

Project Report
on
Global Warming

submitted in partial fulfilment of requirements of the degree

Master in Design

By
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Guide:
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IDC School of Design
Indian Institute of Technology, Bombay

Approval

Animation project 3

The animation project entitled “ Global Warming“
by Eshwar Kumar G B, 176340001 approved as a partial fulfilment of
post-graduation degree in animation.

Prof. Mazhar Kamran
[Project Guide]



Internal Examiner



External Examiner



Chairperson



Declaration

I declare that this written submission represent my idea in my own words and wherever others ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have not misrepresented, fabricated or falsified any idea/fact/source in my submission to the best of my knowledge.

Signature:



Eshwar Kumar G B

176340001

M.Des (Animation)

IDC School of Design,

IIT-Bombay

Date: 17/6/2019

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I would like to thank my batchmates and friends for their unconditional support throughout the project.

And finally thanks to my family.

Signature:



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Abstract

This animation short film is based on the story of a man, who did not leave his place after the apocalypse that occurred due to global warming and started living on a hilltop along with a dog, whom he met after losing everything in his life. He treats his dog as his kid, although the dog motivates him everyday by making him feel that he is not all alone. The reason for him to still live on the remote area is that it is bonded with his memories of his sweet daughter, whom he loves a lot. He knows that she won't be returning back but still looking for her every day. He struggles a lot in his old age but never gives up. The only sign of his daughter at present is a photo frame and her drawing, which pulls him back to his past, revealing the story of them being together and the destruction of nature separating them forever. This story also states the level of people that had reached after the apocalypse due to global warming. We will be the cause to lose our children and grandchildren and make them suffer, lack food, water and shelter if we continue to be indifferent to the consequences.

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Introduction

We the humans started making our lives easier by using all the resources of nature and polluting the environment everyday. We all are educated and well known how to preserve it though we consume the products to sustain, we also need to save or return it so that it balances the ecology. One of the significant issues in the current world is “Global Warming.” It has many terrible impacts and going to be very vigorous in future. Melting of ice glaciers at the poles is the best example. We are all bonded with relations, emotionally attached with loved ones; it's tough to imagine losing someone close to our heart. Still we are not caring about the other species who lived with us on the same planet, and we repeat the same by polluting our nature. We are destroying everything, and finally, it is will bounce back on us in a terrible way that we can not even imagine.

Research

Types of pollution affecting Nature

Air pollution

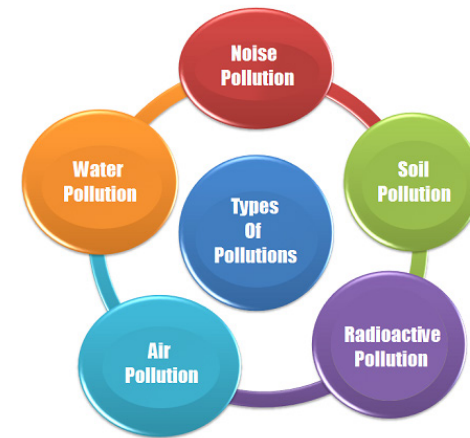
Water pollution

Thermal pollution

Radioactive pollution

Noise pollution

Light pollution



Sources and Causes of Environmental Pollution

- Industrial activities
- Dumping solid waste
- Vehicles
- Rapid Urbanization and Industrialization
- Population Overgrowth
- Combustion of fossil fuels
- Agricultural waste
- Volcano eruption



Increase of Carbon Dioxide - 410 ppm(parts per million)

Carbon dioxide is an important heat-trapping(greenhouse gas)

Realised through human activities

The first graph shows atmospheric CO₂ level measured at Mauna Loa Observatory.

The secondary shows CO₂ level during the last three glacial cycle

Life span of CO₂ is approx 100 years in the atmosphere.

Global Temperature - 0.9°C

The graph illustrates the change in global surface temperature.

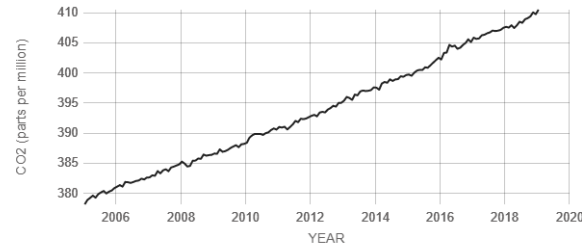
18 warmest years in the 136-year recorded all have occurred since 2001.

The year 2016 ranks as the warmest on record.

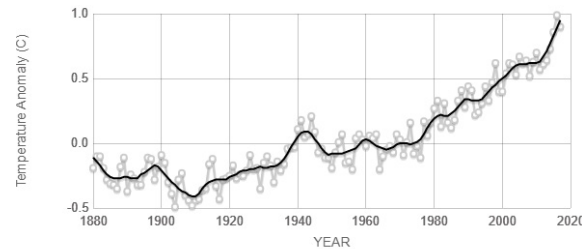
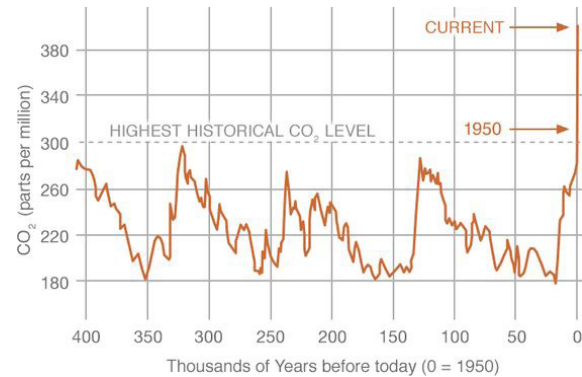
Arctic sea Ice Minimum - 12.8 % per decade

Arctic sea ice reaches its minimum each september.

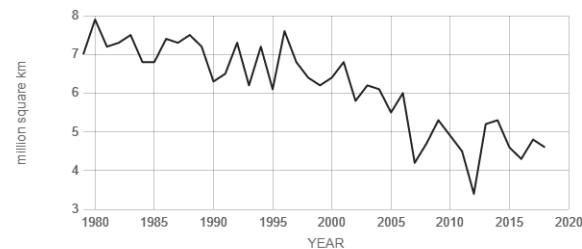
It is declining at the rate of 12.8 % per decade.



Source: climate.nasa.gov



Source: climate.nasa.gov

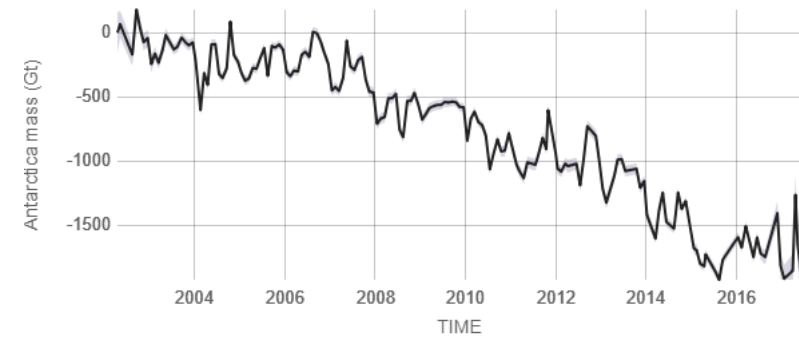


Source: climate.nasa.gov

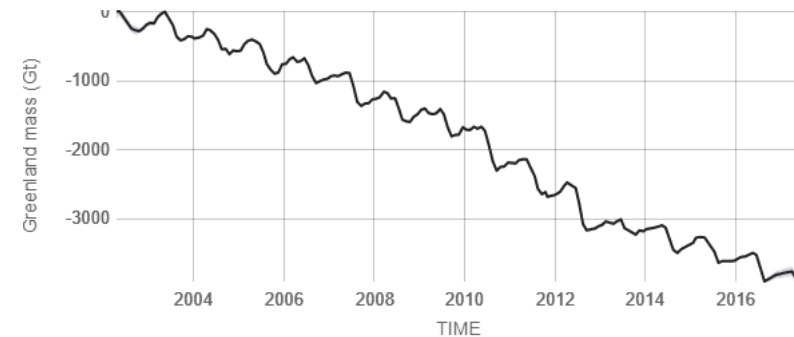
Ice Sheets - 127.0

Data from NASA's GRACE satellites shows that the land ice sheets in both Antarctica (Upper chart) and Greenland (Lower chart) have been losing mass since 2002.

127.0 gigatonnes of ice declining per year.



Source: climate.nasa.gov

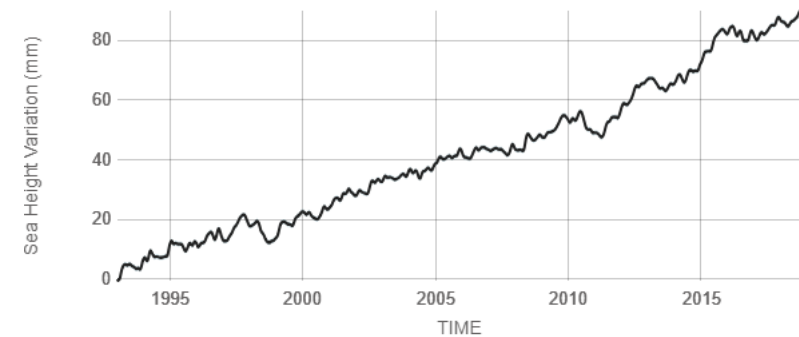


Source: climate.nasa.gov

Sea level : 3.2 Millimeters per year

Sea level rise is caused by two factors related to Global warming: adding water from melting ice sheets.

The glaciers and the expansion of sea water as it warms.



Source: climate.nasa.gov

AEROSOLS

Atmospheric aerosols are tiny liquid droplets or solid particles suspended in the air.

Aerosols can be natural or anthropogenic.

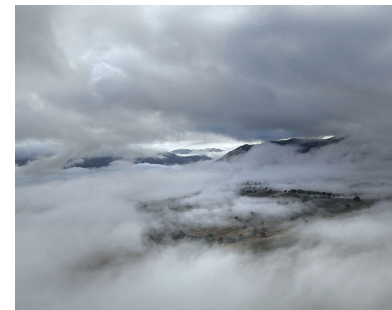
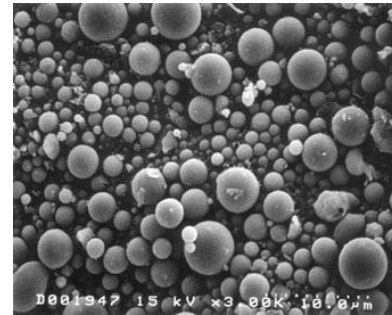
Eg of Natural Aerosols : Fog, Dust, Sea salt, Biogenic vapour from trees.

