

# Dark Light

Design Journal

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SS2024



# Week 1

## Tasks of the week

Start to make farm map in Unity

Ideas for puzzles

⊗ **Not done** ⊗

Sketches of 3d models

## Process description and screenshots

In the first week we firstly formed a group and started the brainstorming process to define the main idea of the game. After some discussion, it was decided to make a puzzle game. The first idea that came into mind was a game with a little helper who follows the main character and helps to solve out puzzles. After that the idea of the sun came. We understood that the main thing for the first week was to define the general concept and the main goal of the game and make some sketches to visualize the ideas . So, our team decided to stick to the idea of the post apocalyptic game in which the main goal is to send the sun back to the sky. Three locations were defined: forest, farm and village. I personally concentrated on the farm.

First of all I made a sketch of it and then applied it into Unity.



To do that I used basic unity 3D objects and created a first rough version of the farm map. Recreating sketch in unity gave me an understanding of working with 3D objects and also it helped to understand what features I want to apply there in the future. My teammates and I created the idea of the first puzzle that should be in this part of game. It is supposed to be a puzzle with the mechanic of collecting numbers, which are placed on different objects int the location. After that the player should use these numbers to enter the code and open the door to the barn to find the next puzzle there.

# Week 2

## Tasks of the week

3d model of the barn

Add numbers of the code on game objects

Make bushes smaller or path wider

 **Not fully done** 

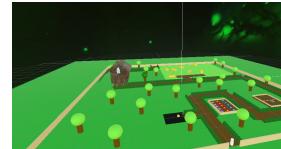
Make code for opening doors with code (cursor issue)

## Process description and screenshots

The second week of prototyping I started from creating a 3D model of the barn. It was my first experience of working with 3D modeling so the process wasn't smooth and easy. The creation of the barn model took me 2 days of constant work and in the end, I wasn't satisfied with how it looked like. Besides the bad proportions, textures and etc., the biggest issue was that the barn was visible only from outside, but not from the inside of the model. So I was sure, that the barn would need to be recreated in the future, when I have more skills for that.



**3D Model of the barn**



**Keypad**



After that I started working on the puzzle mechanics for which I made a script. The script was working with the keypad, which appears when the player comes closer to the barn doors and clicks "E". After that the keypad with numbers appears and the player can enter the code. If the code is correct, the animation of opening doors activates, in other case the keypad disappears. However, there was a problem with this mechanic as it was impossible to click numbers on the keypad due to the issue with the cursor. The cursor was disappearing any time I tried to click something. So I asked my teammate, who is more experienced in the programming, if they can fix it.

The final feature that I added were the numbers of the code that are placed on the objects of the map. I made it by creating the texture in the photoshop and creating material after that.



**Numbers of the code**



All in all, I would like to say that the first experience of 3D modeling was hard but interesting. I believe that my main problem was that I started trying to do something before learning general basics of working in Maya and it complicated the process a lot. I should have given myself more time for learning theory.

# Week 3

## Tasks of the week

Fixed puzzle with the code

Light in the barn

Light animation

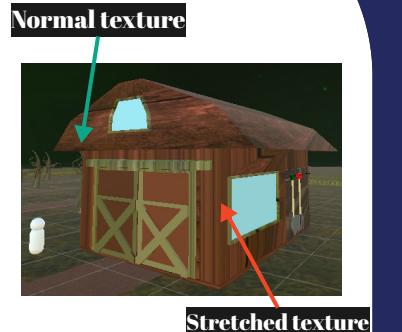
Texture of ground, paths, field

Trees 3D model

Fence 3D model

## Process description and screenshots

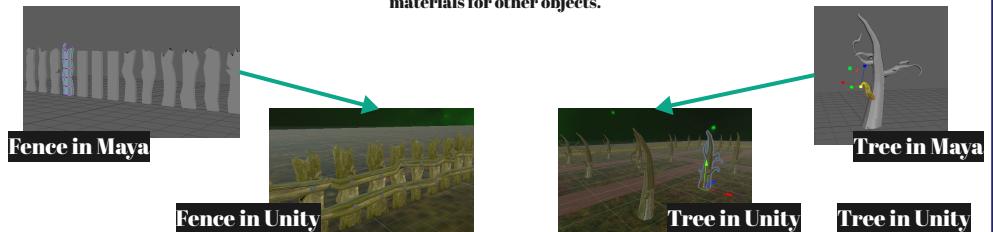
Week 3 was a week of the first milestone, that is why I tried to change my map as much as possible and to fix the things that were not working. First of all, I finished the barn 3d model, I still have things that I want to improve there, but in general, I made it. For now, the texturing is the main problem. At some parts of the model the wood texture is applied normally, while on others it is strangely stretched. I tried to make some wall the separate parts of the 3D model but it didn't help.



After that I started working on the code and animation of the doors. There was a problem that the doors were invisible from the back when they open, due to my mistakes while working in Maya. I managed to fix it in unity by adding ordinary cubes.

The cursor issue was fixed so I could move further in the puzzle development. Almost immediately, I found out that I had a mistake in the code and I didn't finish the buttons activation. That is why my keypad was not working. Fortunately, I found good YouTube tutorials and fixed problem quite fast. Also I made the doors sliding instead of turning, so they don't hit the player during the animation.

Next thing was 3D modeling. The farm map needs a lot of 3D objects so I managed to make trees, fence and some materials for other objects.



