

A clay animation scene showing an elderly couple from behind, looking out a window. The woman on the left wears a white turban, a yellow top, and a red and white patterned sari. The man on the right wears a white turban, a blue knitted vest over a plaid shirt, and dark trousers, leaning on a wooden cane. The window looks out onto a blurred green landscape.

# गाजर का हलवा

Gaajar ka halwa


A short clay animation Film  
By: Swati Agarwal  
Guide : Prof. Sumant Rao

M.Des Animation  
IDC, IIT Bombay

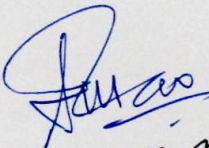
# Approval Sheet

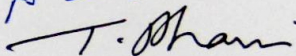
---

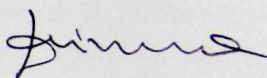
This Animation Project titled- 'Gajar ka Halwa' is approved in partial fulfilment of the Masters in Design in Animation & Film Design.

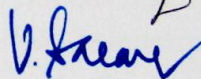
Signature: 

Date: 14/06/12

Guide: 

Internal Examiner: 

External Examiner:  (DHIMANT VYAS)

Chairman: 

Place : IIT Bombay

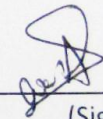
INDIAN INSTITUTE OF TECHNOLOGY BOMBAY '2012

# Declaration

---

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified

any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.



(Signature)

Swati Agarwal

(Name of the student)

10G3405

(Roll No.)

Date: 6/06/12

3

# Acknowledgement

---

I would like to sincerely thank my project guide Prof. Sumant Rao for his guidance and support. I am grateful for getting the opportunity to work with the medium of clay which has always fascinated me, and thus getting a chance to learn various other technical skills.

My sincere thanks to Prof. Phani Tetali, Prof.Nina Sabnani, Prof Shilpa Ranade, Prof. C.P Narayan and Prof. Sudesh Balan for their valuable suggestions and encouragement.

I am thankful to Mr. Samarth P Wankhede and Mr. Rudrapal Niranjana who provided me assistance during the project and helped a lot in making the set.

I would also like to thank all my classmates and specially my friends Hemali Vadalia, Girija Likhite, Ayesha Sayyed, Akshata Prabhu, Charu, Sudeep, Regan Raj and Ashutosh Parashar for helping me out at various stages.

Special acknowledgement to IDC Product Photo Studio, Sound studio, Wood lab and Plastic lab, they have been very valuable resources to the project.

Last but not the least would like to thank my mother and God who have always given me the strength and courage to keep going.

# Content

---

• Introduction.....	1	Set Design .....	43
• Abstract .....	2	Props .....	46
• Study and Inspirations.....	3	Hall Room	
• Research .....	6	Bedroom	
• Pre-Production		Kitchen	
Story concepts.....	12	Lighting.....	60
Final Story.....	15	• Production	
Character Explorations.....	17	Animation.....	62
Final Character .....	19	Expressions and lip sync.....	63
Gestures and Expressions .....	20	Camera and Capturing.....	68
Storyboard .....	21	Lenses.....	69
Medium Exploration .....	31	• Post- Production	
Animatics.....	34	Sound and Music .....	70
Character development .....	35	Effects, Editing and Compositing.....	71
Final Character .....	42	• Learning and Conclusion .....	74

# Introduction

---

The film is about the day to day fights between the couple when they spend years together. A grandfather who wants to grab the gajar ka halwa which the grandmother is cooking for her grand daughter. She doesn't allow him to have the halwa due to various health problems he is having.

Thus, the movie is about the various attempts of the grandfather to get that halwa from the grandmother.

# Abstract

---

My film is about the day to day meaningless squabbles shared between the old couples. The love, well it does exist but in an amusing way. The priorities might change over the time the couples have spent together, however they adore their imperfectness of life.

A sweet glimpse of my movie would share the silly and humorous moments the grandma and grandpa have seen together.

# Study and Inspirations

---

## Oru Cheru Punchiri, by M.T. Vasudevan Nair

A beautiful Malayalam movie which talks about the celebration of life at old age. Couple decides not to surrender to the threats of their children coated in love. Not to sell their ancestors property in village – move to city and settle with them. It's full of little fights, possessiveness and jealousies.

What I liked about the film was its simplicity and the natural atmosphere which made the communication between the performers and the audience stronger.



## Up, by Pixar

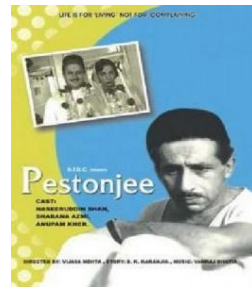
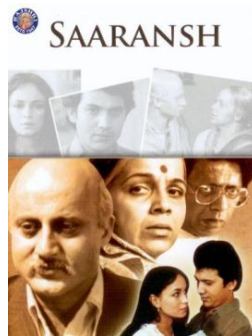
The romance the protagonist had with his wife. Both funny and tender – conveying that our connection with others is what makes our life meaningful. The film helped me a lot not only in terms of storytelling but also understanding the character development, studying gestures and expressions.





# Study and Inspirations

---



## Saaransh, by Mahesh Bhatt (1984)

How the old couple fight with the grief of their son's death, win and find a new motive to their life. A story of despair, search, purpose and above all hope. It had a beautiful message hidden that its we who have control over our lives and not let the life take control over us.

## Pestonjee, by Vijaya Mehta (1988)

Two close friends - attempt to do everything together-wish to marry the same day as well. Unfortunately, both go to see the same young lady, one ends up getting married. What I like about the movie was the emotions – conveyed through facial body expressions of Naseeruddin shah rather than dialogues. It talked about the inherent human weakness of complaining about or comparing lives rather trying to enjoy what we have.

