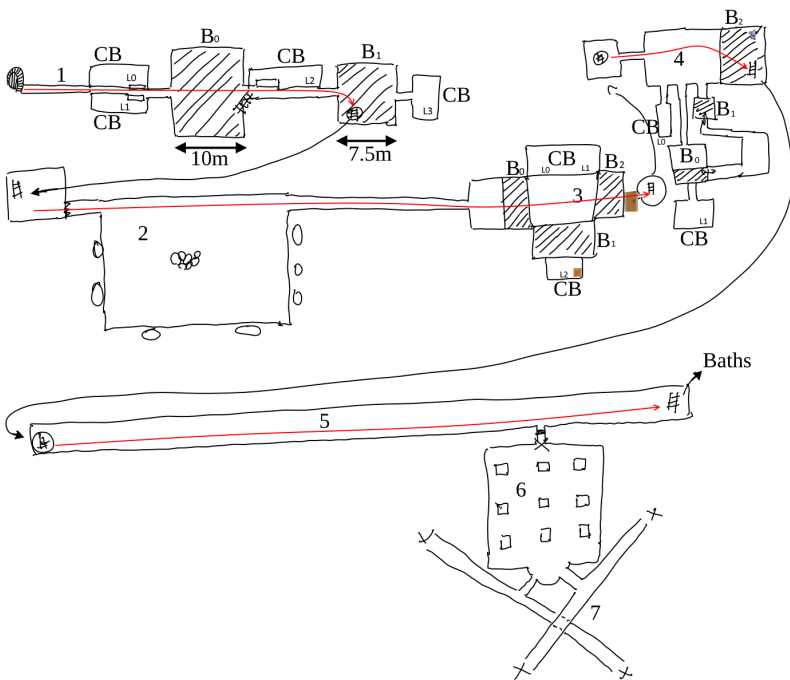
ID	Description
1	Underground canal (-2F)
2	Broken basin (-3F)
3	4-dams water basin (-3F)
4	Large basin (-2F)
5	Upper canal (-1F)
6	Cistern of the castle thermal baths (-1F)
7	Secondary canals (-1F)
B	Water basin
CB	Water basin commands
♨	Checkpoint
🔥	Phoenix tail
🦁	Rewards for Calcifer
🐀	Rat
👾	Mud monster
♫1	Ambient sounds: water.
♫2	Sound effects: boots in water, stroke in water.
♫3	Ambient sounds: water. Sound effects: fire of fire.
♫4	Sound effects: iron on iron, water, fire of fire, squeak.
♫5	Sound effects: plaintive roar.

Picture 58: Main path

Room	Enemies	Damage to T.	Damage of T.	DPT (T., E.) / HP E.	DPT (E., T.) / HP T.	Difficulty	HP loss
Rat's nest	20 rats	31	23.35	0.083	0.198	-0.115	2.38
Large basin	1 mud monster	34.2[7]	24.57	0.245	0.219	0.026	0.893

The fight with 20 rats and the mud monster are the most dangerous of the level, and are accurately described in the "fight pre-analysis / strategy" section.

Sewers' puzzle

The sewers are composed of three areas, and in each of them the player needs to solve an environmental puzzle to continue his journey.

This is based on a sequence of water basins, which can be filled or emptied with a levers system. The player have to understand how the levers work to cross the water basins and to reach the end of the area.

The player is helped by the environment, indeed near each water basins there is a sign which indicates its volume, and near each lever there is a sign which indicates how it works on the basins.

To resolve this puzzles the player must not only find the right combinations of levers, indeed he has to look around to understand how the environment "behaves".

To cross a basins it must be full of water or there must be some object, like a rope or a stair, which helps the team to go through the basins, also in the case it isn't full of water.

The levers are considered as a switch. They have 2 state: 0 up ( ) and 1 down ( ). When you pull the lever, it changes state and it remains in the new one.

The water basins usually have three states: full, half full and empty. When a basin is full the team can swim to reach the other side. If the basins are empty the team could reach the ground but only if there is a rope climb along the wall.

First part

In the first part, as you can see in the pictures below, the player must reach the stairs in the man-hole on the basement of the basin B1, when it is empty. To do that he has to overcome B0 swimming, after filling it with L0. Fills B1 with L2 and than pulls L3. Near L3 the player grabs 2 ropes which allows him to cross B1 and B0 regardless of the water level. Than goes back, pulling L1 and opening the road to the stair on the bottom of B1.
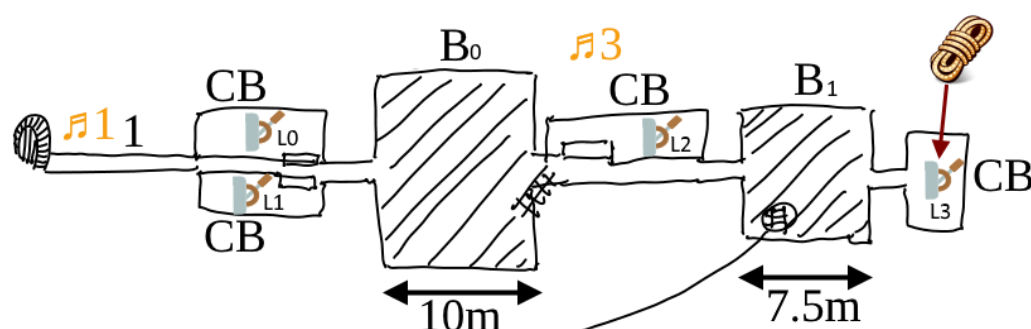
Puzzle prop.	Value
AVG duration	8 min
Difficulty	4/10