Surprisingly, the biggest insight of the week was the importance of scaling. I had to work on scaling because the size of all my objects was illogical (for instance, the barn and fence were the same height). And as they stay far away from each other on the map, I haven't even noticed this scaling issue while adding models to the game.

The last feature that I wanted to add was light in the barn. It would help to create the atmosphere and the mood of the game more. So, I created a chandelier and lamp 3d model in Maya, then added light and animation for it in Unity. So it looks like the light blinks. All in all, week was tough and important, because of the first milestone, but it was

# Week 4

## Tasks of the week

fog

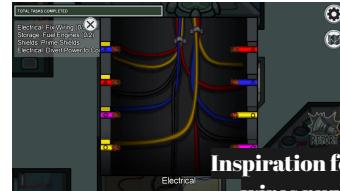
garden without bushes

terrain

sound to the opening doors

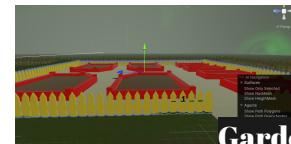
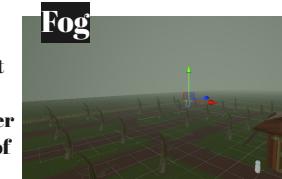
## Process description and screenshots

Week 4 was not the most productive for me as it was the week just after the milestone, the group changed a bit so I needed to set my brain to plan the future work. I wanted to do a lot, so at that point it was important to set the priorities. I wanted to try a bit more programming, so I started to make the wires puzzle but I didn't succeed and dropped it. I had problems with 3D objects interacting with 2D sprites. I could not understand fully where to place 2D and 3D object and how they interact with each other.



Inspiration for the wires puzzle

After that I tried working on a new detail to the farm: garden. It took me a bit more time than expected, especially doing the fence around the garden. So, in this week I didn't manage to finish the garden (it was empty, without any plants/dead bushes). But all this additions are in the plan for week 5. In addition, I added fog using rendering settings in Unity. It was easy but it changed the mood of the map a lot. Also the plane (that is being used as a ground) was replaced with the terrain in order to create a more realistic relief of the ground. I watched tutorials about how to work with the terrain (my first experience with it). It was very interesting and useful, as it helped me to understand the main settings and tools of the terrain.



Garden

All in all, not the best week from the hard-working/productive side but I added some little useful things, for example, sound to the animation of opening doors, and understood the direction in which I want to continue working.

# Week 5

## Tasks of the week

Finished garden 3D model

Prototype of greenhouses

Colliders to all 3d objects

Changed the ladder

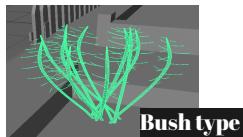
Added river

## Not done

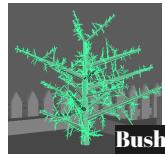
Add second floor to the barn

## Process description and screenshots

This week was full of work and changes. I finished the garden model, for which I made 3 different type of bushes and it took a lot of time, because adding more and more branches is a very boring but important work.



Bush type 1

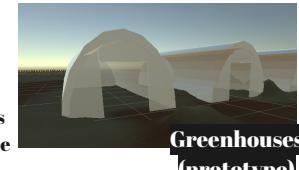


Bush type 2



Bush type 3

In addition, I made a prototype of the greenhouses, just to define their size and location on the map. The proper 3D model is for a bit later, because I tried already 2, 3, or 4 times to do it, but I still can't find the right approach how to work with the half cylinder, how to make a door, whether it should be roundish or not and etc. Also there are no tutorials for that type of the greenhouse that I want to create, so during week five I concentrated on other things.

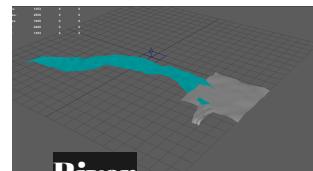


Greenhouses (prototype)

What is more, I worked on the colliders and attached colliders to all 3D models. However, there is a problem with a collider for the roof of the barn, as the collider is a cube and it doesn't match the shape of the roof. I have a ladder to the roof at the current stage of the project, so it seems important.



Another very important thing is that I added a river model and adjusted terrain for it. The idea is that the player goes from farm to village under the ground, so I want to explain it, why under the ground? For that reason between farm and village I added a river, which is supposed to be a filled with green toxic water, so the only way to cross it is under the ground. For the river I learnt how to create terrains in Maya, and how to work with curves. I find the curve tool interesting and useful, so I think I will use it more in future.



River

# Week 6

## Tasks of the week

Finished terrain

New barn model (with the 2nd floor)

New textures

New ideas for the code puzzle

 **Not done** 

Add objects (hay, boxes, cans, etc.) to the second floor of the barn

## Process description and screenshots

I started this week from creating a new barn 3D model from very beginning, as I was not satisfied with the previous one. The main reasons for that:

1. The old barn had windows that were seen only from the outside, but if the player looks from the inside, there are no windows at all.
2. I wanted to make the barn that really is made of wooden boards (so the space between them is seen), so it looks more realistic.
3. Barn should have 2 floors and there should be some objects at the 2nd floor, like hay, cans with food, pieces of wood. It makes everything looks more like in real life.

And before doing this model I took a look at a lot of references, photos of the real barns, to define the shape of the roof, proportions and etc.