## When Harry met Sally (1989)

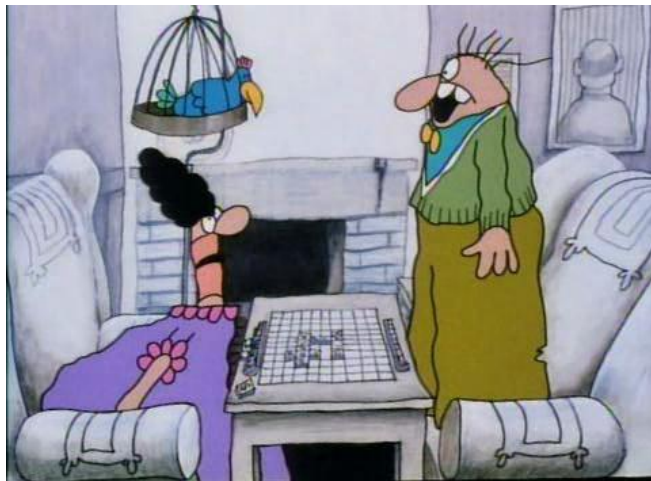
The movie had these short stories of elderly couples telling stories about their relationships. Several interesting stories were told throughout the movie.

# Study and Inspirations

---

## The Big Snit, by National Film Board of Canada

The poignant and hilarious animated film perfectly captures the intersection of a domestic quarrel and a global nuclear war. Two people so deeply involved in their shared world that they fail to recognize the one outside, where a major war is going on. The interesting little conversation between the two made it more interesting.



## Mary and Max, by Adam Elliot

In this relation there is a poetic quality to the narration and dialogue. This movie also helped me in my character and set designing. I like the characters here as they were simple and complicated at the same time. Their lives, emotions, psyches, routines, physical states, are presented as an open book.



# Research

---



## OLD PEOPLE

I had spent lot of time with my grandparents. Their day to day activities, their way of talking, behavior, conversation with each other always used to catch my attention.

Old age was a wide topic and I was trying to narrow it down. For that I had a talk with few of my friends who have lived for a long time with their grandparents, listing down their emotional and fun filled experiences with them.

Initially my plan was to make a sensitive film dealing with the issue of generation gap so to study the subject deeply I watched few old age home documentaries and also visited 2 old age homes.

I always had a wish of visiting old age homes and the project gave me an opportunity. I really wasn't sure of what to speak with them at first. I couldn't acquire much information during my first visit as I went there without any proper planning, so did some more background study and went again.

# Research

---

## Conversation with a granny



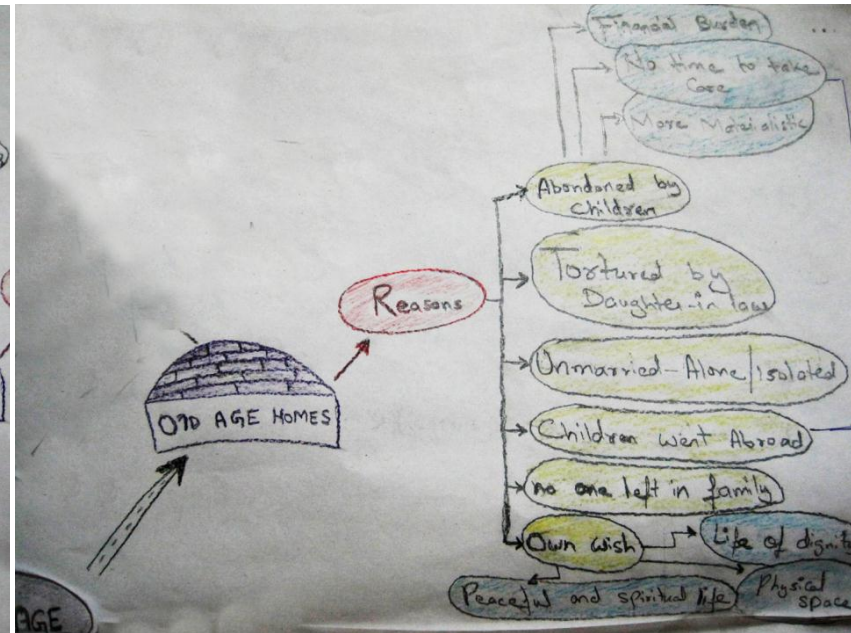
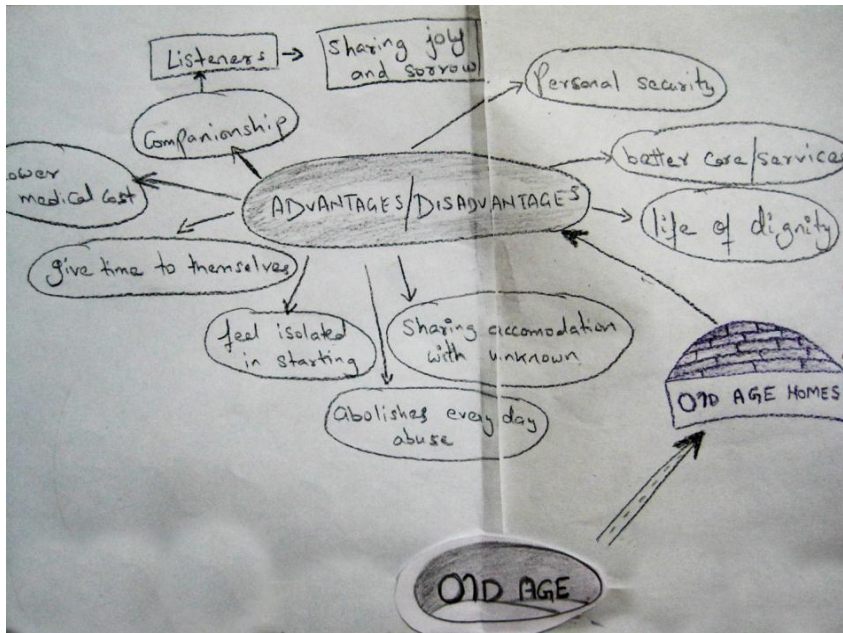
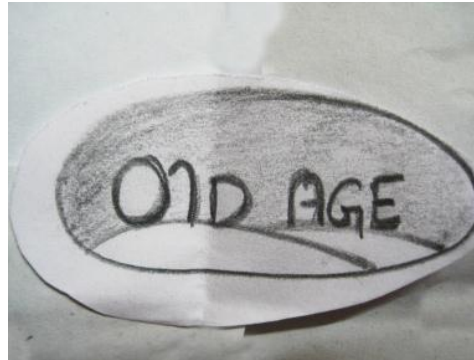
The old age home was called 'Justice H.K Chenani'. There I had a conversation with a 75 year old woman. Lines and wrinkles on her face say it all. She was sitting all alone in the corner of a small silent room. Her eyes cry of pain, sometimes lost in the emptiness - emptiness of hearts of her own children. She was being tortured by her own daughter- in law. She got hurt in leg so came to the old age home on doctor's advice as the daughter -in law use to ask her to do the household work. She lost her husband 20 years back and only had the support of her son. Her condition cannot be described in words. She didn't have any financial support also.