Picture 59: Sewer detail: puzzle part 1

Basins

Water Basins	Max capacity	Time	State
B0	1	Start	Empty (= 0)
B1	1	Start	Full (= 1)

Levers

Levers	Time	State	Levers Behave

7   The mud monster tries to hit all the members of the team each turn (inflicts 6,84 to each).

L0	Start	0	0 → 1: - B0 = 1 - B1 = 0 1 → 0: - B0 = 0 - B1 = 1
L1	Start	0	0 → 1: - B0 = B0 - 0.5 - B1 = B1 + 0.5 1 → 0: - B0 = + 0.5 - B1 = - 0.5
L2	Start	1	0 → 1: - B0 = 0 - B1 = 1 1 → 0: - B0 = 1 - B1 = 0
L3	Start	0	0 → 1: - B0 = B0 + 0.5 - B1 = B1 − 0.5 1 → 0: - B0 = B0 - 0.5 - B1 = B1 + 0.5

Right sequence

Iteration	Levers pull	Lever's pulled new state	Behave
1	L0	1	- B0 = B0 + 1 = 1 (can be crossed swimming) - B1 = B1 − 1 = 0 - L0 crashed
2	L2	0	- B0 = B0 − 1 = 0 - B1 = B1 + 1 = 1 (can be crossed swimming) - L2 crashed
3	L3	1	- B0 = B0 + 0.5 = 0,5 - B1 = B1 − 0,5 = 0,5 - Rope throw from floor where is L3 to floor where is L2(necessary to overcome the basins which is half full when he pull down the lever) - Take another rope to thrown down from L2's floor in the basins to reach the ground near L0.
4	L1	1	- B0 = B0 + 0,5 = 1 (can be crossed swimming) - B1 = B1 − 0,5 = 0 - Use the rope you throw down before to reach the ground and the exit

Second part

In the second part the player must find a way to open the door which blocks the access to the stairs on the right part of the map. To do that he must overcome the first basin which is full when he arrives. After that he finds two levers near room 3: L0 and L1, L1 is without the stick; so he has to pull down L0 take L1's stick which is in B0's ground (to reach B0's ground he must throw down the rope from 3 to B0). After that he puts the stick in L1 and he pulls down L1 to reach L2. L2 has the particularity that is state=1 and if you pull it up it opens the door but after few second it starts to go down slowly. So the player must use the chest near L2 to block it. In the end he overcomes B1, pulls L1 up again so he can reach the stairs by swimming in B2 that has been filled.
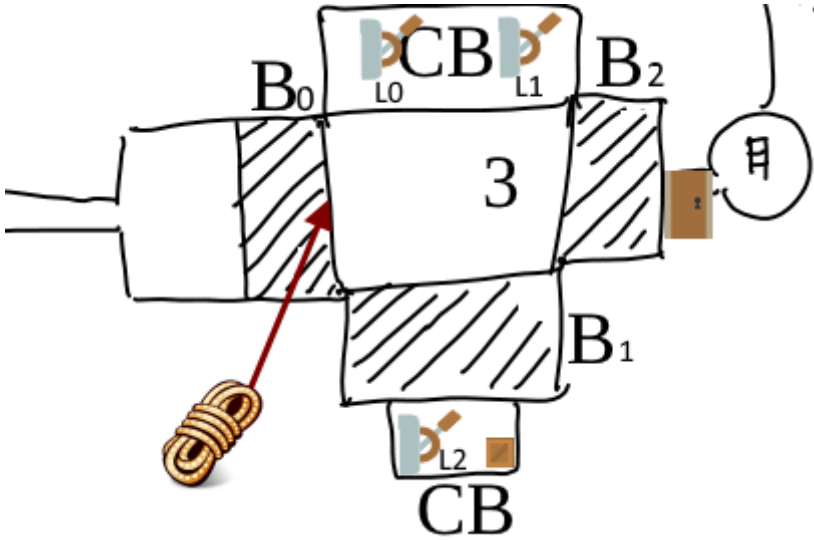
Puzzle prop.	Value
AVG duration	10 min
Difficulty	5/10

Picture 60: Sewer detail: puzzle part 2

Basins

Water Basins	Max capacity	Time	State
B0	1	Start	Full (= 1)
B1	1	Start	Empty (= 0)
B2	0.5	Start	Empty (= 0)