Barn outside



Barn inside

P.S. I moved the ladder from outside to the inside of the barn so the problem with the roof collider was solved that way.

After doing the barn model, I finished the river that I started doing the week before and exported it into unity. For the first time, after exporting from maya to unity, I had errors, at first I thought that because of them my model is not imported into unity, but then

I understood that it was a warning, and it was caused by the material that I created in maya.



Talking about the materials, during week 6 I finally figured out how to make a transparent material in Unity, so I applied it to a broken window and a lamp in the barn. And for the lamp and light in the barn I had to redo animation again, as my new barn model is much bigger and higher then the previous one.

But the main problem of the whole week was that the repository became too big and just broke. I couldn't understand why it happened, but as we saw later with my teammates, it was because of some big 3D models and textures. The craziest thing was that my garden model was 1GB!!!! and its model had 144 million faces, I really made it detailed and added a lot of bushes there... So for that moment, I just had to delete garden from the project. And we made a new repository.

# Week 7

## Tasks of the week

3D model of the gnome in the garden

Add more colliders

Proper models of the greenhouses

Redo the garden

Two more garden models

Fix UV of the barn and trees

Fence animation

Add objects (hay, boxes, cans, etc.) to the second floor of the barn

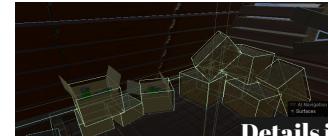
## Process description and screenshots

At the beginning of the week I worked on the animation of the fence. The idea is that the player clicks "E" and the animation of fixing fence starts and after that, one number of the code appears. And I also implemented some light there, to drag player's attention to the number. This animation was not very difficult to code and make, however, it still took me a few hours to polish it, work on the materials, light, etc.



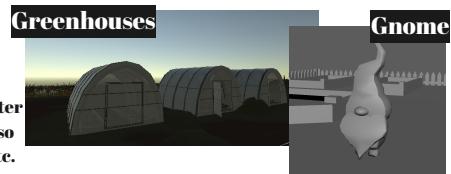
Fence animation

Then I also worked on adding colliders to the new barn model and some details inside of it.

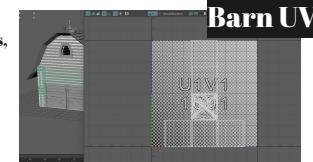


Details inside the barn

After that, problems started again. I had an error in Unity, while all other team members didn't have this errors. I was trying to figure it out, as I thought at that moment, the problems were somehow connected with the Unity version. So for a few days, till next group call, I concentrated on working in Maya. I redid garden model, so that it weights less. Professor Florian gave me a piece of advice about how to fix it, so, first of all I reduced the number of faces, and then I just made 1 model for every bush in Maya, and made more bushes in unity not in maya. That saved a lot of space in a new repository.



At the next step I made one more type of the garden, to add some diversity of 3D models to the game. And for the first model of garden I created a little garden gnome, as I think it is a very cute detail, that adds some mood to the farm. After that I worked on the proper 3D model of the greenhouses, so they look like the real ones, with metal frames, door and etc.



It is also worth mentioning, that from very beginning I had a problem that the textures were applied not right to some objects, for instance, walls of the barn and trees. So I asked Professor Florian again about it, and learnt that it was because of the bad UV. That is why I made good UVs for all my 3D models and the problem was solved out. It is pity that I didn't know even about the existence of UV in the beginning of the semester, because improving very messy UV when the model is already done is difficult. That is why now I know that it is important to pay attention to the UV from the very beginning of the modeling process.

# Week 8

## Tasks of the week

Purple light animation

Switcher in the greenhouse

Return skybox

Tomato bushes 3d model

Drawing for the greenhouse

Added closing animation for all doors

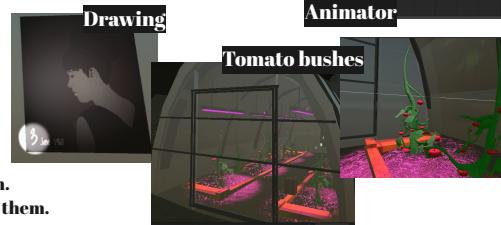
## Process description and screenshots

During week 8 I already felt how soon the Vertical Slice milestone is and it made me very stressed and nervous. So, to be very honest, next two weeks were difficult for me, as I wanted to make a good impression at the vertical slice presentation, however, there were still a lot of stuff to add and improve and in such moments I can't always cope with stress.

But if we talk about technical stuff, I started to work on the purple light and switcher animation, which is the most complicated animation I have ever done so far. Because of a big number of elements there. First of all, I made a 3d model of the switcher in Maya, for that I used some references of real switchers. After that I started to work on the light in Unity, and this process was full of experiments. I started with the point light and just one big lamp in the middle of the ceiling. That looked not logical, so I made two rows of lamps at the left and right sides of the greenhouse. After that I changed the point light to the spot light, so it influences only the bushes and ground around them. The next issue to solve was a material of the greenhouse, I had to define its transparency and how it reflects the light, for that I experimented with the "Metallic" and "Smoothness" parameters of the material.



Also for this animation I needed a vintage photo on the wall and for that I made a drawing of the old photo of my grandmom with a date in the bottom, where number 3 is a number necessary for the code puzzle. For making this animation completed I created 3D models of the tomato bushes, that appear instead of the dead bushes when the light is turned on. Also I worked on some other animations and code for them.