She was alive with just a single hope of coming back to their homes. A sense of helpless despair, visions of solitude and neglect has covered her mind.

I had such interaction with not only her but few other old people also living there and asked them various questions, on the basis of which prepared a mind map which initially included the reasons of old people going to the old age homes and the advantages and disadvantages of that.

# Research

## Mind Map



# Research

---

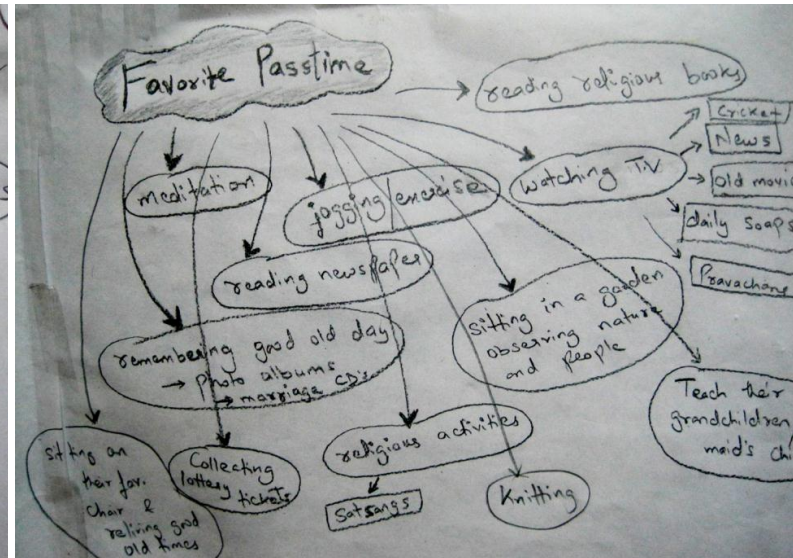
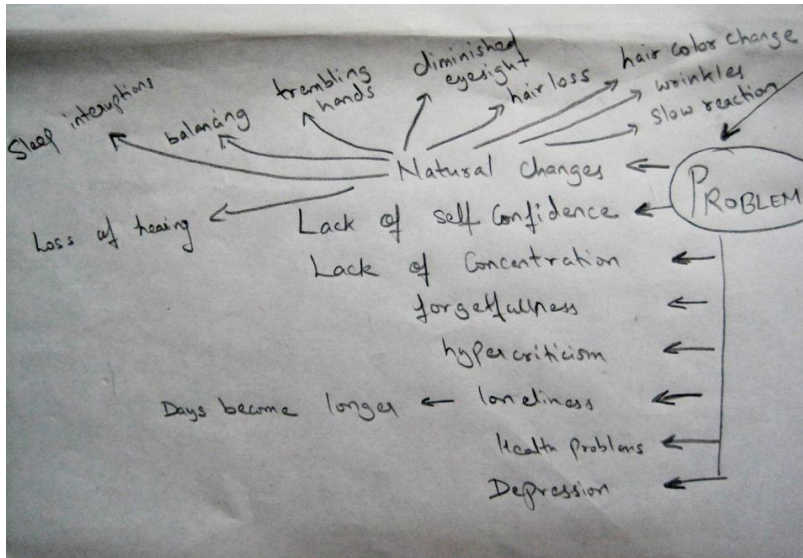


I also had conversation with various grandparents around me which helped me knowing them better. Their daily routine, likes and dislikes, relationship with each other and with their children. Things to which they are most attached to. Their feelings about old age. The problems they face at this age. Their past memories. Their favorite pass time etc.

Although as I myself had spend a lot of time with my grandparents, I had an idea of all this.

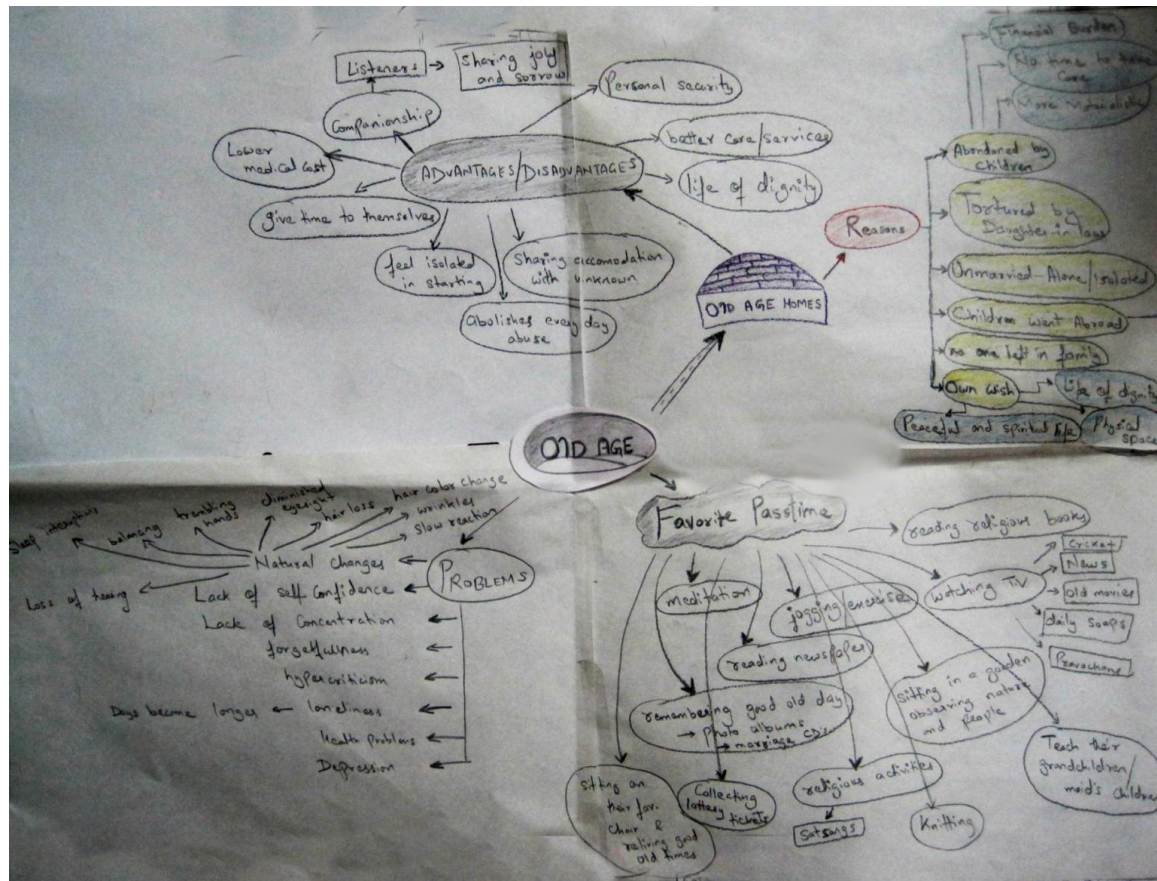
# Research

The mind map was expanded based on the above research.