Levers

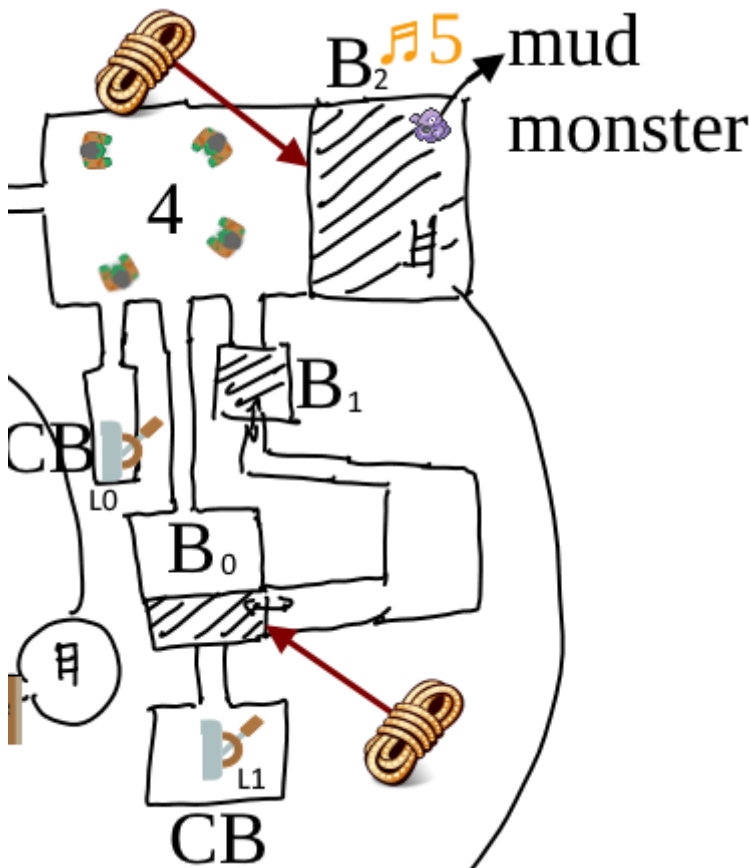| Levers	Time	State	Levers Behave

L0	Start	0	• 0 → 1:
			  ○ B0 = 0
			  ○ B1 = 0.5
			  ○ B2 = 0.5
			• 1 → 0:
			  ○ B0 = 1
			  ○ B1 = 0
			  ○ B2 = 0

L1	Start	• Without stick
		• When the stick is rescue → state = 0
			• 0 → 1:
			  ○ B0 = 0
			  ○ B1 = B1 + 0.5
			  ○ B2 = B2 − 0.5
			• 1 → 0:
			  ○ B0 = 0
			  ○ B1 = B1 − 0.5
			  ○ B2 = B2 +0.5

L2	Start	1	• 0 → 1:
			  ○ Door closes
			• 1 → 0:
			  ○ Door opens

Right sequence

Iteration	Levers pull	Lever's pulled new state	Behave
1	L0	1	• B0 = B0 − 1 = 0 • B1 = B1 + 0, 5 =0.5 • B2 =B2 + 0.5 = 0, 5 • Reach B0's ground and take L1's stick
2	L1	1	• B0 = 0 • B1 = B1 + 0.5 = 1 (can be crossed swimming) • B2 = B2 − 0.5 = 0
3	L2	0	• Door opens • Few second after he pulls up it starts to go down so he must use the chest near the lever to block it
4	L1	0	• B0 = 0 • B1 = B1 − 0.5 = 0 • B2 = B2 + 0.5 = 1 (can be crossed swimming) • Now he can swim through B2 and reach the stairs

Third part

In the last part the player must empty the B2 to reach the stairs that allow him to continue. To do that he has to pull down L0 which fill B0. Now the player can reach L1 which empties halfway B0, preventing him from go-ing back, but fills B1 to the maximum of its capacity. Near L1 there is a secret passage in which Markl must pass to reach the near corridor and throw the rope into the B0. This is in fact necessary because the basin is half empty and corridor to be reached is placed at a height greater than the control platform in which they are lo-

cated. Now the player can cross B1 and activate two times L0 in order to (first fill and than) empty B2 and reaches the stairs. When the team empty B2 and reaches the ground, the mud monster appears.

Puzzle prop.	Value
AVG duration	9 min
Difficulty	6/10

Picture 61: Sewer detail: puzzle part 3

Basins

Water Basins	Max capacity	Time	State
B0	1,5	Start	Empty (= 0)
B1	0,5	Start	Empty (= 0)
B2	2	Start	Full (= 2)

Levers

Levers	Time	State	Levers Behave

L0	Start	0	• $0 \rightarrow 1$:
			  ○ B0 = B0 + 1,5
			  ○ B1 = 0
			  ○ B2 = B2 − 1,5
			• $1 \rightarrow 0$:
			  ○ B0 = B0 − 1,5
			  ○ B1 = 0
			  ○ B2 = B2 + 1,5

L1	Start	0	• $0 \rightarrow 1$:
			  ○ B0 = B0 − 1
			  ○ B1 = B1 + 0.5
			  ○ B2 = B2 + 0.5
			• $1 \rightarrow 0$:
			  ○ B0 = B0 + 1
			  ○ B1 = B1 − 0.5

Levers	Time	State	Levers Behave
			○ B2 = B2 – 0.5

Right sequence

Iteration	Levers pull	Lever's pulled new state	Behave
1	L0	1	• B0 = B0 + 1,5 = 1,5 (can be crossed swimming) • B1 = 0 • B2 = B2 – 1,5 = 0,5
2	L1	1	• B0 = B0 – 1 = 0,5 • B1 = 0.5 (can be crossed swimming) • B2 = B2 + 0,5 = 1 • Markl uses the secret passage to reach the corridor and to throw down the rope in the basin. Now the team could arrive in the corridor which continues at B1. After they overcome B1 they must do something.
3	L0	0	• B0 = B0 – 0,5 = 0 • B1 = 0,5 • B2 = B2 + 0,5 = 1,5
4	L0	1	• B0 = B0 + 1,5 = 1,5 (can be crossed swimming) • B1 = 0,5 • B2 = B2 - 1,5 = 0 • The team could reach B2's ground throw down the rope near the edge.