Eg of Anthropogenic Aerosols : Haze, Air pollutants, Smoke.

The Gas to particles conversion in the atmosphere is called PARTICLE NUCLEATION.

Most aerosols are brighter than land or ocean, and cool the earth by reflecting sunlight back to space.

Dark aerosols (Black carbon) can absorb significant amount of light and produce warming effect and hastening the melting of ice especially in the arctic region.



Black Carbon

Black carbon consists of pure carbon, which is formed through the incomplete combustion of fossil fuels, biofuel, and biomass.

It is emitted in both anthropogenic and naturally occurring soot.

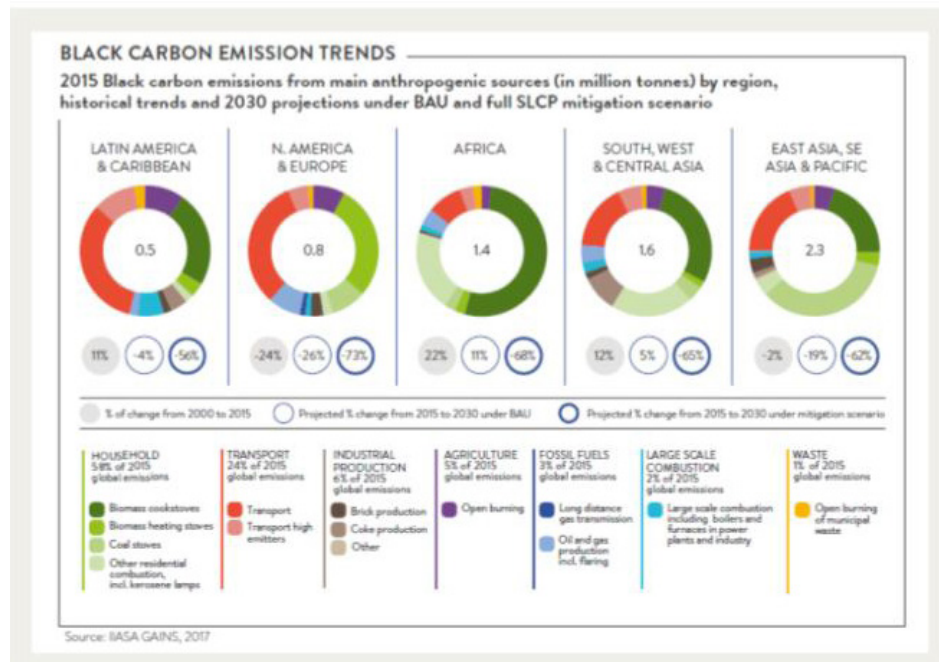
Black carbon is found worldwide, but its presence are particularly strong in Asia.

It is found that emissions of black carbon are the second-largest contributor to global warming after CO₂.

KEY FIGURES

460-1,500x	4-12 days	6.6 million tonnes	58%
Black carbon has a warming impact on climate 460-1,500 times stronger than CO ₂ per unit of mass	The average atmospheric lifetime of black carbon particles is 4-12 days	About 6.6 million tonnes of black carbon were emitted in 2015	Household cooking and heating account for 58% of global black carbon emissions

Black carbon emissions



Global warming

Global warming is nothing but rising of average temperature of earth atmosphere, this is mainly caused due to the following reasons.

Deforestation increases the carbon release which contribute rising of global temperature.

Greenhouse effect is due to the release of carbon dioxide, Methane, Nitrous oxide.

Holes in the Ozone layers due to Chlorofluorocarbons, allows the UV rays enter the surface of earth.

- Polar Bear - 22- 31K
- Snow Leopard - 3-7k
- Muskox- 0.8-1.2 Lakhs
- Narwhal - 1.7 Lakhs
- Elephant seal - 1.5 Lakhs
- Monarch butterfly - down by 14.8%
- Adelie Penguin - 1-2.5 Million
- Atlantic Cod
- Orange spotted filefish
- American Pika

- Greenland
- Europe
- Finland
- Sweden
- Iceland
- Russia
- United States
- Canada
- England



How many polar bears are there?

Current Population

22-31,000
Polar bears worldwide, estimated
source : IUCN Red list of Threatened Species

19
Distinct sub-populations

60-80%
Polar bear are in Canada

Status by country

International : Vulnerable
Canada : Special Concern
Greenland / Denmark : Vulnerable
Norway : Vulnerable
Russia : Indeterminate, Rare
United States : Threatened

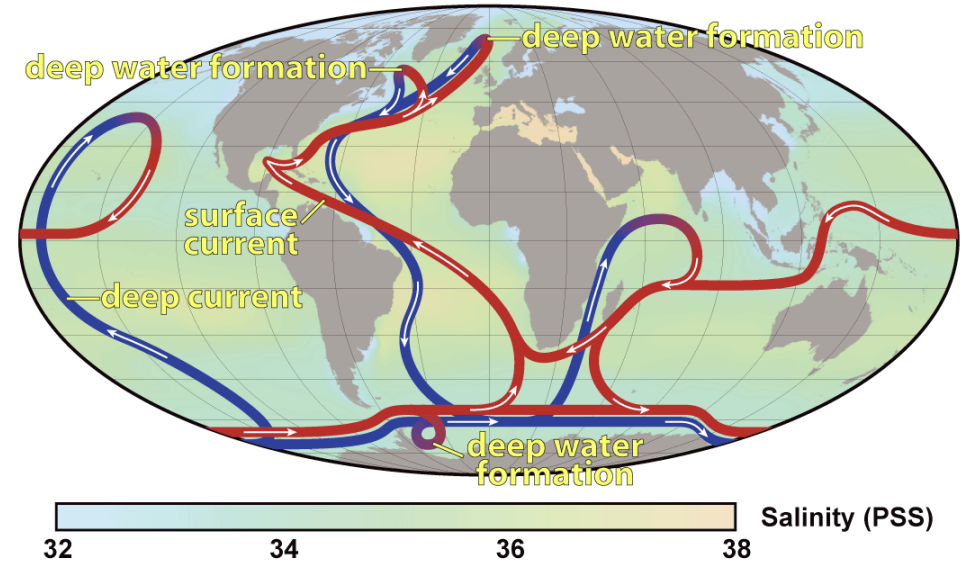
Thermohaline Circulation

- Thermo refers to temperature and haline refers to salt content
- Thermohaline are the largest scale ocean circulation
- Wind drives ocean currents in the upper of the ocean surface. These currents also flow thousands of meters below the surface. The deep-ocean currents are driven by differences in the water's density which is controlled by temperature (thermo) and salinity(haline). This process is called Thermohaline circulation.
- When the polar regions ocean water gets cold, it forms into sea ice leaving the salt behind. Therefore the density of the surrounded ocean water increases.

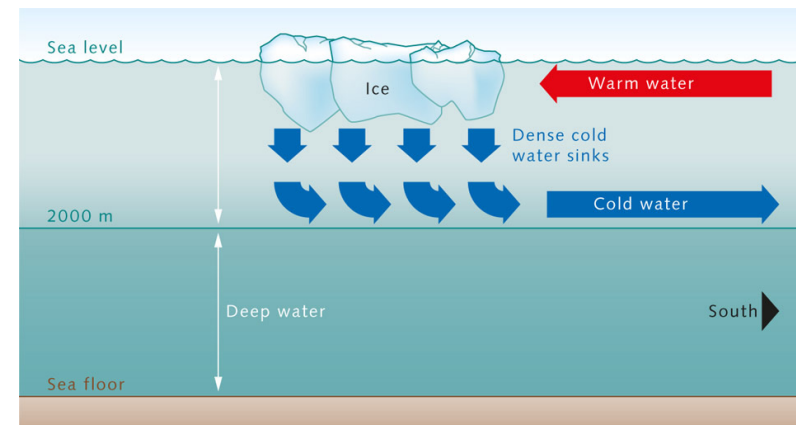
Gulf Stream

- Gulf Streams are the powerful ocean currents in thermohaline circulation which carries warm water from Pacific to Canada, Iceland, Norway, and UK.
- These currents are currently shutting down due to the melting of Greenland ice, This fresh-cool water is reducing the salinity in the ocean which is effecting the Gulfstreams.

Thermohaline Circulation



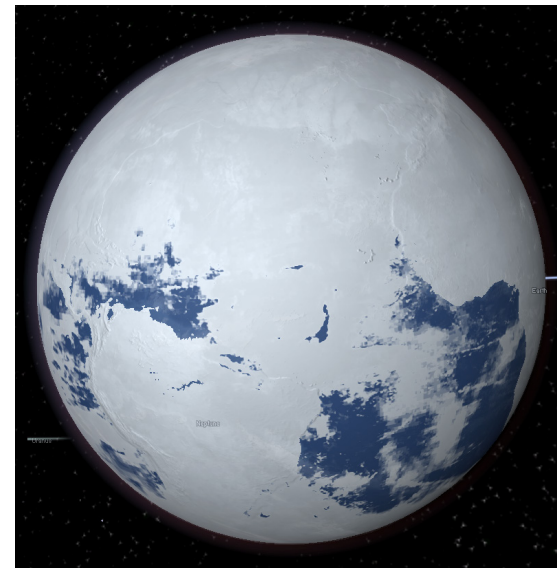
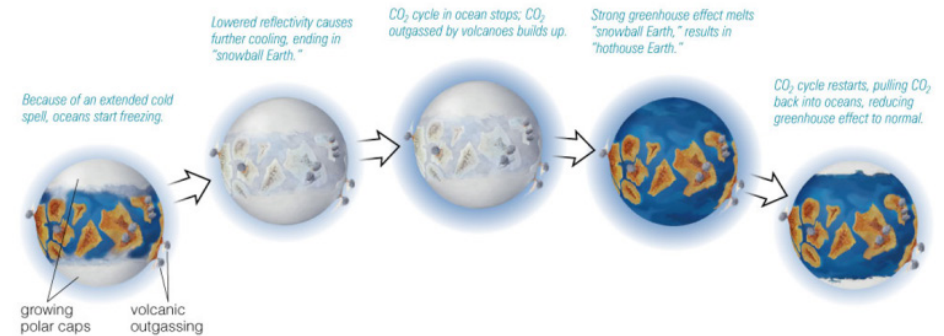
Blue paths shows the deep-water currents, while red paths shows the surface currents



Analysis

In the research, I read the cause that creates the temperature warmer day by day. We are very much dependent on nature for everything and started polluting the earth by raising the heat, which is leading to intense global warming. Following many scientists and considering the past climatic conditions, the interpretation of what global warming lead, is terrifying to imagine. Right now warming of the planet is melting away the ice glaciers on the earth. It is hazardous to life, who are dependent entirely on islands. Most of the people are worried that the amount of ice stored in Greenland, Arctic and Antarctica is melting away into the sea, due to high global warming. The temperature of planet will be more intense in the coming years, yes it is high Global warming, but according to my research and other evidence, the high amount of global warming will lead us towards global cooling in the future, i.e. our world will face a massive ice-age ever. If this happens, All living beings have to suffer a lot; Low lands will be occupied by sea. Therefore, people start migrating from the lower area to higher. Drinking water won't be available to people. Thus, there will be a war against nations for the sake of land and water. There will be substantial volcano irruptions and massive tornadoes which raise the temperature high. The warm wind from the ground carries the iron into the sea, which leads to the growth of algae; this alga sucks a tremendous amount of co2 from the atmosphere. On the other side, the melting of fresh ice into the sea increases the level of seawater and reduces the salinity of water, which stop the ocean currents carrying warm water to the poles and cool down the sea water gradually by increasing the ice level from the poles. Thus, the earth will cover entirely with ice forming a giant snowball.