# Research

Thus created a final **mind map** which further helped me a lot in building up the story.





# Pre- Production- Story Concepts

---

Based on all the research and study, I came up with various concepts dealing with the various areas of old age.

**CONCEPT 1:** An old couple sit together and share their sweet and silly moments of old age by looking at their photo album.

**CONCEPT 2:** Old man had a feeling of complete alienation when his own son starts neglecting him. Slowly the world near him seems to be changing. He finds his own son transforming into a robot. Finding his own home to be suffocating he moves out. He sits on a bench – birds near him fly away. He sits under a tree – green leaves turn brown and fall. Goes for fishing – fishes change their route. Finally reaches a place where he finds peace, happiness then realizes that place was heaven.

**CONCEPT 3:** A little girl who comes to their grandparents home to spend her vacations with them.

**CONCEPT 4:** An old woman - living in an old age home suddenly gets a phone call from his son - she has become the grandmother and thus asks her to come back and live with them, but what he just want is someone who can take care of his son while they are out for work.

After having a discussion with my guide, I developed the third concept and built a story.

### Story 1:

A retired civil engineer Mr. Odu in his mid seventies and his wife in her mid sixties are continuing their life on love hate relationship. Unfortunately, both have almost lost their sense of hearing though it has not become as a hurdle in their day to day battle.

Usually at this age, the mornings begin with revitalizing walks, sipping the fresh morning tea and newspaper reading. However their morning secretly starts with a game. Yes, a video game. The one who loses prepares the morning tea.

One morning as they were busy playing a video game. The door bell rang. Their deafness kept them unconcerned and involvement going. The door bell kept ringing. Sara was tired of pressing the bell. She finally gave up and saw the house window wide open, like always. Sara, a 12 year old, Mr. and Mrs. Odu's only granddaughter now stood in front of them angry. She was here to spend her vacations. Distracted, they slowly turned towards her. Rubbing their glasses they instantly got out of the sofa, filled with joy, they hugged their little Sara leaving her breathless.

Baba Ramdev' took over the evening TV program. Grandfather softer face of hers. She could see the love and concern in her grandmother's eyes. Granny carefully, puts a hot

would be so engrossed that he would try to copy the asanas the Baba would perform. The grandfather tried and tried and was now in a very complicated position of yoga asana. Just then the grandmother entered and flipped the channel. Soap Opera! Granny's favorite drew her to the sofa, where she sat completely engrossed in it. Poor Grandfather, he was still stuck in that awkward position. How ignorant! He starts shouting. Soon enough he gets even more irritated when he finds her dozing off within a minute of changing the channel and snoring off to glory.

Sara bounces back in the room changing the channel to one of her favorites. The loud sound startles the grandmother waking her up. Granny gives a discouraging looks to Sara, scared, immediately bounces off leaving the granny yet again, dozing. The next day, grandmother cooks 'gaajar ka halwa', everyone's favorite. The aroma draws grandfather closer to the kitchen making him excited. He was so thrilled that he might too get some offers to help her. However, ends up breaking one of her oldest and dearest vessel. Angry, Grandmother shouts and refuses to serve the halwa to him. Yet again, poor grandfather walks out sadly with drooping shoulders. Sara sitting in the dining room watches them silently.

At night, the grandfather tip-toes across the room to grab some halwa from the refrigerator, but gets caught. So he puts the plate back, picks up the water bottle and pretends as if he came to drink the water. Granny gives him an annoying look.

They go to the bed when suddenly the old man complains of a terrible stomach ache.

Grandmother, whom Sara finds to be very rude

put water bag on his tummy staying up all night long taking care of him.

In the morning, grandfather is pleasantly surprised to see her bringing back the bowlful of halwa. The doctor visits him soon enough reassuring them of a minor gastric ache. As soon as the doctor is away, grandmother snatches away the plate saying that too much sweet would spoil his few leftover teeth.

Annoyed grandfather confidently says that he has got more and then, both starts counting each other's teeth and fighting over who has got more. Sara draws a picture of their never ending love - battle in her drawing book.

# Pre- Production Final Story

---

This story got loads of good feedback. There wasn't anything specific in it dealing with old age or old people. Moreover the granddaughter doesn't hold any importance in the story. It was not linked properly. Later with the assistance of my guide I came with a new story.

The story starts with a beautiful morning, grandfather sitting on a bench in a small park near his home and birds chirping around him and eating grains. He cleans his glasses to see a pretty girl jogging nearby. Taking the support of his wooden stick, the grandfather stands. As he stands all the birds fly away. The grandfather moves towards his home.

He bends down with great difficulty to pick up the newspaper, turns the door knob and enters. As he enters, he smells a mesmerizing aroma. The aroma draws grandfather closer to the kitchen making him excited - "arre khushboo to bahut achi aa rahi hai" ("What a pleasant smell"). Grandmother in the kitchen is cooking gaajar ka halwa, was crushing the cardamom to be poured into the halwa. She replies- "tumhare liye nahi hai, tumhari pothi ke liye hai, kal aa rahi hai wo" ("It's not for you, its for your granddaughter who is coming tomorrow"). Grandfather lost into the aroma of the tasty

Grandfather opens his eyes and look towards her in

gaajar ka halwa paid no attention to what she said and was about to touch the halwa with his finger when granny hits on his hand with the spoon she had in her hand. granddaughter and son")

Grandfather goes into the drawing murmuring - "bahu, poti, beta..bahu , poti , beta..kuch dikhta hi nahi inke aage..mera to koi khyaal hi nahi" ("no one takes care of me, keep on worrying about your daughter in law).