The castle

They enter the castle from the passage in the baths, made up of four pools, three of which are filled with water, while one, from which they enter, is empty. From there, you can explore the west wing, which leads to the prisons, kitchens and the two court gardens, very large but purplish no longer beautiful as once no longer treated, weeds and bushes without shape dominate the environment. You can also explore the east wing from which you enter the reception and the tower that leads upstairs. The corridors and rooms have lost their old splendor in favor of slime and darkness. Upstairs there are the rooms of the king and his guests, the throne room (where the soldiers who are part of the main quest are located), very large and spacious in which the sumptuous furniture was ruined by a recent fight, and a small sighting tower without furniture.

Picture 62: Castle's flow-chart

Picture 63: flow-chart of the exploration to the prison

ID	Description
🐛	Enemy
🪣	Mud-spammer
🛡	Elite soldier
1	Exit of the sewers (-1F)
2	Thermal baths (-1F)
3	East wing corridor (0F)
4	Jail (-1F)
5	South east garden (0F)
6	North east garden (0F)
7	Receiving room (0F)
8	Kitchen (0F)
9	Upper east corridor (1F)
10	Guest room (1F)
11	Guest bathroom (1F)
12	Upper north corridor (1F)
13	King's room (1F)
14	King's bathroom (1F)
15	Terrace (1F)
16	Throne's room (1F)
17	South east tower (2F)
♫1	Score: cello [Larghetto]. Ambient sounds: water, wind. Sound effects: water, dog shaking, iron on iron.
♫2	Ambient sounds: water, wind.
♫3	Score: medieval theme [Vivacissimo]. Ambient sounds: voices of people. Sound effects: boot on wood, iron on iron.
♫4	Score: cello [Larghetto].

Picture 64: Map of the castle

Picture 65: Main paths

Fights

Room	Enemies	Damage to T.	Damage of T.	DPT (T., E.) / HP E.	DPT (E., T.) / HP T.	Difficulty	HP loss
Room 3 right	1 soldier	3	24.57	0.766	0.019	0.747	0.024
Room 3 left	2 mud spammer	6.70	24.57	0.409	0.042	0.367	0.102
Room 8	4 soldier	12	24.57	0.191	0.076	0.115	0.397
Room 9	1 mud spammer	3.35	24.57	0.819	0.021	0.798	0.025
Room 17	1 soldier, 1 mud spammer	6.35	24.57	0.396	0.040	0.356	0.101
Room 15	2 soldier, 2 mud spammer	12.70	24.57	0.198	0.081	0.117	0.409
Room 13	2 soldier, 1 mud spammer	6.35	24.57	0.261	0.040	0.221	0.154
Room 16	6 elite soldier	30.6	24.57	0.102	0.196	-0.094	1.921

The fight with the elite soldiers is accurately described in the strategy section of the fight pre-analysis. The high number of battles in the castle, after the previous phase in the sewers, will test the team resistance. The player will be encouraged to explore for potions.

Castle's puzzle

To access the kitchen and the prison, for a side-quest, you need to solve a puzzle.

Puzzle prop.	Value
AVG duration	7 min
Difficulty	5/10

Picture 66: Castle's puzzle

In the castle's garden there are three types of flowers arranged parallel to each other. Therefore each line has its own type (color), and each box may represent 4 different ancient symbols. The player will have to manipulate the irrigation system by walking along the perimeter of the garden: entering it and touching the perimeter again defines a clod of earth that dries up due to irrigation. The aim is to avoid repetition of symbols on the same line.

The prisons of the castle

The prisons are accessed by a steep flight of stairs that overlooks a small room that gives access ti the corridor leading to the guard post, a large room consisting of a table and several chairs. Inside this room there are three doors: a closed door that can only be opened with the key kept by the station guard and which allows access to the cell room, a door leads, through a corridor, to the second place of guard where there is one of the two keys that allows to open certain cells and finally the third door leading to the third place of guard which is specular to the second and where there is the second key which allows to open the other cells. The other difference respect to the second place of guard is that there is a secret passage that allows us to reach the interrogators' room, where we find an excellent reward, and which would otherwise be inaccessible. From both the side guard post, you access to the cell room. The latter is very wide and at the bottom has an inaccessible door that connects it to the interrogators' room.