Five Stages of "Snowball" Earth



Concept - 1

Human is now fighting for his life from his own pollutants to save mother nature, who is already captured by human pollutants and his activities. will he be able free her from his own pollutants to make his life possible on earth ?

Concept - 2

This story involves the origin of Mother nature and how she had created the environments and handling various seasons. Later as humans evolved, they started degrading the environment by capturing her with chains of pollutants and never making her free. If this happens will the life exists on the planet ???

Story

Interior home - morning

It is early morning; a dog starts barking, pulling the blanket of a person who is sleeping. He (a 60 years old man) wakes up with a very sleepy face and opens his eyes. He finds the dog holding a bucket with a fishing stick. He takes the bucket while tapping the dog and move out. As the man goes out, even the dog runs behind him wagging its tail.

Exterior home - morning

They both come out and stand near a rock looking down. As we see, they are looking at the boat (made using different elements). Then they both step down towards the boat. The man washes his face and mouth and gets inside the boat and then calls the dog by whistling, and then they start moving ahead, as the boat moves for some time we see that they are passing through the old houses, which got sunk in the water. They stop in a place and starts fishing after sitting down. He catches some fishes and put them in the bucket. As the dog looks through his reflection which flows to his past, recollecting the day with his mom (he is running and enjoying with his mom and looks surprisingly with the floating fishes in the air) which get him back to the present. The man goes and sits beside the dog starts curdling him, and the day ends with the sunsets

Interior home – night

We see the man putting up the fire with the help of stones. While the dog sitting beside him, he places the fish on the grill to fry, and as he looks at the fish, it blinks the eye and moves in the water, taking him into his past. We see a baby girl jumping in the water and playing with her father. He says his daughter to stay calm and tries to hold the fish and burns his fingers while coming back to his present day. He then fries it completely and gives the food for the dog, and moves towards the table. He picks up the photo frame. When we see the photo, it is a young age of him with his daughter cycling happily, which dissolve into the back story.

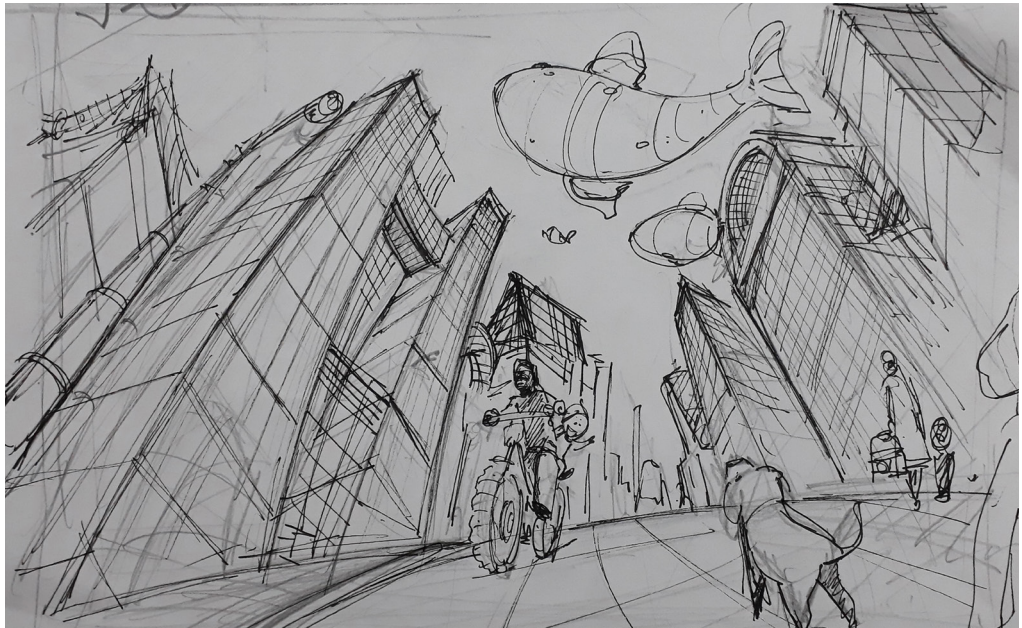
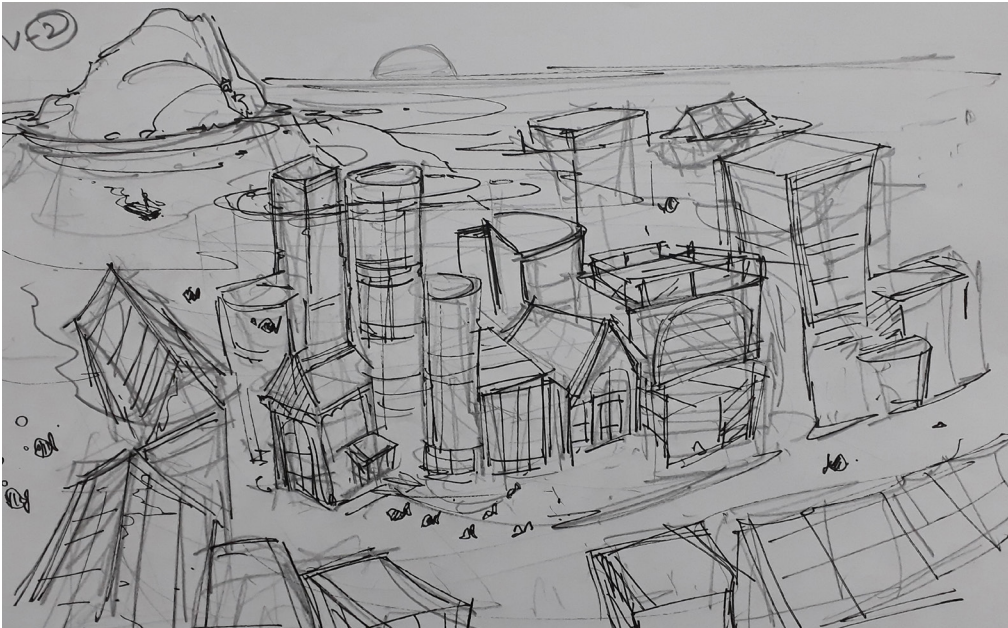
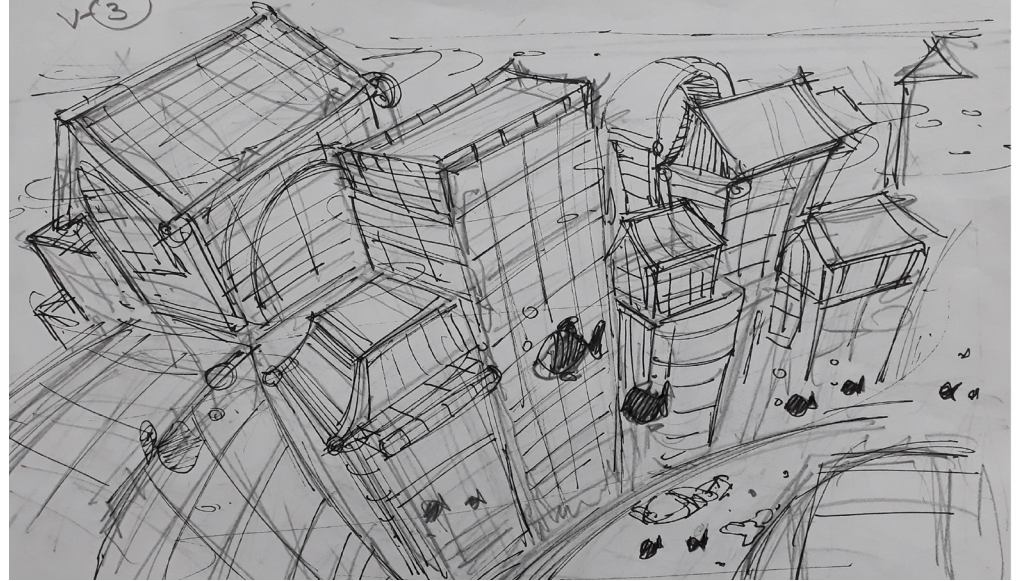
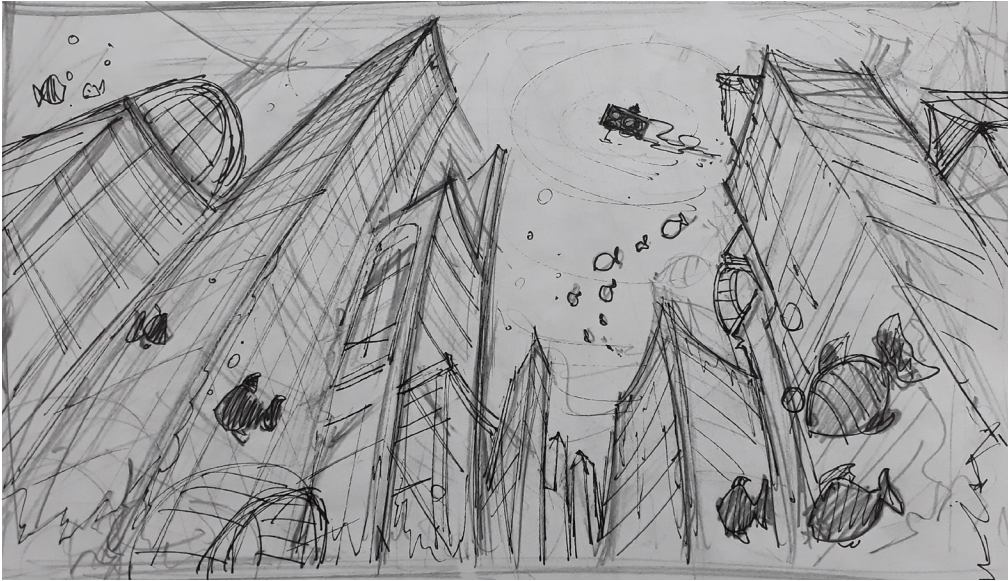
Exterior city – day