Grandfather sits on the sofa, switches on the tv, starts watching cricket match but doesn't find it interesting so he again goes into the kitchen - "main tumhari madat karta hun, hum halwe me badaam daalenge" ( let me help you out, we'll add almonds into the sweet dish). Granny refuses to take any help. But he gets stubborn and while taking the almond box out, breaks a very precious old jar of granny by mistake, which goes parallel to the cricket commentary - "or ye gira pehla wicket". Granny shouts - "saara kaaam badha diya mera, jaake apna tv kyu nahi dekhte"(you have increased all my work, why don't you just go and watch tv).

Grandfather returns with a sad face., switches the channel and starts doing pranayam( yoga). The grandmother enters- "arre ,mera serial shuru ho gaya hoga, aaj to der ho gai"( my soap opera must have started, I got late today) and flipped the channel. Granny's favorite soap opera drew her to the sofa, where she sat completely engrossed in it.

amazement. Soon he gets happy when he finds her dozing off within a minute of changing the channel and snoring off to glory, another chance to get the halwa. He had moved just few steps when a voice stopped him- “kahan jaa rahe ho ?”(where are you going?). Frightened, the grandfather quickly sits on a chair lying nearby, holding a newspaper- “ ab main akhbaar bhi nahi padh sakta kya?”Granny passes a little smile.

The door bell rings, granny goes and opens the door, the vegetable seller puts down her vegetable basket - “ arre kamla, itni der kaise ho gayi aaj”( how did you get so late today) kamla replies- “ kya bataun maaji, mera marad kal fir se pee kar aya,fir uski roz ki wahi kit kit..upar se ghar ka raashan khatam ho gaya tha, to mene khana nahi banaya..fir kya tha..or bahana mil gaya usko ladne ka. There the grandfather giggles and moves towards the kitchen- “ inki to baatein chalti rahengi, tab tak mein thodi pet puja kar leta hun ”(they'll keep on talking, let me have some food till then).

He was about to put a spoonful of halwa into his mouth when the granny comes and stands on the door behind him. Again he had to face the failure. It was the night time, granny was in sound sleep but grandfather still had that image of gajar ka halwa kept in

the refrigerator. The sound snoring of the granny made him believe that she was sound asleep.

Grandfather wakes up silently and drops his spectacles, got afraid that granny would wake up but was happy when saw her earplugs kept on the table near her. He sneaks towards the kitchen, opens the refrigerator, picks up the halwa plate, was about to eat when suddenly light is switched on and he sees granny standing angrily on the door.

Next morning, grandfather was playing chess on his own, when the grandmother brings a bowl having little halwa in it - “ye lo , kha lo thoda sa” and passes a kind smile. Grandfather angrily refuses to have it. Granny –“Muh fula ke kyu baithe ho”.Granny lovingly keeps the bowl on the table and moves back into the kitchen.

As she goes back grandpa turns to see whether she was gone or not. He then picks up that bowl and then picks up another bowl which he had successfully stolen.

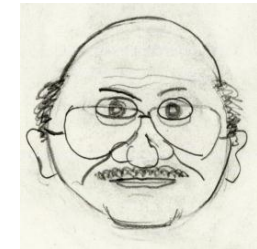
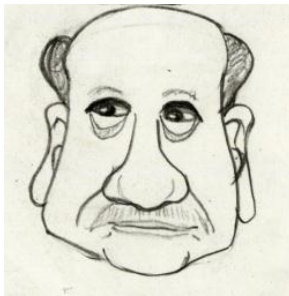
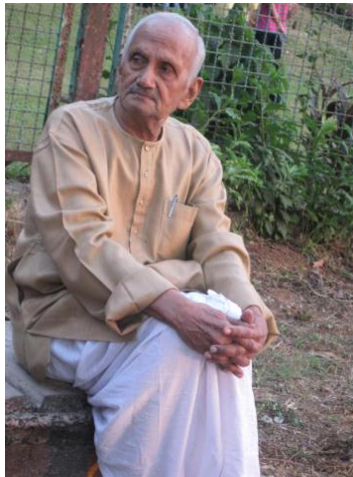
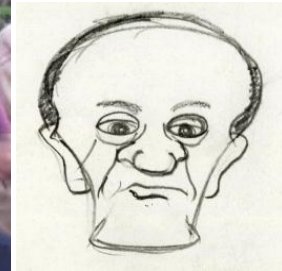
Thus successful in his attempt he chews the already kept halwa of his mouth (because of which his mouth was looking like a swollen mouth)and laughs out.

# Pre- Production-Character Exploration

---

## Initial Explorations

I did various explorations before coming to a final design of my characters. I used to go to the lake side in my campus with my sketchbook as many old people used to come there in the evening. I initially started with exploring just the faces.



# Pre- Production- Character Exploration

---



Did various other explorations with the character of the old man, out of which 1 became the final character which was further transformed. This main character is partially familiar to an old man I met on the lake side of my campus.