Lights

The prisons are buried, the light that passes from the few small windows is enough to illuminate just a few parts of the rooms. For this reason all the rooms of the prisons are illuminated by torches on the walls. The only areas where they are not inserted are the cells. These areas are in fact dark on the opposite side of the door and as you go towards the grilles, a light illuminates them.
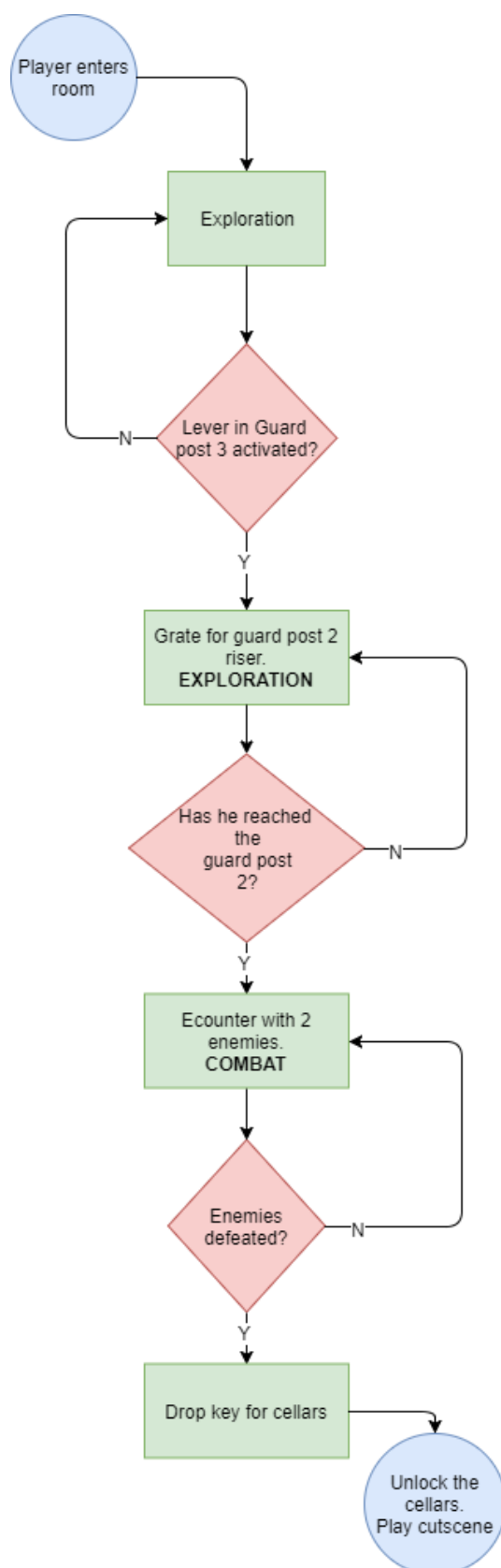

Picture 67: Prison's flow-chart

ID	Description
	Enemy
	Civilians
♫1	Score: military theme [Adagio].
	Ambient sounds: boots on wood.
♫2	Ambient sounds: boots on wood, voices of people.
♫3	Sound effects: bark and growl aggressively.

Picture 68: Main path

Fights

Room	Enemies	Damage to T.	Damage of T.	DPT (T., E.) / HP E.	DPT (E., T.) / HP T.	Difficulty	HP loss
Entrance	1 soldier	3	24.57	0.767	0.019	0.748	0.024
Guard post 1	3 soldier, 1 mud spammer	12.35	24.57	0.195	0.079	0.116	0.405
Guard post 2	3 soldier, 1 mud spammer	12.35	24.57	0.195	0.079	0.116	0.405
Guard post 3	4 soldier, 1 mud spammer	15.70	24.57	0.155	0.100	0.055	0.645
Torture chamber	2 soldier	6	24.57	0.383	0.038	0.345	0.099

The mission in the prisons is optional as difficult, but essential for the best end of the game. The energies spent fighting will at least partly be recovered with the potions.