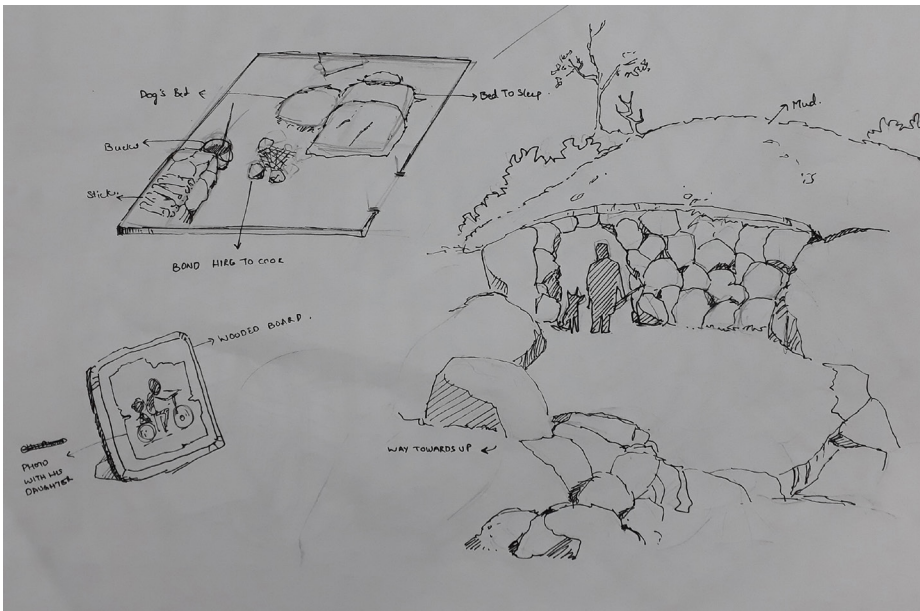
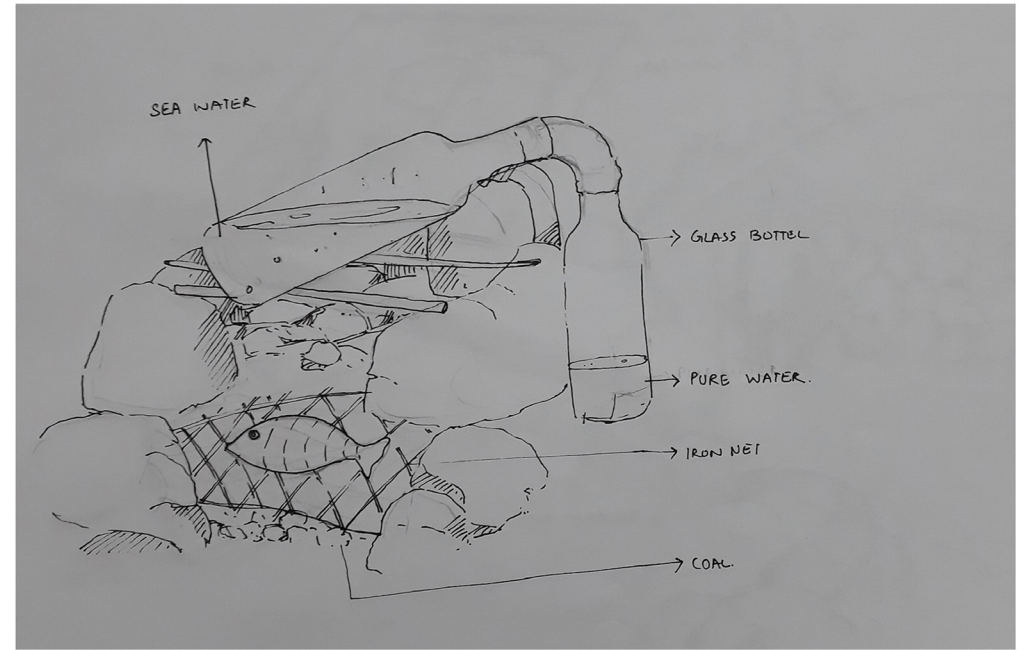
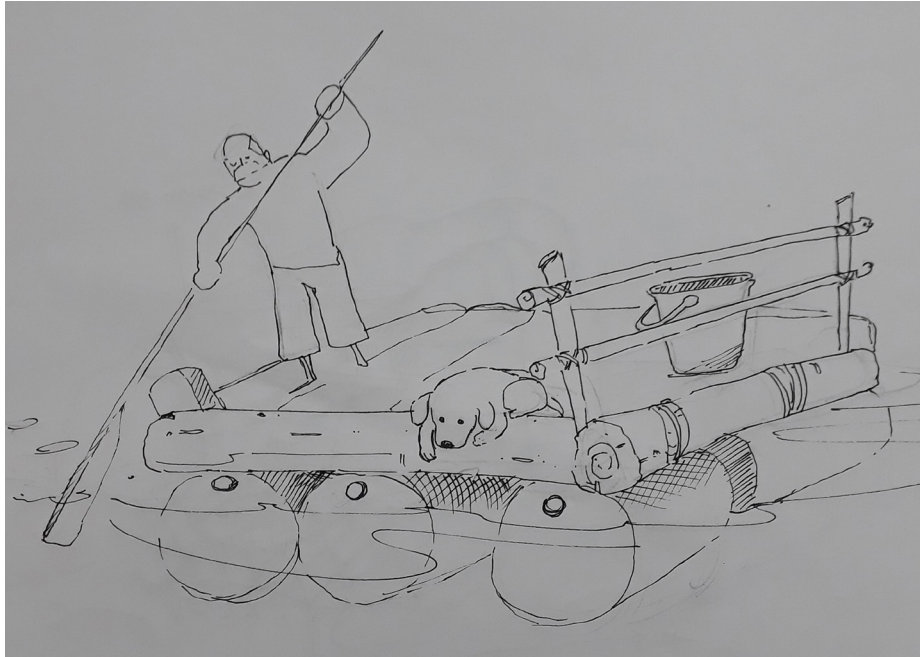
A 28 years man, cycling along with his daughter to school. While on the way we see that the fuel stations are closed saying No Fuel anymore and it occupied with some of the vendors, where he buys a carrot and gives to her. She then coughing vigorously and then takes the carrot and have it and starts smiling by saying bye, while going inside the school. The man look at her going inside and then looks up, as we see there are some industries releasing fossil fuels into the sky later the time-lapse and kid come back to her father running and hugs him, he lifts her up and smiles. But suddenly they hear birds moving away from the place. He turns back and notices the buildings are vibrating, he won't understand what is going on, and suddenly a vast amount of water gushes into the city breaking the buildings. He gets shocked and runs very fast and fast as much as he can holding his daughter. The water rises and chases the roads with great force. As we go close, the water is almost back of him blacking out.

Exterior city – day

He is lying on the top of a building, wakes up as the sun rises. he searches for his kid, but he is completely isolated and covered with water all around. The entire city got sunk in the water with no sign of people anywhere. He screams out louder because he is helpless and starts crying due to his loss. A small hand touches him, when he looks up, he finds his daughter sitting beside him, he is surprised to see her. Who dissolves to a puppy and then he smiles while lifting him up in his hands, then his attention goes on the hill. As the camera zooms-in to towards the hill, we start hearing the dogs barking. The man wakes up in the present and sees the dog with the bucket and fishing stick, he takes the bucket and opens the door and get astonished to see, while the cool breeze with snow flakes passing through the shoulder of him and the dog. As we look, the entire area turns into an ice-land. He makes his heart strong and steps ahead for fishing. As we pan through the footsteps of them and fast zoomout into space, we see the earth got completely covered with ice.

Previsualization



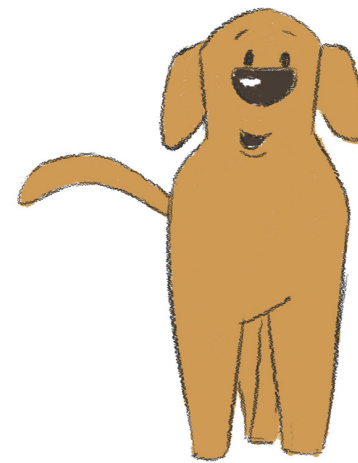
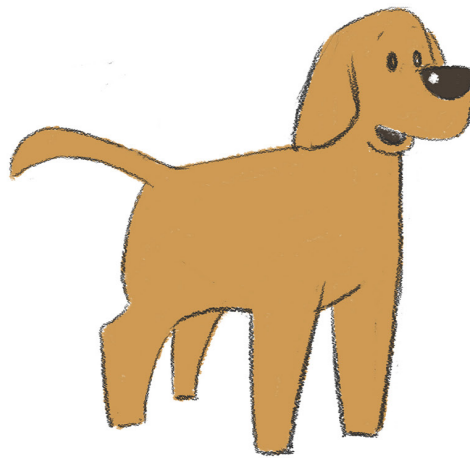
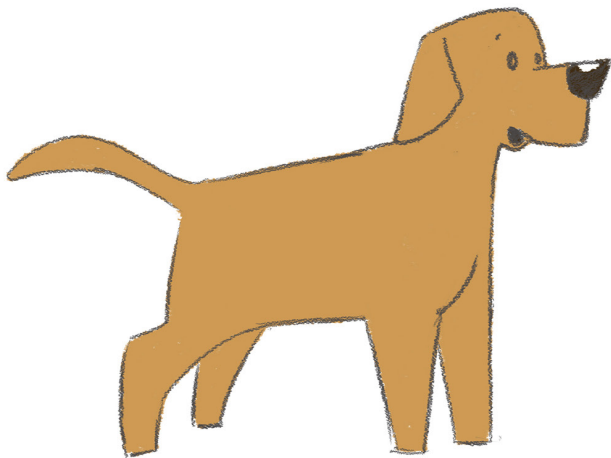
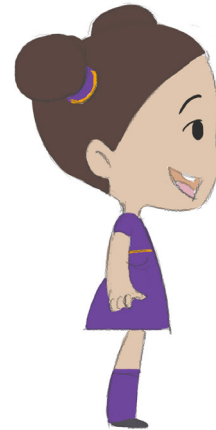