At that stage of the project I had opening animations of some doors, but no closing animation. So I updated the code, added new triggers, created new animation and the closing animation was done. However, I faced a problem here, if I make the same button to trigger opening and closing animation, two triggers are activated at the same time, so the door opens and closes, or the switcher turns on and off at the same time. So I had to make one key for opening and another for closing.

What I can notice here, this week was a moment when I started to do much more coding than I planned and wanted to, as I prefer to concentrate on 3d modeling, but, animations needed quite a lot coding as well.

```
// Update is called once per frame
void Update()
{
    if (Input.GetKeyDown(KeyCode F6))
    {
        arka.SetTrigger("SwitchOn");
        player.infernoLight = true;
        On = true;
    }
    else
    {
        if (Input.GetKeyDown(KeyCode F6))
        {
            arka.SetTrigger("SwitchOff");
            player.infernoLight = false;
            On = false;
        }
    }
}
```

# Week 9

## Tasks of the week

Add dialogues

Polish terrain

Scientist table

Text hint for the controllers

Add more trees

Animation after wires puzzle

Animation after bee puzzle

New UI for the dialogues

## Process description and screenshots

Well, during week 9 happened a lot of changes, as it was a week before the deadline. My week started from working on dialogues in the game, as the feedback from the Professor was that the narrative part is not shown in the game at all. Dialogue system was kind of there, as Marianna did it the general coding for it, but I needed to figure out how to implement it to the game with the trigger colliders in the certain places. I was working with the scripts a lot again, even much more than the week before. I made scripts to activate dialogues, when the player triggers the collider and starts to talk to themselves. At first, it seemed difficult, as I wanted to make it without a button "Start Dialogue", but then, it turned out to be too difficult. So, the button stayed, and dialogue appears after clicking it. But the most difficult part started when I started to work on the dialogues between the sun and the player. I was trying to find ways to make it appear only once, to appear only if the player carries the sun with them, where and how to place the colliders that way, that it doesn't distract the player from making puzzles. All in all, a lot of issues and attempts to find solutions.

Besides the coding for the dialogues, I changed the UI of the dialogues, so it looks more stylish.



New UI of the dialogues

In addition, I continued working on the animations. I added the animation of number appearing after the wires task and after the bee hives task. For the puzzle with the bee hives, I also implemented a particle system, so it looks like the bees fly, and there is also a sound of the flying bees, which I attached to the animation. I was a bit confused about how the sound should work: is it heard only in the area of the bee hives? or is it heard only, for example, for 10 seconds and then it stops, so it doesn't annoy the player? And I chose the second variant, as it seems more logical for me.



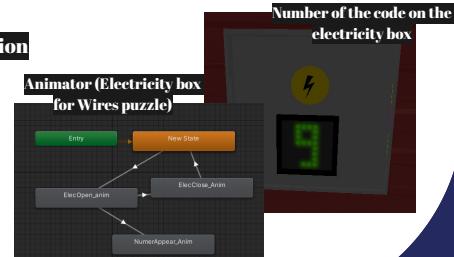
Animation (Bee Hive puzzle)

Script for the animation

```
void Start()
{
    name = GetComponent<Interactable>();
    aud = GetComponent<AudioSource>();
}

public void CheckOnInteract()
{
    int len = 0;
    if (len < 3) : len = tempLength;
    for (int j = 0; j < len; j++)
    {
        if (delayedParticleIndex[j] == acceptedTasks.Length)
        {
            if (delayedParticleIndex[j] == acceptedTasks[0])
            {
                aud.Play();
            }
        }
    }
    if (len == 3)
    {
        isDelayed = true;
        if (CheckInteract())
        {
            aud.Play();
            aud.SetVolume(0.5f);
            aud.Play();
            aud.SetVolume(0.5f);
            aud.Play();
        }
    }
}
// Update is called once per frame
void Update()
{
}
```

Animator (Electricity box  
for Wires puzzle)



Number of the code on the  
electricity box

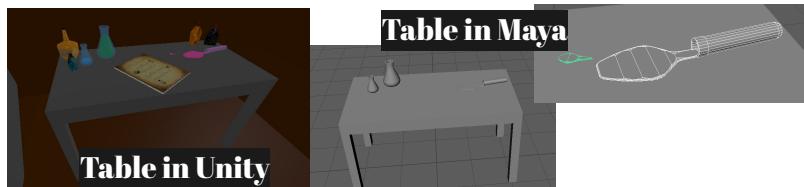
After a few days after working on the dialogues **between the sun and the player** I decided: we need to change the concept and delete these dialogues. It was one day before the deadline, by the way, but I wasn't scared as I was sure that it was a right decision. So I talked with my teammates and explained why I think so:

- 1. If the player carries the sun while doing the puzzles, it distracts.**
- 2. Dialogues between the sun and the player work strange and have issues.**
- 3. The "Pick Up" script, that is attached for the sun influences player's movement and creates some other strange issues.**
- 4. The things that the sun explains to the player are not that interesting and necessary, so they can be explained, just by a little text hint in the upper left corner.**

All in all, the interaction with the sun causes much more problems then benefits, and it is impossible to solve out all these problems in 1 day. But even if we had more time, it is more rational to spend this time on improving environment, add interesting puzzles and animations, than on improving boring dialogues and mechanics. So, in the end, we changed the idea a bit, so now the goal of the game is to find the sun at the end and put back on the sky, but not find it in the beginning and carry the whole game.