# Pre- Production- Final character

---

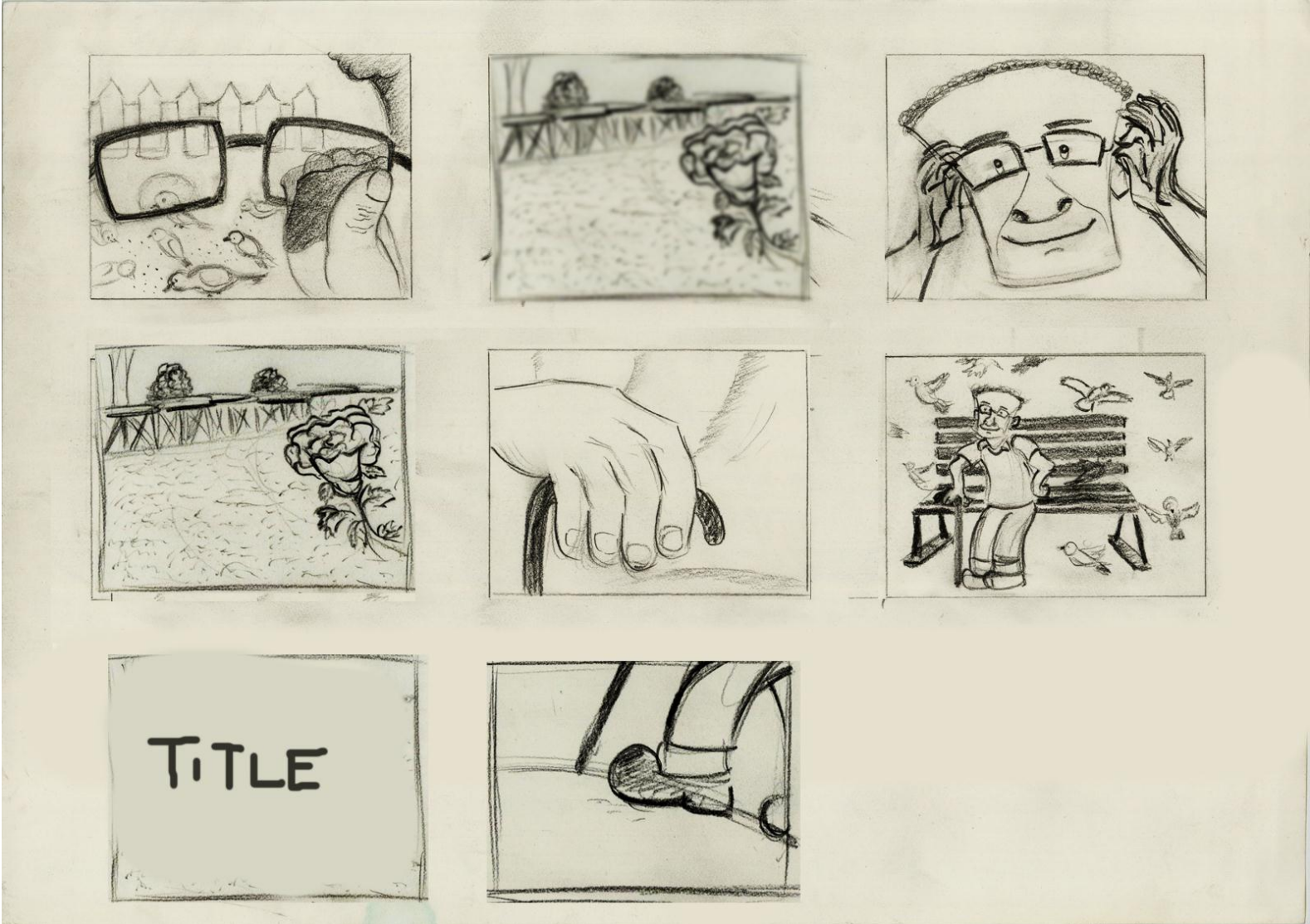


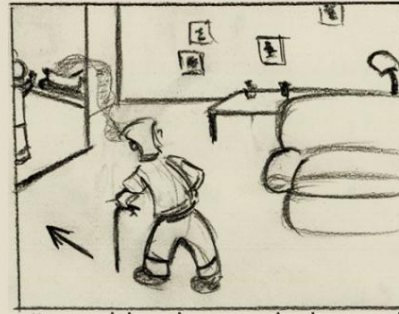
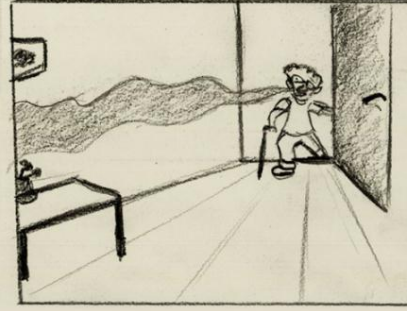
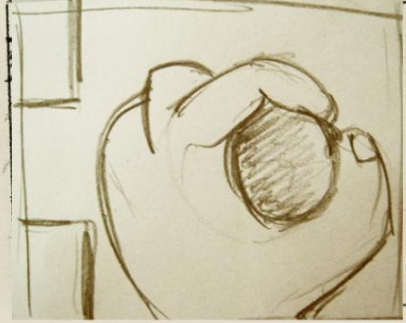


# Pre- Production- Gestures and expressions

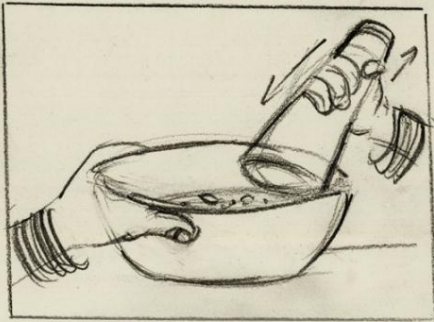


# Pre-Production- Storyboard

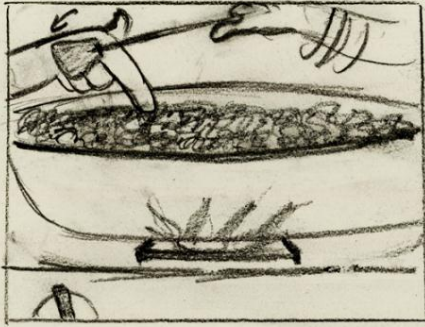




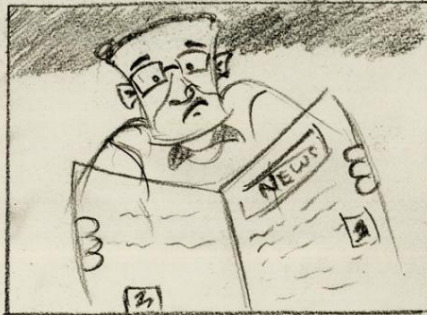
"arre khusboo to bahut achi  
aa rahi hai"



"kal tumhari pothi aa rahi hai,  
uske liye hai...tumhare liye nahi"



" hmmm "

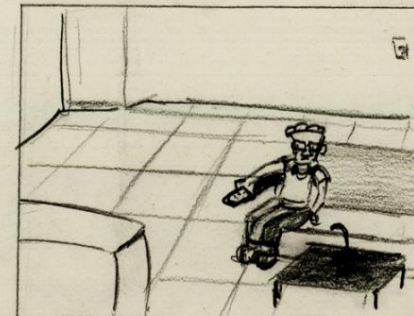


" halwa khana hai ?"