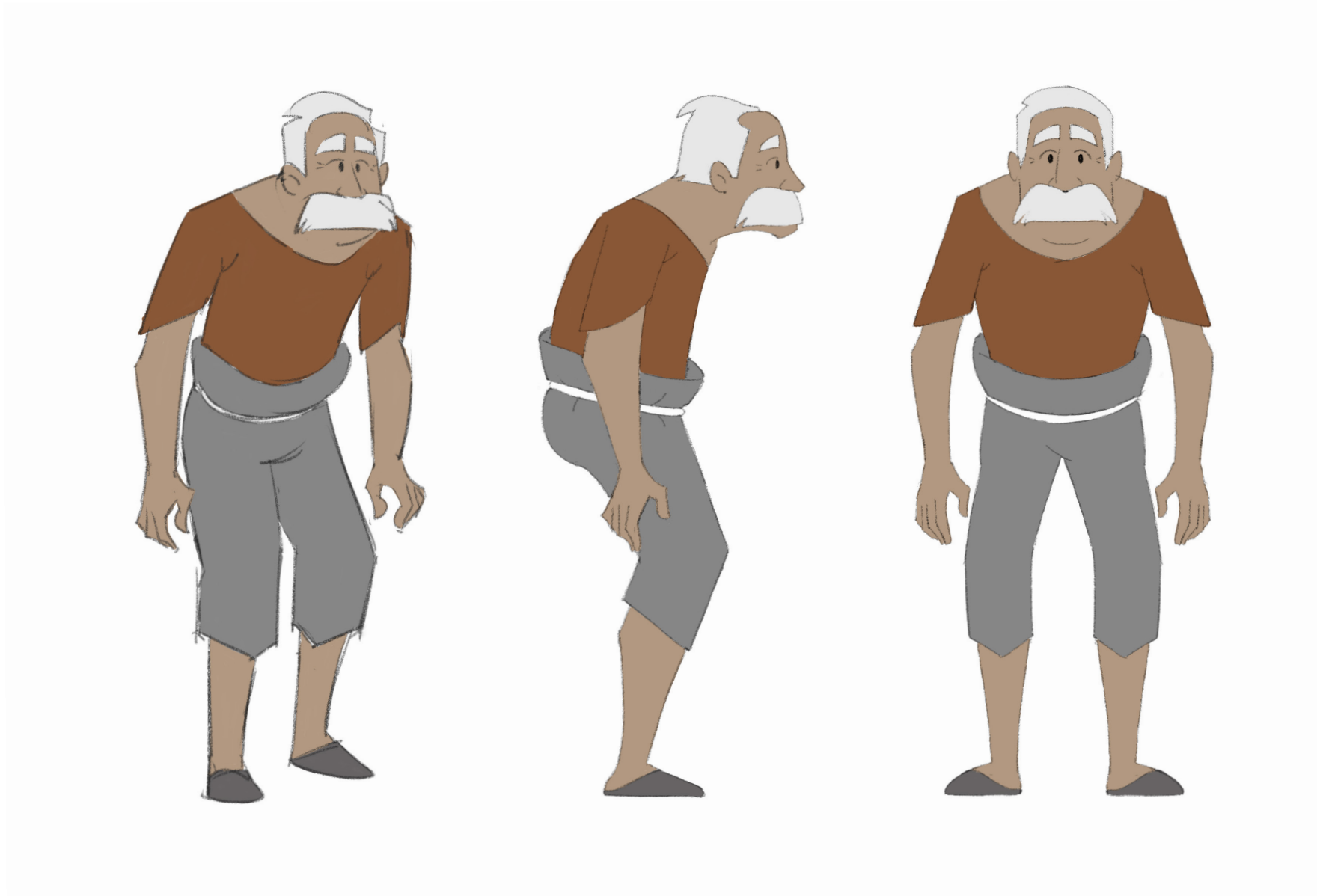
Character Design and Exploration



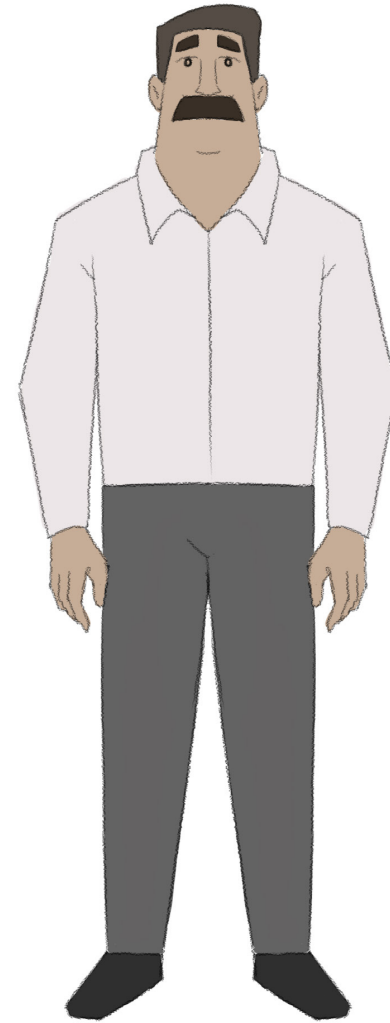




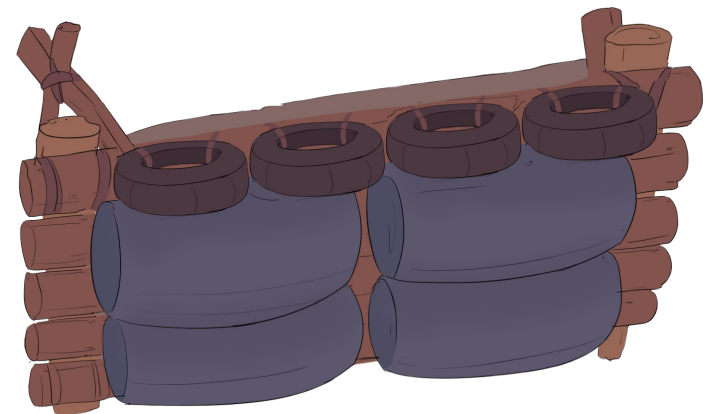
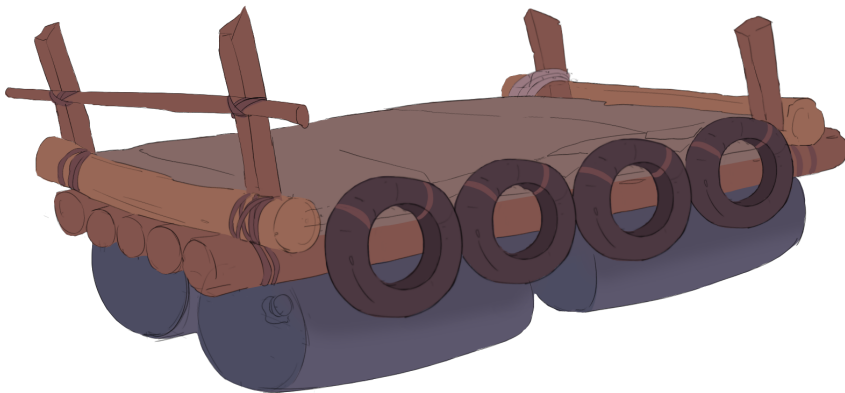
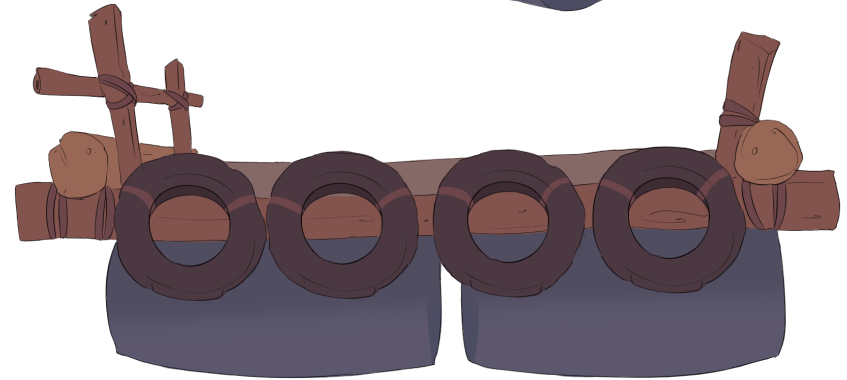
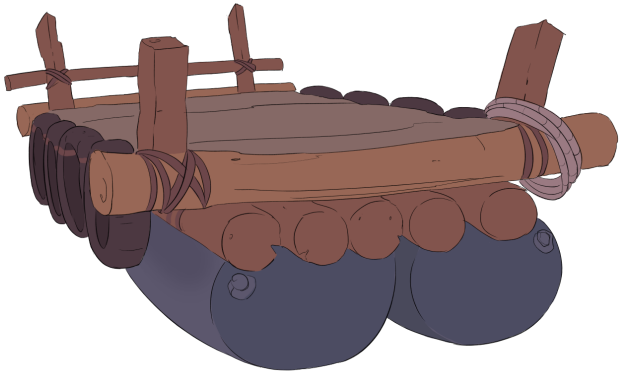
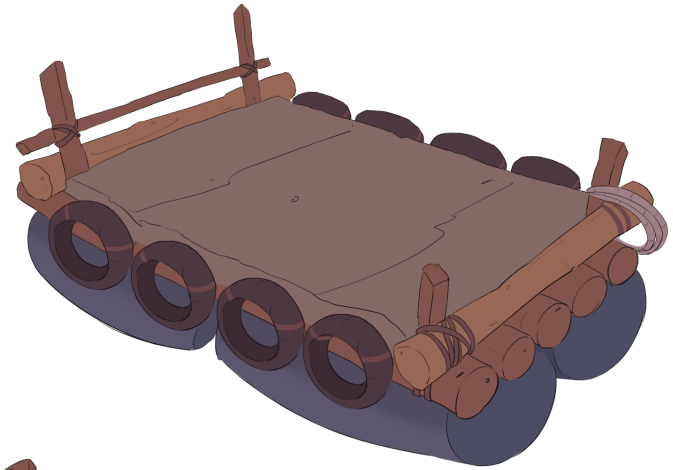
Character Turnaround