20 - Finite State Machine

Ben

These FSM describes Ben's behavior within level 6 when he is in the base and when he is out of the base. Ben is a friendly NPC that differs from others in behavior given its importance in history and within resistance. He is a very charismatic character and for this he often speaks with the other NPCs inside the base. He moves randomly around the floors -1 and -2 of the base. To describe the reactions of Ben to the actions that the player performs or depending on who he meets, we used labels.
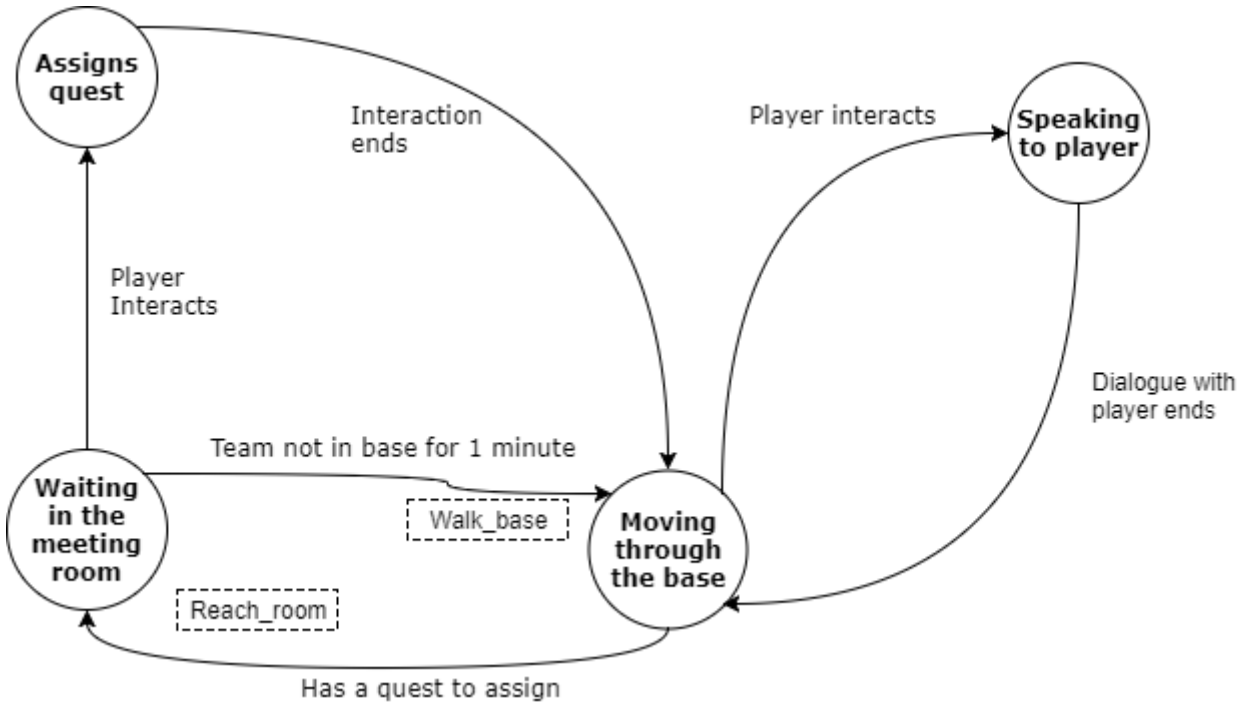
Picture 69: Ben's finite state machine in the resistance base
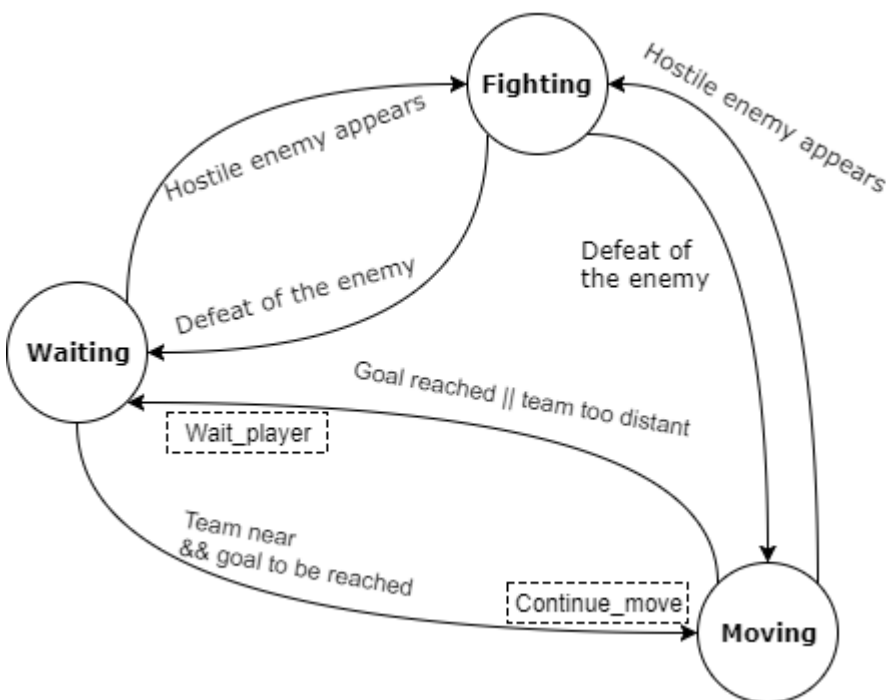
Picture 70: Ben's finite state machine out of the resistance base

Legend:
- Reach_room: Ben reaches his personal room where he waits for the player.
- Walk_base: Ben starts to walk inside the base randomly and he has an exchange with the NPCs in the rooms.