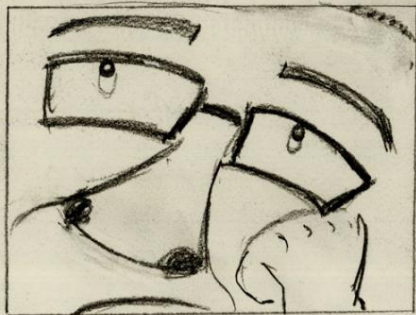




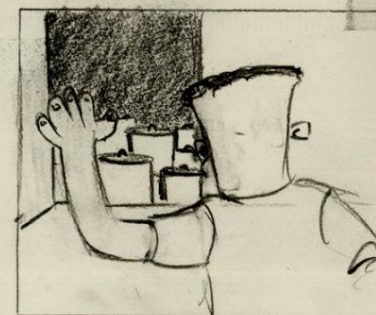
"ye lo"



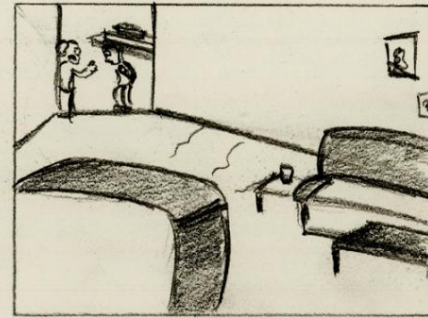
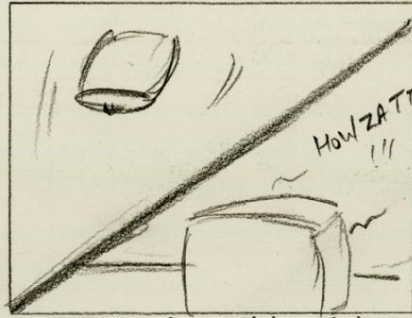
aur ye 1 behartareen  
coverdrive se ..shandaar chauka



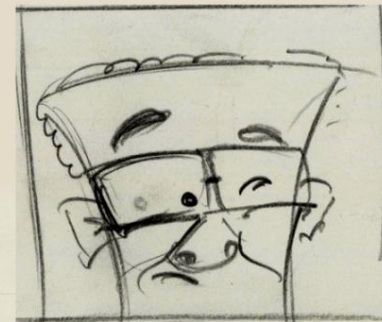
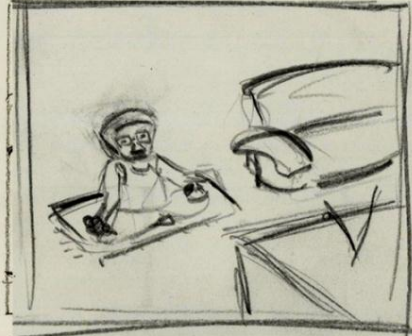
"me tumhari madat karta hun"

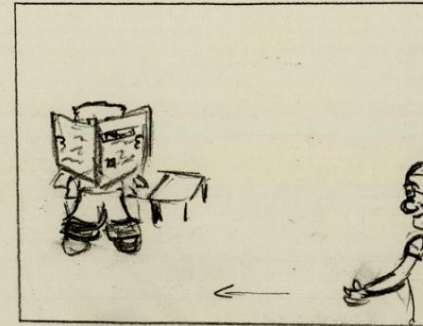


"hum halwe me badaam daalenge"

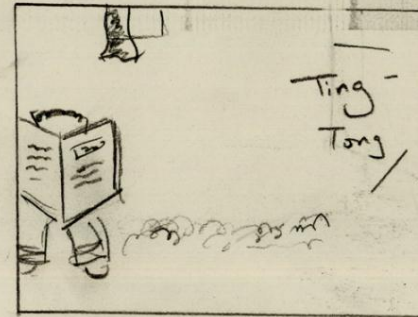
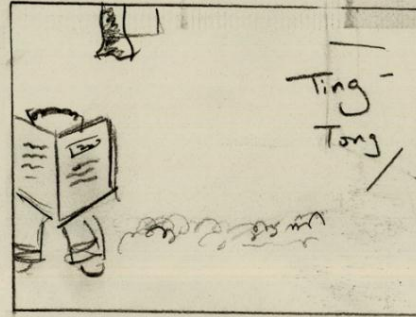


" aur ye gira pehla wicket "

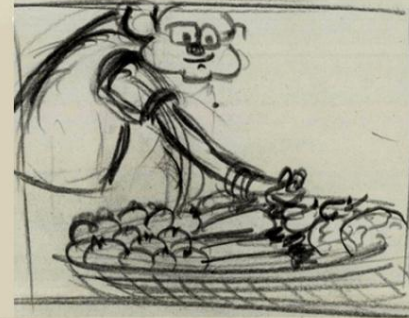
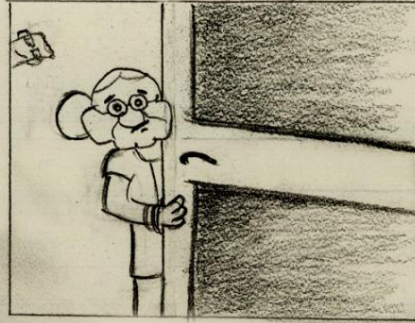
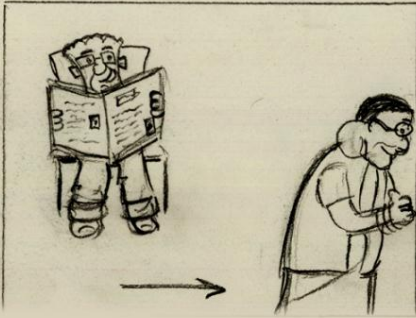




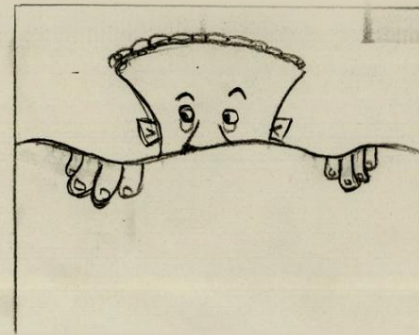
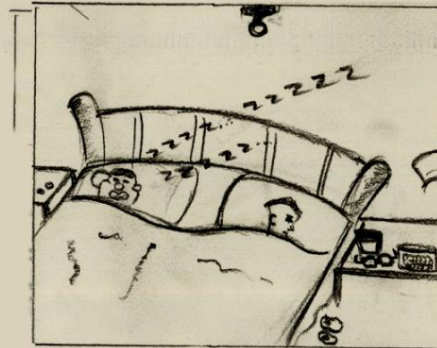
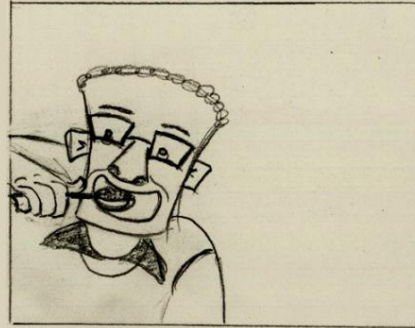
" ab me akhbaar bhi nahi padh sakta kya "