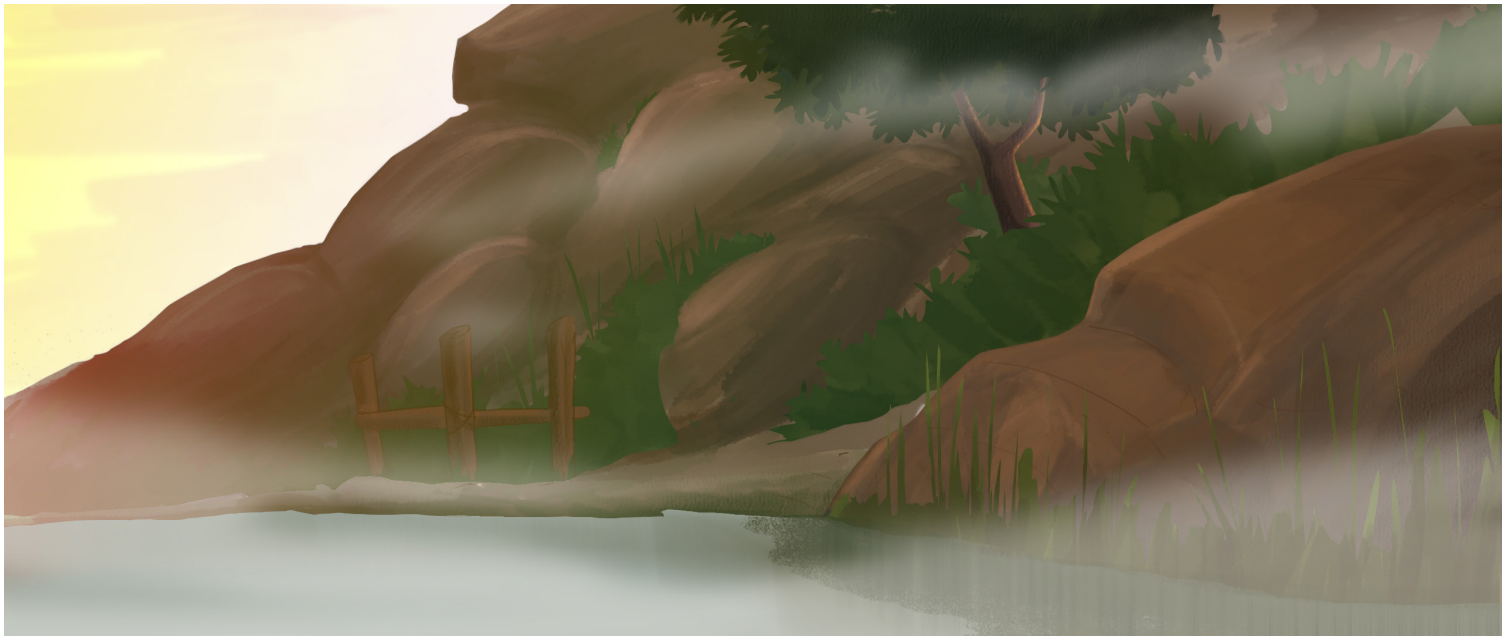




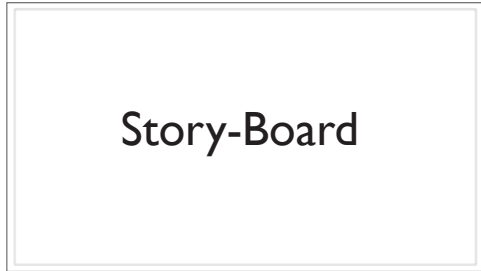




Background



Scene	Duration	Panel	Duration
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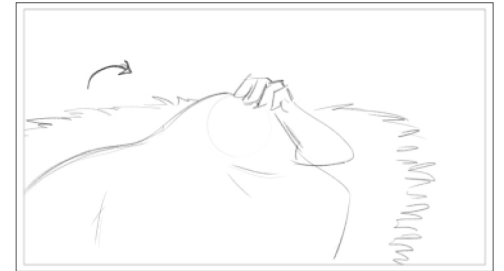
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Scene	Duration	Panel	Duration
3	01:00	1	01:00



Scene	Duration	Panel	Duration
4	01:00	1	01:00



Scene	Duration	Panel	Duration
5	01:00	1	01:00



Scene	Duration	Panel	Duration
6	01:00	1	01:00



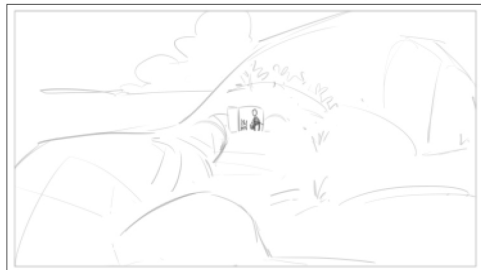
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Scene	Duration	Panel	Duration
8	01:00	1	01:00



Scene	Duration	Panel	Duration
9	01:00	1	01:00



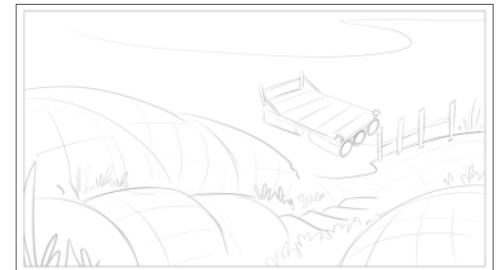
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Scene	Duration	Panel	Duration
11	01:00	1	01:00



Scene	Duration	Panel	Duration
12	01:00	1	01:00



Scene	Duration	Panel	Duration
13	01:00	1	01:00



Scene	Duration	Panel	Duration
14	01:00	1	01:00



Scene	Duration	Panel	Duration
15	01:00	1	01:00



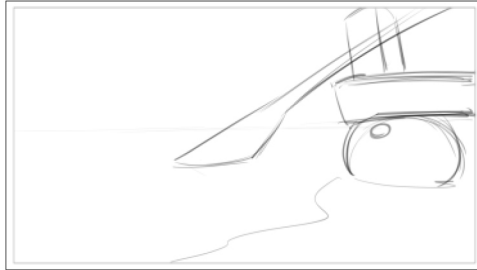
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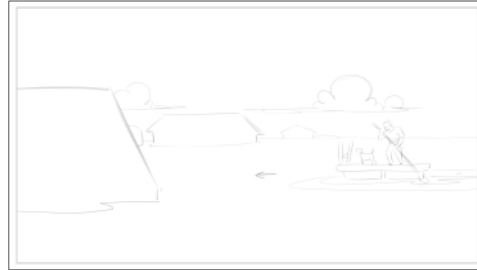
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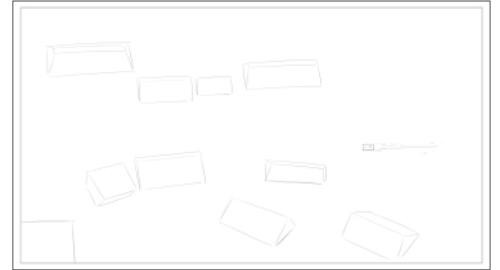
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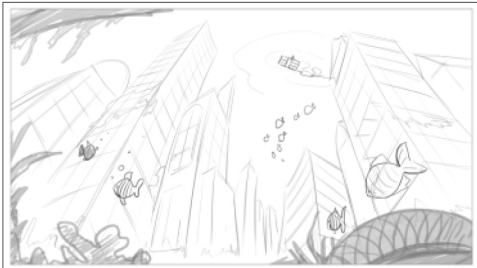
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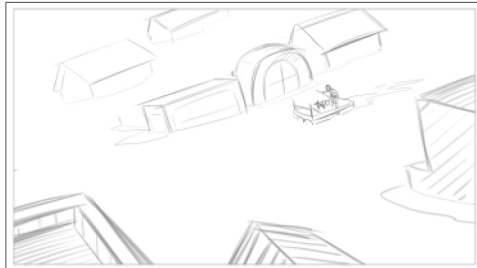
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Scene	Duration	Panel	Duration
21	01:00	1	01:00



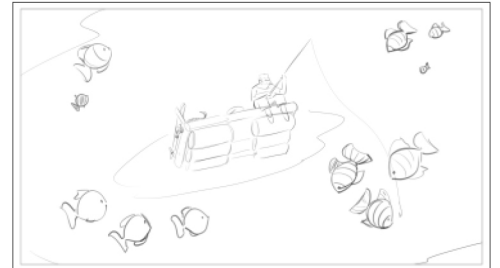
Scene	Duration	Panel	Duration
22	01:00	1	01:00



Scene	Duration	Panel	Duration
23	01:00	1	01:00



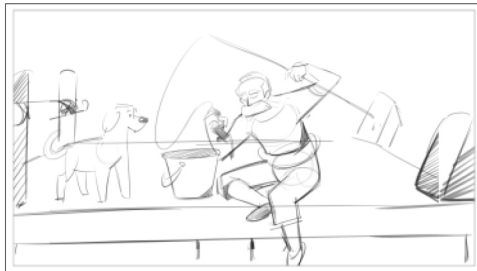
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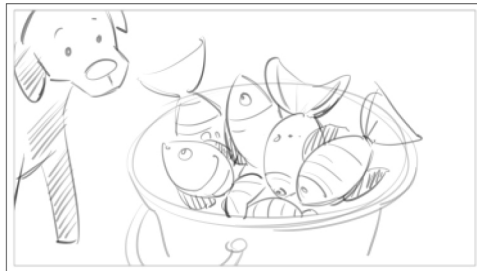
Scene	Duration	Panel	Duration
25	01:00	1	01:00



Scene	Duration	Panel	Duration
26	01:00	1	01:00



Scene	Duration	Panel	Duration
27	01:00	1	01:00



Scene	Duration	Panel	Duration
28	01:00	1	01:00



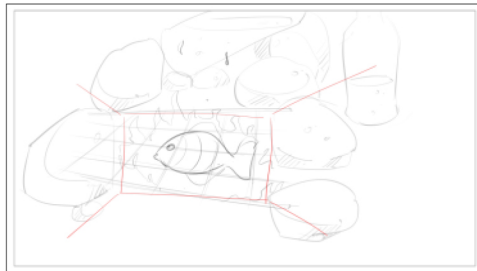
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29	01:00	1	01:00



Scene	Duration	Panel	Duration
30	01:00	1	01:00



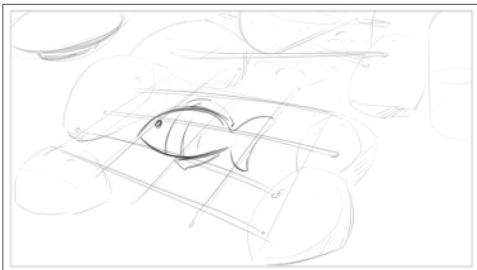
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31	01:00	1	01:00