To make this new concept work, I finally finished the tunnel under the barn. This tunnel lead from the farm to the town and has a little bunker in there.

Talking about bunker, I added there a bed, some boxes and the table. This is a table of the scientist, as it has some test tubes and flasks on it. The idea is that maybe the mysterious scientist friend Jerry (who is the friend of the main character) spent some time in this bunker, making experiments and trying to prevent the apocalypse.



The last feature that I would like to mention are the text hints, that I added.

To make the game understandable for every player, I attached the text explaining what controllers should be used to interact with the certain object.

```
public GameObject PressText;
public Manager player;
void Start()
{
    PressText.SetActive(false);
}

private void OnTriggerEnter(Collider other)
{
    if (other.tag == "Player")
    {
        PressText.SetActive(true);
    }
}
```



All in all, this week was productive I am really happy that my team supported me in the decision of changing the concept of the game a bit. However, I am upset that making the dialogues between the sun and the player turned out to be too difficult for me and I didn't manage to do it properly.

# Week 10

## Tasks of the week

New textures

New skybox

Start working on the tractor 3D model

Textures for tractor

Animations for tractor

## Process description and screenshots

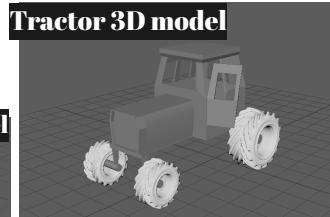
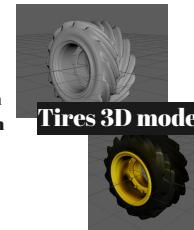
During the whole previous part of the semester I was working and feeling that the final deadline is not soon and I still have a lot of time to work on the project. After the Vertical Slice Milestone I realized that 2/3 of the semester already gone, so from that moment I need to structure my work better. Of course, I understand that I have a lot of extra tasks, that I will not be able to finish by the final deadline. Therefore, I made a timetable for myself. In this timetable I defined the tasks for each week until the end of the semester.

The first and most important thing was to add interactive tractor to the field. The idea was to add in the field the tractor, that the player can interact with.

The main interaction is that the player can turn on the radio and listen to some music.

I consider this feature as an important one, as, from my point of view, the game has enough puzzles that are directly connected to the main story and the player can't skip them. However, there is a lack of objects in the game, that the player can interact with only for fun, only if they want to. Such interactive objects make the game more interesting and the environment

more "alive" and explorable. I started this process of work from making 3d models of the tires and tractor itself. Then I worked on the textures and the animation of opening door.



Tractor 3D model



Another feature that I added and would like to mention is the skybox. Before the Vertical Slice our skybox was just downloaded from "sketchfab". The only thing that I changed in it was its color, as I made it more green than blue. But the "Art for Games" class inspired me to work on the skybox more. We had a homework to create a concept art, but not for our project, but for the project of some classmates. Augustina chose our game and created this incredible concept art. The main thing that I liked about it was the combination of the dark blue sky and orange light. So, I discussed it with Marianna and we decided to implement this color scheme in our game, by making dark blue skybox and an orange light near every puzzle to guide the player this way.

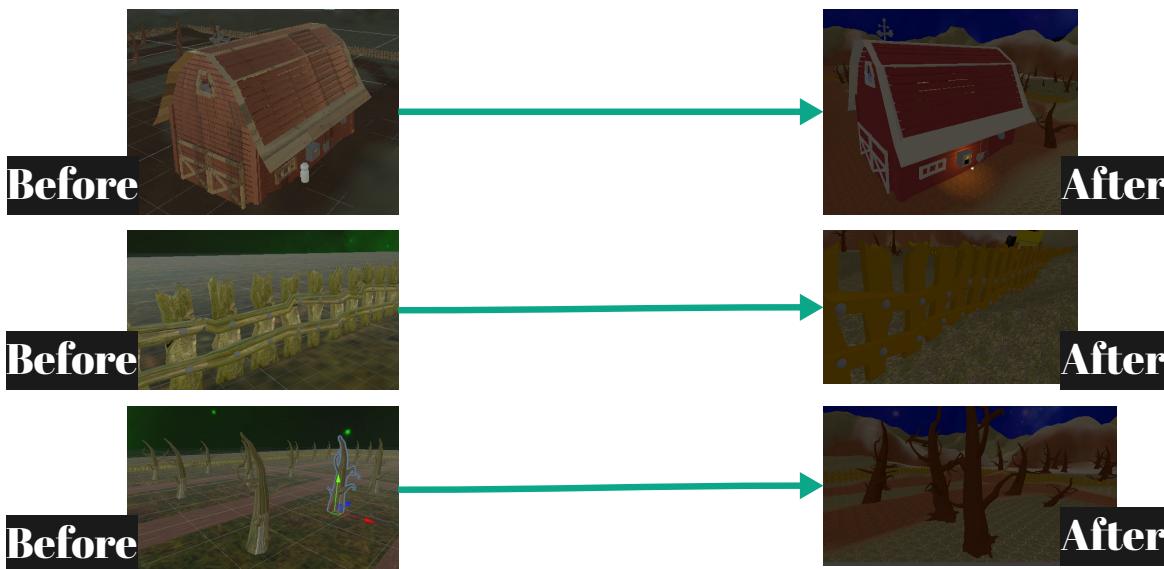


Inspiration



Skybox texture  
in Photoshop

Also the vertical slice, for sure, helped to gain a lot of valuable feedback. For instance, one of the classmates said that because of the textures, seemed like the game didn't have one exact style. For that reason, I deleted all realistic textures from the game, replacing them with solid colors. I believe that it was right decision for the following reasons: in our team we don't have very experienced people in 3D modeling, texturing and etc. And 99% of the models in the game are made by me and Marianna, and at the early stages of the project we didn't know anything about 3D modeling. Because of that, at the beginning of the semester we didn't define a concrete style of the final game, we were just trying to do our best. So, it was important at the later stage of the project, when we already have better skills, to work a bit on the general style of the game.