Global group of soldiers

The finite state machine relative to the global group of soldiers in the city. The groups of soldiers who patrol the various areas behave according to this FSM. To describe the reactions of the soldiers to the actions that the player performs, we used labels. The meaning of each is described under the image of the FSM.
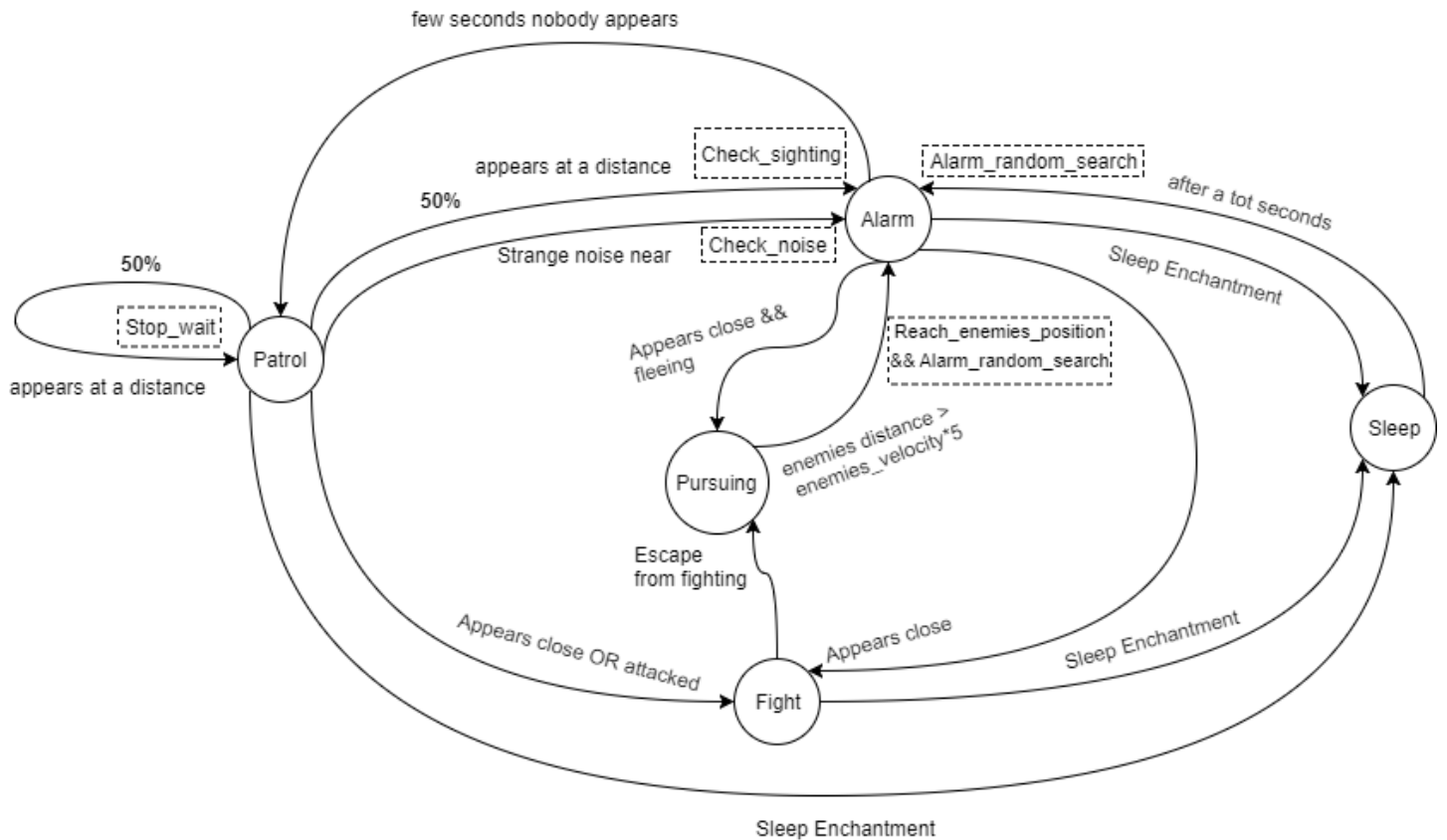
Picture 71: Global group of soldiers's finite state machine

Legend:

- Check_sighting: The soldiers go check in the direction of the sighting.
- Check_noise: The soldiers go check in the direction of the noise.
- Alarm_random_search: The soldiers move casually in a small area around them looking for the enemy.
- Reach_enemies_position: The soldiers reach the last position of the enemies (= Enemies_velocity*5).
- Stop_wait: The soldiers stop in place and they wait for 5 seconds.

Friendly N.P.C.

This FSM describes the behavior of all friendly NPCs within level 6.

In this level their behavior is very simple and their mood can not be altered by talking to the player, in fact they have a series of predefined beats:

- Greet the player, one is casually taken each time.
- The player can ask some predefined questions but there are no choices in the dialogue that can change the behavior of the NPCs.
- If Ben is talking to a NPCs, the dialogues are randomly taken from a small list of stories of operations or old memories.
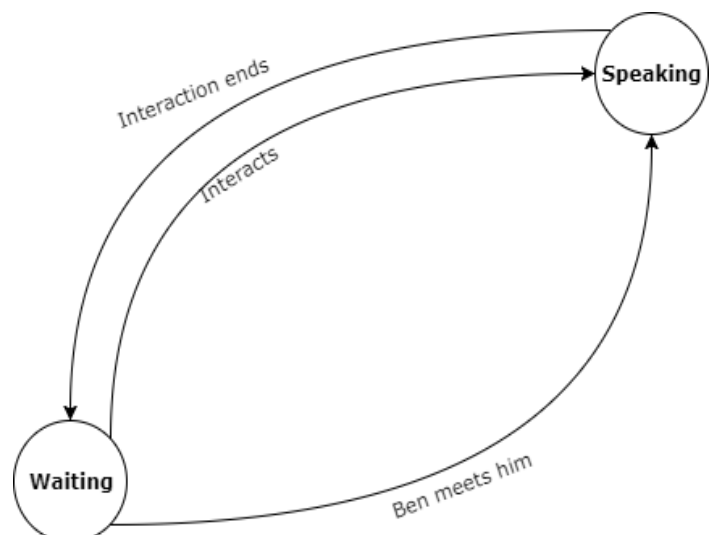
Picture 72: Friendly N.P.C.'s finite state machine
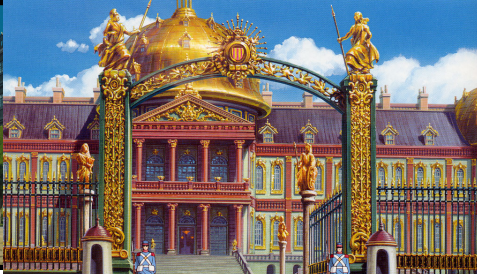
21 - Additional reference images