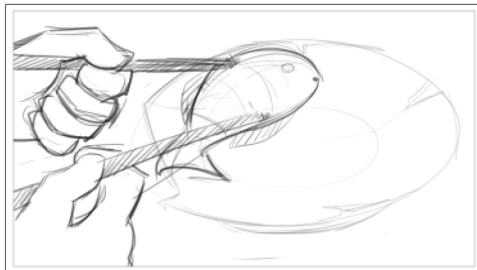
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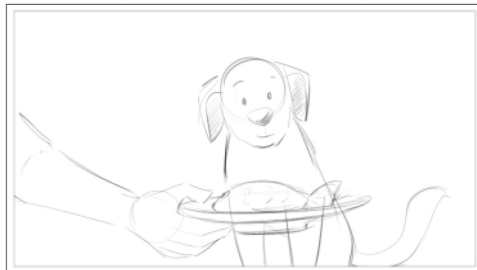
Scene	Duration	Panel	Duration
33	01:00	1	01:00



Scene	Duration	Panel	Duration
34	01:00	1	01:00



Scene	Duration	Panel	Duration
35	01:00	1	01:00



Scene	Duration	Panel	Duration
36	01:00	1	01:00



Scene	Duration	Panel	Duration
37	01:00	1	01:00



Scene	Duration	Panel	Duration
38	01:00	1	01:00



Scene	Duration	Panel	Duration
39	01:00	1	01:00



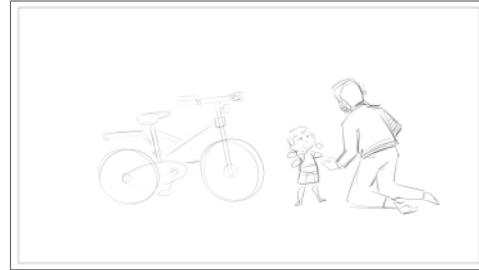
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40	01:00	1	01:00



Scene	Duration	Panel	Duration
41	01:00	1	01:00



Scene	Duration	Panel	Duration
42	01:00	1	01:00



Scene	Duration	Panel	Duration
43	01:00	1	01:00



Scene	Duration	Panel	Duration
44	01:00	1	01:00



Scene	Duration	Panel	Duration
45	01:00	1	01:00



Scene	Duration	Panel	Duration
46	01:00	1	01:00



Scene	Duration	Panel	Duration
47	01:00	1	01:00



Scene	Duration	Panel	Duration
48	01:00	1	01:00



Scene	Duration	Panel	Duration
49	01:00	1	01:00



Scene	Duration	Panel	Duration
50	01:00	1	01:00



Scene	Duration	Panel	Duration
51	01:00	1	01:00



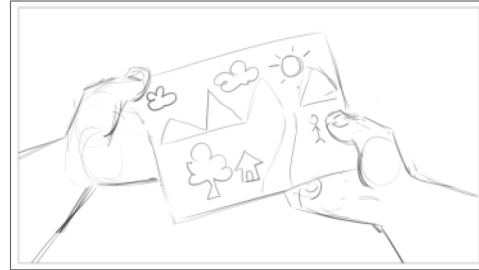
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Scene	Duration	Panel	Duration
53	01:00	1	01:00



Scene	Duration	Panel	Duration
54	01:00	1	01:00



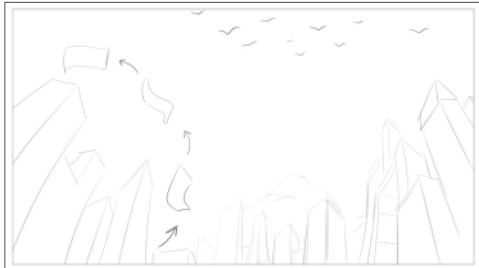
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Scene	Duration	Panel	Duration
56	01:00	1	01:00



Scene	Duration	Panel	Duration
57	01:00	1	01:00



Scene	Duration	Panel	Duration
58	01:00	1	01:00



Scene	Duration	Panel	Duration
59	01:00	1	01:00



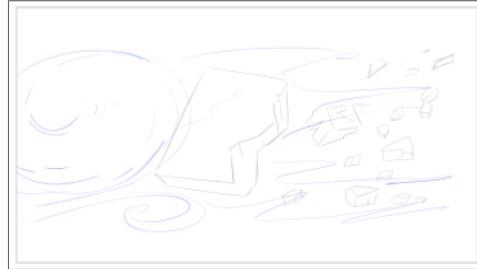
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60	01:00	1	01:00



Scene	Duration	Panel	Duration
61	01:00	1	01:00



Scene	Duration	Panel	Duration
62	01:00	1	01:00



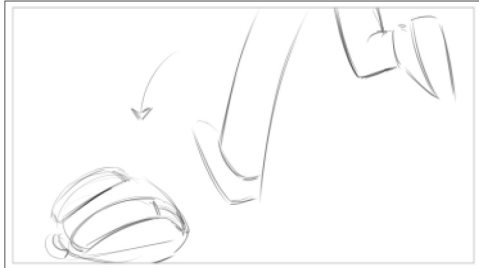
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63	01:00	1	01:00



Scene	Duration	Panel	Duration
64	01:00	1	01:00



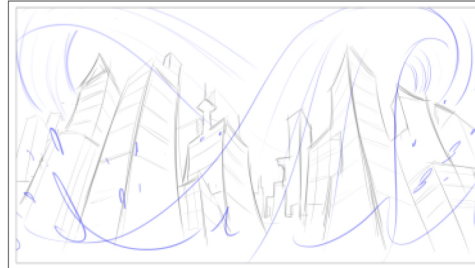
Scene	Duration	Panel	Duration
65	01:00	1	01:00



Scene	Duration	Panel	Duration
66	01:00	1	01:00



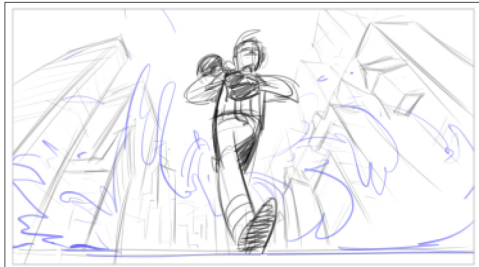
Scene	Duration	Panel	Duration
67	01:00	1	01:00



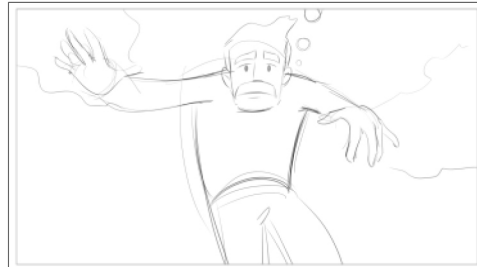
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69	01:00	1	01:00



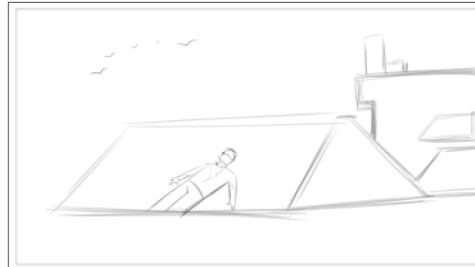
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70	01:00	1	01:00



Scene	Duration	Panel	Duration
68	01:00	1	01:00



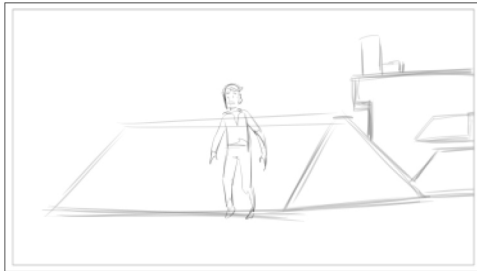
Scene	Duration	Panel	Duration
71	01:00	1	01:00



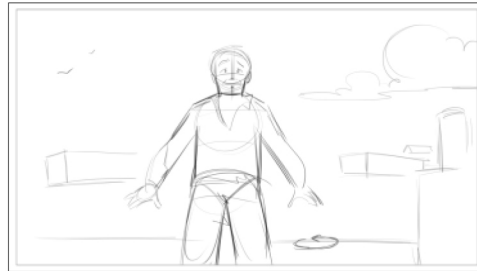
Scene	Duration	Panel	Duration
72	01:00	1	01:00



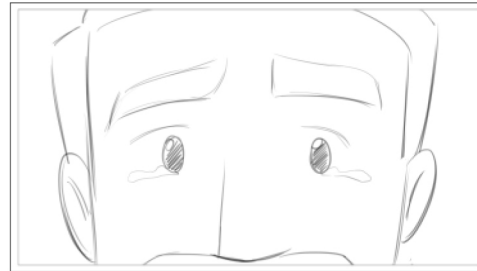
Scene	Duration	Panel	Duration
73	01:00	1	01:00



Scene	Duration	Panel	Duration
74	01:00	1	01:00



Scene	Duration	Panel	Duration
75	01:00	1	01:00



Scene	Duration	Panel	Duration
76	01:00	1	01:00



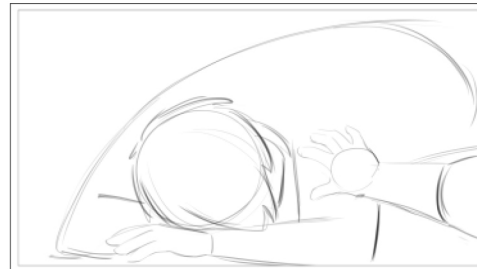
Scene	Duration	Panel	Duration
77	01:00	1	01:00



Scene	Duration	Panel	Duration
78	01:00	1	01:00



Scene	Duration	Panel	Duration
79	01:00	1	01:00



Scene	Duration	Panel	Duration
80	01:00	1	01:00



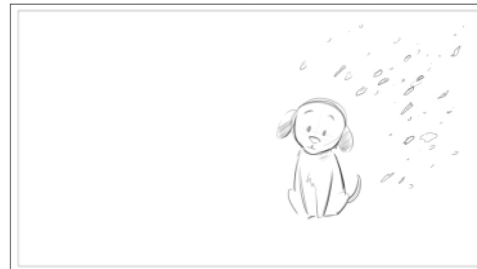
Scene	Duration	Panel	Duration
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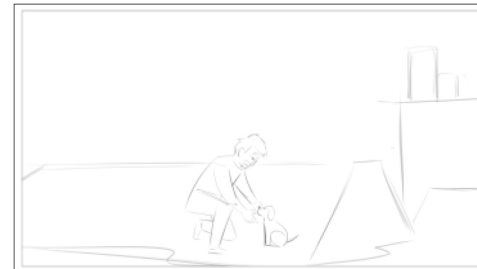
Scene	Duration	Panel	Duration
82	01:00	1	01:00