All in all, even though after the Vertical Slice I felt a bit tired, I managed to do some not very big, but useful changes in the project.

# Week 11

## Tasks of the week

Details of tractor model

Radio sound animation

Street lights

Interactable water

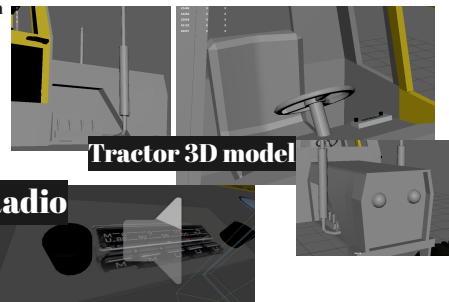
Waking up animation

Sketch of tetris UI

## Process description and screenshots

Week II was a bit more responsible one, than the previous week, as we were preparing for the "Playtest Evening". I think that I wasn't really nervous about the playtest evening, as I knew that our team has enough stuff to show, but I was interested, whether people like the game or not. And to make people's experience from playing the game nicer, I concentrated on a few thing that could help it.

First of all, I continued working on the tractor model and its mechanics. During the week II I finally implemented the main mechanic of the tractor, which is that the player can turn on the music inside of it. First of all, to make it work, of course I needed to finish and polish the 3d model, especially the inside of it. So I took time to work on such details as car seat, radio with volume adjusters, steering wheel and different screens on the panel near it. Next step was the sound animation, as usual I made some scripts for that and then started to work with the sound itself. My final concept turned out to be more complex than I thought in the beginning. Using the AI I created a sound from text and this sound mentions the character "Jerry", who is the friend of the main character of the "Dark Light" and who is also mentioned in the notes. After some speech the music starts. I decided to connect the sound with the plot, so the tractor makes sense to the main story and can be a useful addition to the main puzzles.



Tractor 3D model



The street lights were also added in the order to make the game more atmospheric. And it is also worth mentioning, that the lights activate when the wires puzzle is solved. In my opinion, it is more satisfying for the player if they see that their actions in the game has a noticeable influence. So, the street lights help to give the player this feeling.



Turned Off



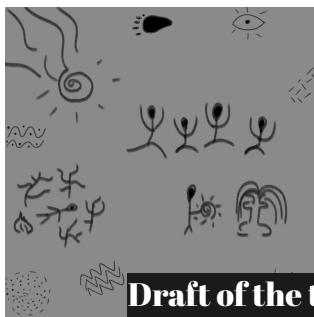
Turned On

Another animation that was added this week is the animation of the main character at the beginning of the game. I feel like the game has an interesting story, which is important. That is why it is essential to immerse the player in the story and the atmosphere of the game from the first seconds of the game. So, the animation in the beginning has sound of explosion and some canvas that creates the feeling, that the main player is waking up because of the loud sound of the falling sun.

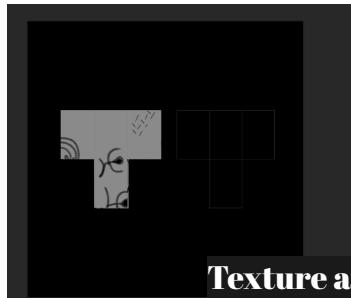


Animation of the main character

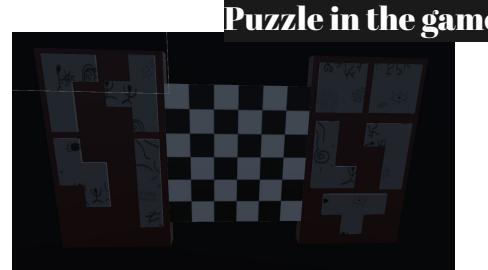
It was also important to make the Tetris puzzle easier BEFORE the Playtest Evening, as many people found it too difficult and they were stuck at this moment of the game. So, it was decided to implement the texture on the pieces of the puzzle to make the puzzle easier. For that I created a drawing (which was just a draft) and attached it to the UV of the puzzle pieces. And it is worth mentioning that the drawing is made as a ancient rock painting, as the puzzle is in the cave.



Draft of the texture



Texture at the UV



Puzzle in the game

In conclusion, I am proud that I finally finished the tractor model. It made me realize, how much I have learnt about the 3D modeling and how much I developed my skills. Also, implementing the drawing to the tetris puzzle was a long and boring process, but it made me work a lot with the UVs and Photoshop, which is definitely useful for me.

# Week 12

## Tasks of the week

Interaction with gnome

Sound for tetris puzzle

Removed water from bunker

Orange light for puzzles

## Process description and screenshots

The review of this week I want to start with my feedback for the playtest evening.