Settings

Ingary

Kingsbury

Picture 73: City center

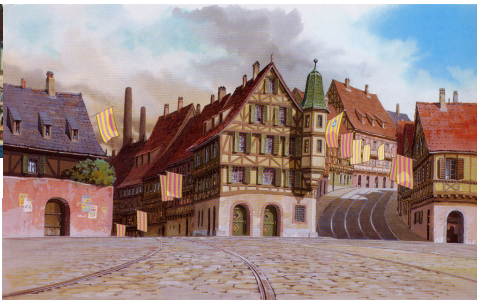

Picture 74: King's castle

Picture 75: Suburbs

Images taken from: Howl's Moving Castle movie
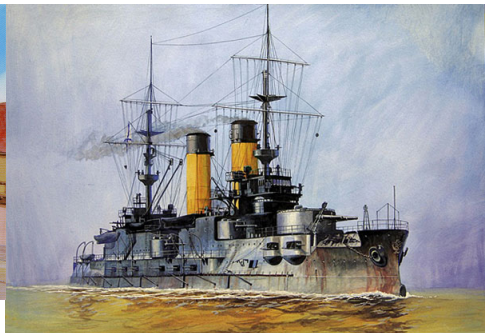
Porthaven

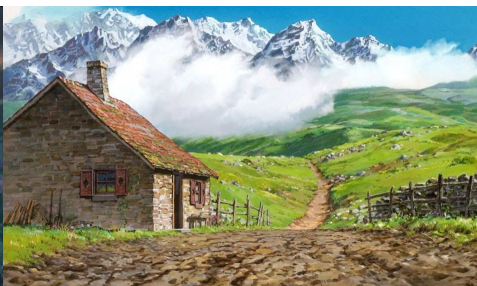*Picture 76: Harbour*

Picture 77: Market

Picture 78: Ship

Images taken from: Howl's Moving Castle

The waste

Picture 79: The waste

Picture 80: Folding valley

Picture 81: Moving castle

Images taken from: Howl's Moving Castle movie

Radme

Cal

Picture 82: Cal

Picture 83: Castle

Picture 84: Castle inside

Picture 85: Prison

Picture 86: Sewers

Picture 87: Prison

Images taken from: web

Clearing

Picture 88: Clearing

Picture 89: Fortress

Picture 90: Fortress

Images taken from: Castle of Likava

Dark Mountain

Picture 91: Dark Mountain

Picture 92: Dark Mountain

Picture 93: Castle

Roaring Hills

Picture 94: Mine

Picture 95: Mine: internal

Picture 96: Village

Salt Marina

Picture 97: Salt Marina

Picture 98: Harbour

Picture 99: Bazaar

Swamps

Picture 100: Swamps

Picture 101: Swamps

Picture 102: Swamps

Images taken from: web

Rewards

Calcifer's armor pieces

Picture 103: Back plate

Picture 104: Boots

Picture 105: Helmet

Picture 106: Shoulder plate

Picture 107: Studded gloves

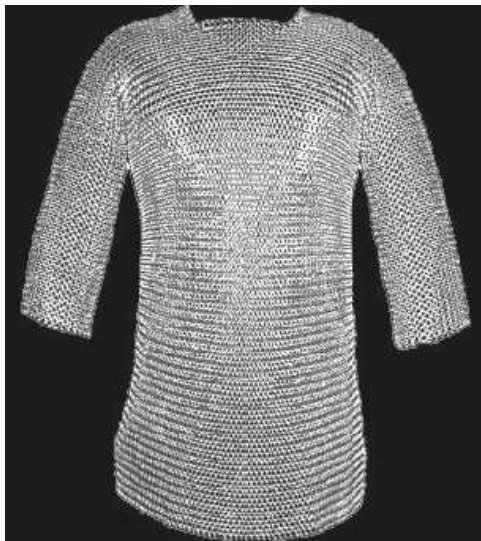*Picture 108: Trunk plate*

Heen's weapons and armor

Picture 110: Double headed

Picture 111: Nailed bat

Picture 109: Club

Picture 112: Chain mail

Picture 113: Plate armor

Picture 114: Shield

Magic clothes

Picture 115: Boots

Picture 116: Hood

Picture 117: Robe
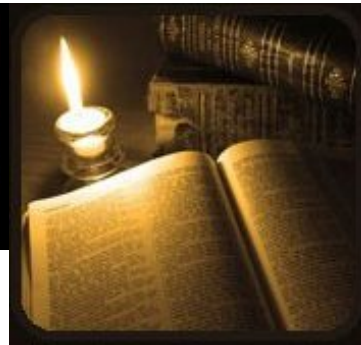
Potions

Picture 118: Potions

Exploration's rewards

Picture 119: Old ampoule

Picture 120: Old book

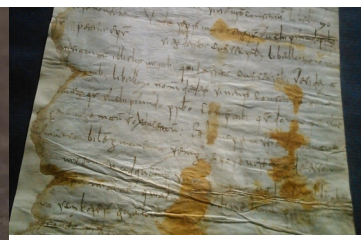Picture 121: Old book

Picture 122: Moon clock

Picture 123: Ancient comb

Picture 124: Marble ring

Picture 125: Egyptian scroll

Picture 126: Roman scroll

Other resources

Other images are in the folder ./Resources/Levels/ or on GitHub: https://github.com/mikymaione/Howl-s-Moving-Castle-another-door/tree/master/Resources/Levels/