Scene	Duration	Panel	Duration
83	01:00	1	01:00



Scene	Duration	Panel	Duration
84	01:00	1	01:00



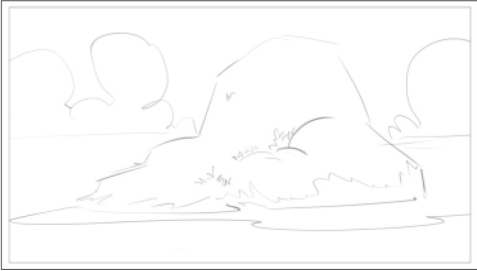
Scene	Duration	Panel	Duration
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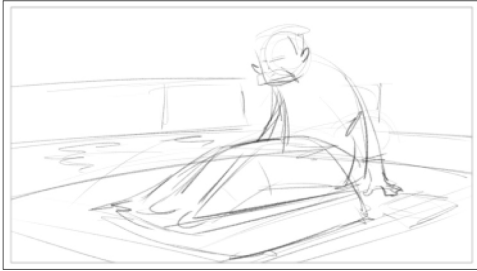
Scene	Duration	Panel	Duration
86	01:00	1	01:00



Scene	Duration	Panel	Duration
87	01:00	1	01:00



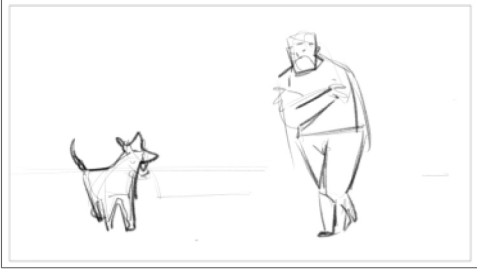
Scene	Duration	Panel	Duration
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Scene	Duration	Panel	Duration
89	01:00	1	01:00



Scene	Duration	Panel	Duration
90	01:00	1	01:00



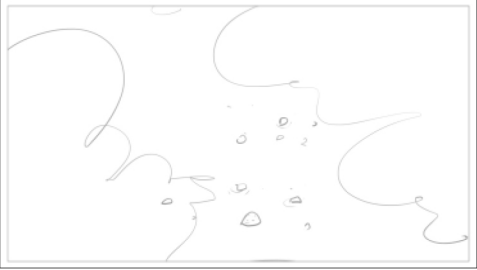
Scene	Duration	Panel	Duration
91	01:00	1	01:00



Scene	Duration	Panel	Duration
92	01:00	1	01:00



Scene	Duration	Panel	Duration
93	01:00	1	01:00

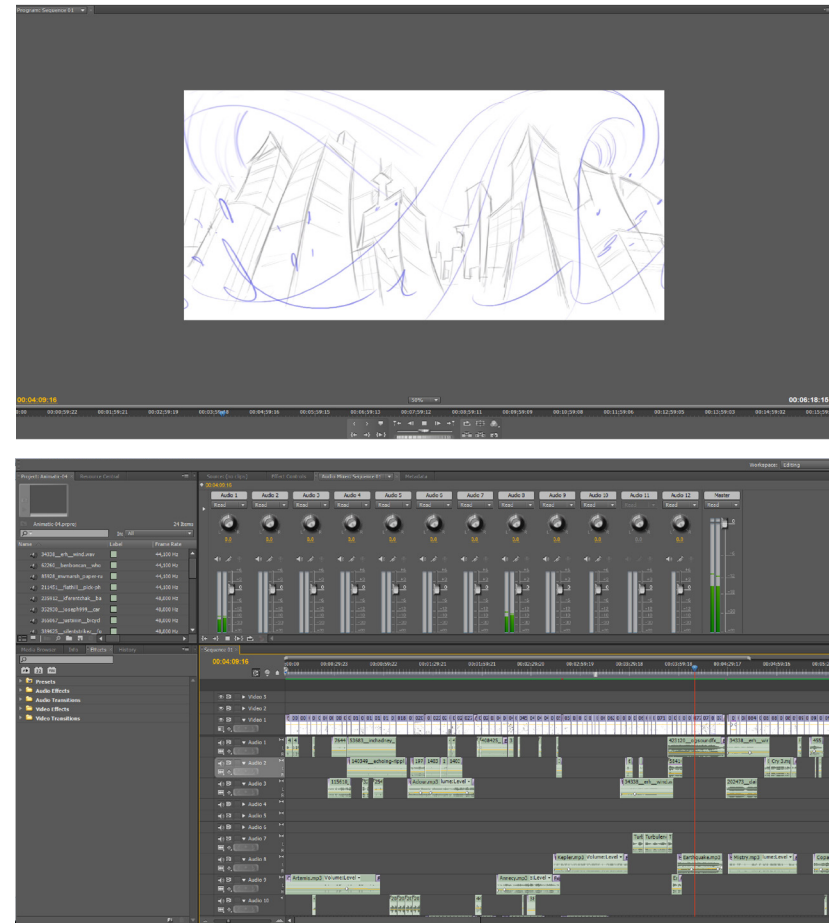


Scene	Duration	Panel	Duration
94	01:00	1	01:00



Sound Design

Sound is the most crucial part of the animation. The action or any act in the film gives a huge impact only with the help of music. Most of the shots which cant connect with the audience can be made more impactable with the sound. It connects people with the story to a great extent. Even a small bit of sounds can also play a significant role in the film. Every shot has some music which shows emotions feelings of the character and sometimes even keeping the movie silent may add extra drama to the film. They are two types of sounds like, for example, Background music and leading voice. Matching these two tones is a huge task and its very important to balance it. The sound design also clears the time duration of the film in the initial stage; the essential thing while animating characters is to listen to the music, which helps the animator to make the character act accordingly. Sound has the ability for action and acting, which makes things easier.



Animatic Development

After final storyboarding, I started with Animatic putting all the panels on to the timeline and adding a few frames to understand the flow of the story in motion. An animatic is a very core process, where I can see the entire film with the time duration and actions of the characters, not only that but even making backgrounds are essential in this stage to understand the compositions. I can put these things together and also composing the style in the right way, if I have made any mistake in my storyboarding, this stage will help me to clear those doubts, and make the story flow without any interruptions.

Observation

After working on the first draft of the animatic, I realised the following drawbacks in the film.

- The shot compositions and camera angles are not represented in the right way.
- There were few unnecessary shots in the story, which makes the film longer, so I have deleted the entire sequence while keeping in mind the idea of what I want to convey.
- I have made four versions of animatics and taken advice from the professors and many of my friends during the process.

Worksheets

Planning is very crucial to me; without it, I feel difficult to handle the things. Making a short film is very difficult for me as I have never done it before. I have no idea of making a proper plan which works out for my film, but still, I have made a rough plan. Creating or coming up with a proper story was very difficult for me, which has taken a lot of time beyond the time limit of my production plan. I was so disappointed that I couldn't go with the plan because it's challenging for me to complete the film. So, immediately after the rough confirmation of the story, I started with the pre-production and completed it way before the deadline of my initial plan. While in the Animation process I had to face many difficulties to get the right output which I needed, I had no much idea about the time taken for the animation for each shot, though I was ahead with the plan with the small shots, but it became more delay with complicated shots, which took more time to finish it. So, I made some more plans based on the time taken for animation. Thus, having a rough idea may understand how fast I need to move on to complete my film.

Project - 3

PROJECT TITLE		Snow ball - A step to live			SCHOOL NAME		IDC School of Design		
GENERALIST		Eshwar Kumar G B			UNIVERSITY		IIT - Bombay		

Animation Process

For the final animation, I decided to work digitally on softwares like TV Paint. I used various types of animation technique like pose to pose or straight ahead based on which makes my work easier. Learning the software was also is a huge task for me in the limited time. I am thrilled to work on this software, which made my work very more comfortable and even gave me a feeling that I am animating on papers. Making out the right keys was very challenging for me and also adjusting the correct timing of animation was another challenge. Maintaining the right volume of the character was also a huge task. Since there is a limited time to complete the film, I decided to get the fluid animation only through the primary keys and few breakdowns. Though I was willing to finish with the low-quality animation yet, I was trying to get the right motion. The technique of animation which i learnt, I wanted to use them to correct mistakes which I could notice, which made me more delay with the initial plan.



Animation work flow					
Shot No.	Title	R Animation	Clean Up	Color	BG
1	Dog waking him up				
2	Old man turning and wakes up				
3	Dog with bucket				
4	Old man smiling and gets up				
5	Walks towards the door with Dog				
6	Long shot of Hill				
7	Old man looking down with Dog				
8	Old mans Face				
9	Boat on water				
10	Old man and Dog getting down				
10a	Old man comes near water				
11	Old Man taking water looking at his reflection				
12	Takes water in his hands				
13	Puts the boat				
14	Gets on to the Boat				
15	Paddle pushing the water				
16	Plan shot of Reveling drown buildings				
17	Anal shot of drown place				
18	Under water of drowned buildings				
19	Stoping the Boat				
20	Putts the rope in the water				
21	Fishes comes near the hook				
22	Old man pulls the fish				
23	Puts the fish in the bucket				
24	Bucket gets full with fishs				

Learning and experience

First and foremost, I would like to thank all my professor's for allowing us to make two films. I always had a fear thinking of how to create a proper film, nor I got a chance to do it in the past. I made many plans to go on, but my project got flop during animation because I couldn't get the right quality what I needed. Therefore, I was struggling for the proper motion, which as taken most of my time. But I am happy that I could get something which made me feel satisfied with my work and I enjoy making a film. Although, I learnt the entire process of animation film making and make more good films in future.

The entire process of making a film involves contentious day to day work involving in the project, increasing the skills of art and maintaining the time, overcoming problems and hoping for the final product to be the best. I judge my work every day and asking my friends for their suggestions, which made my work more comfortable and more straightforward and also made me notice my own mistakes, which I haven't seen while doing it. There are many problems arisen during the work which enabled me to solve it in different ways.

When I look back to my journey of film making, I realised the fact of having enough patients and need a lot of confidence in whatever I am doing, which will help me to move forward.

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