In general, it went well. We gained a lot of useful feedback and ideas of how to improve the game. However, I wasn't really satisfied about the fact that the game should have 3 locations, but at the playtest evening we showed only 2. A couple of weeks before the "Vertical Slice" all members of our team decided that at the "Vertical Slice" we show only two locations (Forest and Farm) and for the "Playtest Evening" all three locations are already added(including the Town), so we have enough time to test it and etc., before the final deadline. Pretty sad that it didn't happen, but we gave Mike some additional time to finish the 3d models for the town. Marianna and I asked Mike to share a bit of his progress and show some 3D models for the town (as we didn't see any progress at it since the 3rd week). Unfortunately, nothing has been still shown to us, which started to make us frustrated. But we gave some more time and waited.

Talking about my working process, I was mostly concentrating on fixing the things, that people didn't like at the playtest. For instance, almost every person who was playing our game, was trying to interact somehow with the gnome, standing in the garden. That is why,

I made it possible to interact with it. When the person comes close to the gnome, they can click "E" and the sound and the animation of the gnome's hat will be activated. I hope that the players will find this feature funny and entertaining.



Before animation

During animation

What is more, I polished the visual part of the tetris puzzle more. As last week I made only the draft of the drawing, this week I created a proper texture, which is more detailed. Also many people said, that the puzzles should have had some sound or animation that indicates that the puzzle is solved. I think it is a very good observation, that is why I added the sound that is activated when the tetris puzzle is solved. The last little change is that I attached the light to the puzzle because it used to be too dark and the drawing was barely seen.



All in all, I am happy that we had playtest evening and I heard some constructive criticism that I can use to make the game better.

# Week 13

## Tasks of the week

Start fountain 3D model

New scene with fountain

Transition between scenes

3D model of the fishing rod

3D models of the flowers

Water in the fountain

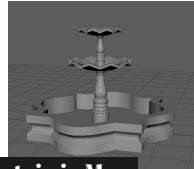
⊗ **Not done** ⊗

Add grass to the farm

## Process description and screenshots

This week started a bit stressful, as we had only two more weeks to finish the game and the 3rd location was still not ready (not ready a lot). Marianna and I were discussing what we can do about and we couldn't decide. For that reason, we had a discussion about it with the professor and after that we made a decision that we need to find some other way to finish the game and use our creativity. So, in the end, we added two new locations: crater and fairy mountains. The crater location is supposed to be the place where the sun fell and where the player finds it. The fairy mountains scene is a magical, very bright and fairy location where the magical fountain is placed. The main idea of this location is to be in contrast with all previous ones; it is bright, colorful and etc.

I, personally, concentrated on the fairy mountains map. This map is small and the main part of it is the fountain. I took a look at some references and started working in the 3D model. The most detailed and difficult part of it was making mosaic on vertical bases. I put a lot of time and soul in it, because I think it makes the fountain much more interesting and beautiful. However, I didn't take into the account one important fact. The water, that I added to the fountain in Unity overlaps the mosaic and makes it not visible enough. But I made the water as transparent as I could.



Fountain in Maya



Mosaic



Mosaic under water

Talking more about water, I made it using particle system and I suppose, it looks more like a smoke, than like a water. Unfortunately, now I don't know a better approach for it and I don't have time to change it. Besides the fountain model, I added trees to the scene. For that I reused my old tree models that I use in the farm, but added 3D models of the flowers to them to make trees look more alive and fairy.



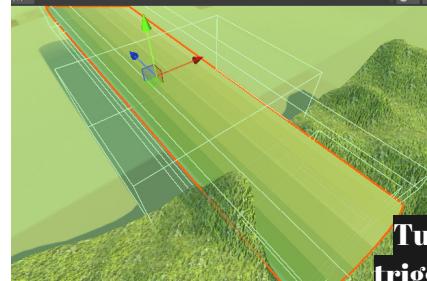
Tree before



Tree after adding flowers

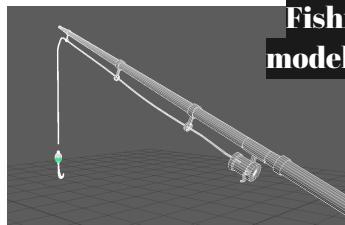


**Moreover, it wasn't possible to merge all maps in one Unity scenes, so I had to make trigger colliders and a script, that allows player to go from one scene to another. All maps have tunnels through which the player goes from one scene to another.**



**Tunnel with  
trigger collider**

**Besides the new scene, the Farm map also required some changes. For the one new puzzle, which is fishing, I made a 3D model of the fishing rod.**



**Fishing rod  
model in Maya**

**Finally, to the river I added a 3D model of the sign, which indicates "dangerous area". The player is stopped by this sign and can't go further. This was necessary to designate a specific area of the river that the player can explore.**



**All in all, during this week we faced some difficulties, but I am happy that we solved it out. This solution requires additional work, which makes two last weeks of working on the project more difficult but I believe I will manage to finish everything in time.**

# Week 14

## Tasks of the week

Finish fountain 3D model

New skybox

More flowers

Final animation of the sun

Add cut scene

Add grass to the farm

Tractor light animation

Text on the hay

Add more sounds

## Process description and screenshots

Well, the most responsible and important week. In general, I tried to concentrate more on polishing, not on adding something new. But still, there were some features that I wanted to add anyway.

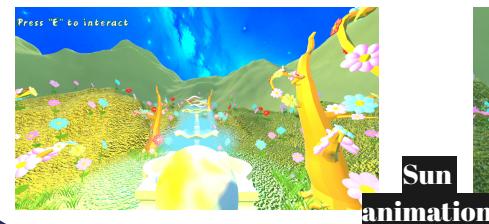
Firstly, about the Fairy Mountains scene. I finished the 3D model of the fountain by adding a kind of circle, where the sun is supposed to be put. Plus, to make location less empty, I added flowers and some grass to different places of the terrain.



Finished fountain model

New skybox and the  
scene in general

So, the main thing for this week was the final animation of the sun when the player puts it on the fountain. And this animation made me confused for a few days. The issue was that the sun object is placed in the "Crater Scene" and it appears in the "Fairy Mountains" scene only if the player picks up the sun in the previous scene and go with it to the next one. That is why I couldn't understand, which object I should animate. After some brainstorming, I figured out a tricky solution. I created the second sun object, which exists only in "Fairy Mountains" scene and which is disabled by default. But when the player clicks "E" and the animation starts, this animated sun appears, and the one that the player holds, disappears.



After the sun animation the cut scene started. To make the cut scene, I used already existing 3D models, made them lighter, added more colors and etc., so in the result, it looks like the old locations became not postapocalyptic. After that I made screenshots and put the in the cut scene and added some animated objects, clouds, fish and text to make the cut scene not static.



## Cut scene



To the Farm scene I implemented some final changes. First of all, I added 3D grass. Secondly, I created one more animation for the tractor. Now the player can turn on the lights of the tractor, which allows to see the "help" text on the stack of hay.

Finally, I worked on some more sound for the puzzles and animations.



## Tractor light on



# **Final feedback**

**Well, what can I say about this semester project experience in general.**

**I will start with the positive feedback. The main and the most important for me is that I gained a lot of practical experience in 3D modeling and developed my skills a lot. This project helped me to finally understand the direction in game design, which I want to learn more and maybe even choose as my future job. In addition, I gained valuable experience of working with animations, light, scripting, sounds and many other things. I am happy that I tried to work on different aspects of the game, it helped me to understand which parts of the game development I am interested in and which I am not.**

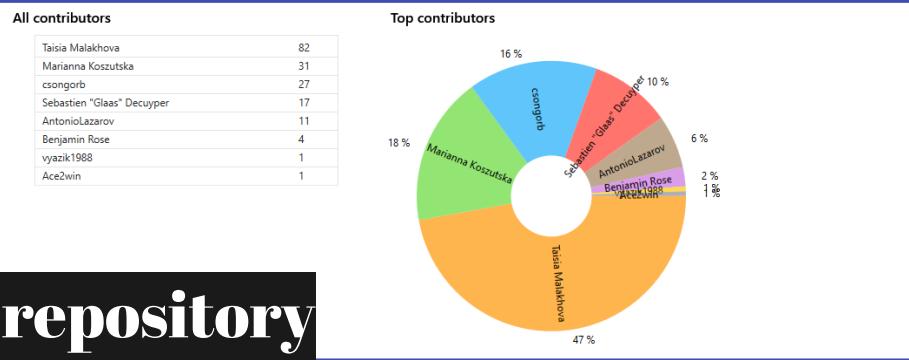
**Moreover, I have been working on such a big project for the first time. Because of that I faced some problems with time management, communication issues with the team members and etc. However, I organized my process of work much better, than I did last semester, while working on the project. It means that I learn and do not repeat my old mistakes.**

**Talking about the main difficulties, I would say that the narrative design of our game has become a bit messy at some point, which caused problems with the other aspects of the game. I think the biggest mistake of our team was that we started making the game and were creating the story during the development process. It would be better if we came up with the concrete story idea before the actual development phase.**

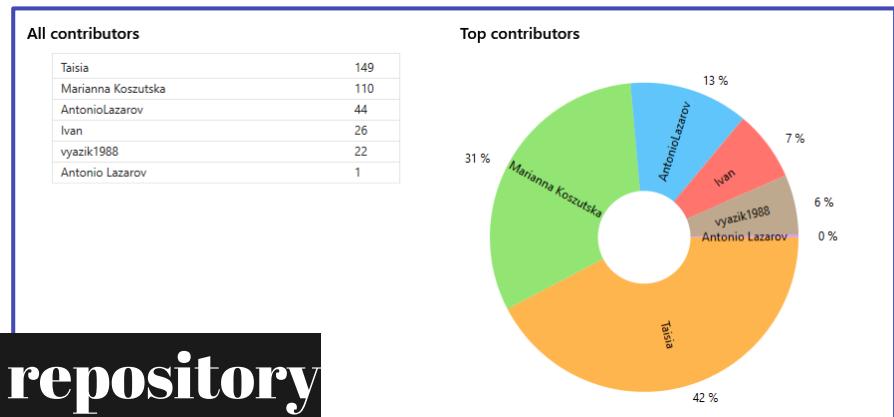
**However, in spite of all difficulties, we managed to finish the game and I am happy about it. There are a lot of ideas that I didn't manage to implement into the game but still, the experience that I got is the most important thing for me.**

# Repository statistics

Old repository



New repository



**Thank you  
for your  
attention**