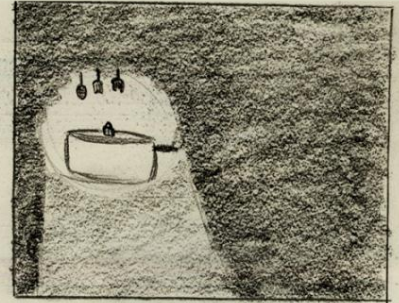
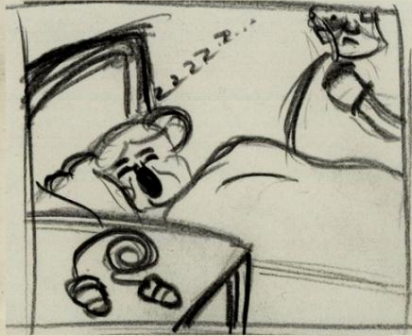
" arre dekhna darwaze par kaun hai "

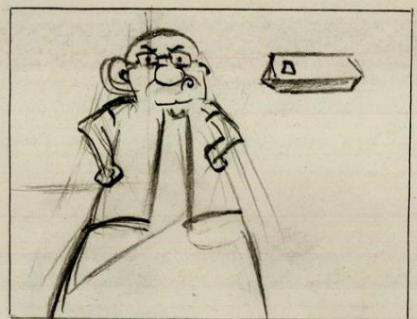
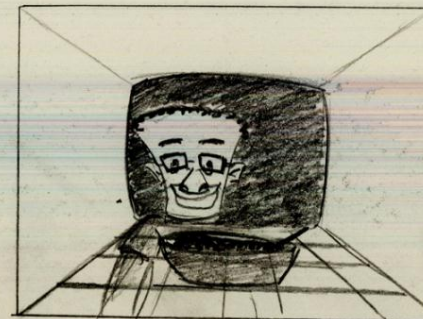
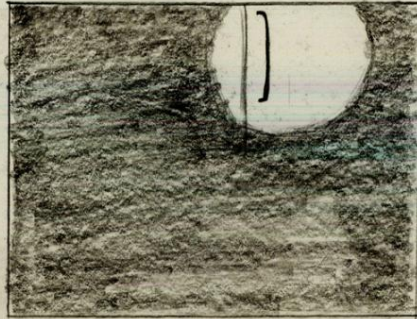
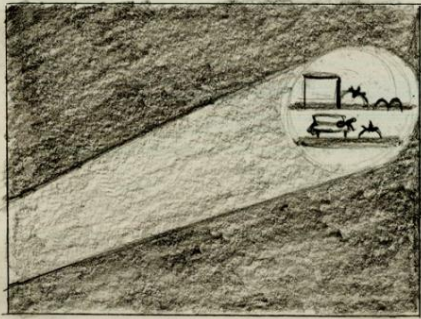


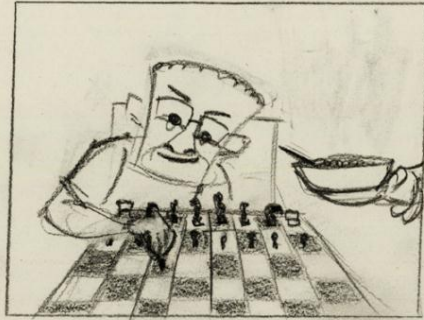
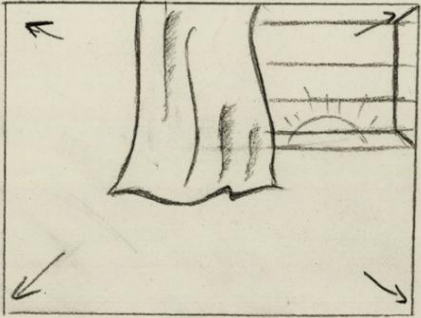
" hmmm, arre Kamla, aaj der kaise ho gai,  
chal .....or tera beta kaisa hai ab.... "



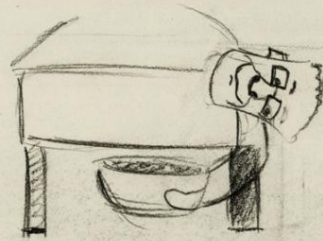
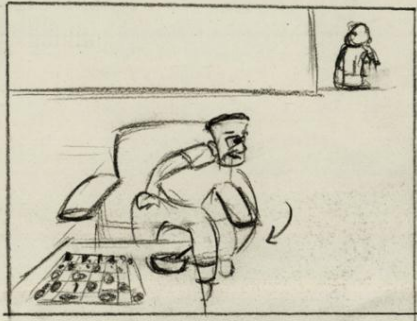








"ye lo.. thoda sa kha lo "



# Pre- Production- Medium Exploration

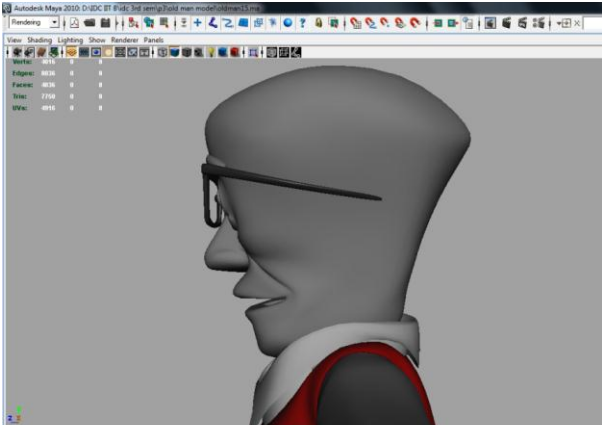
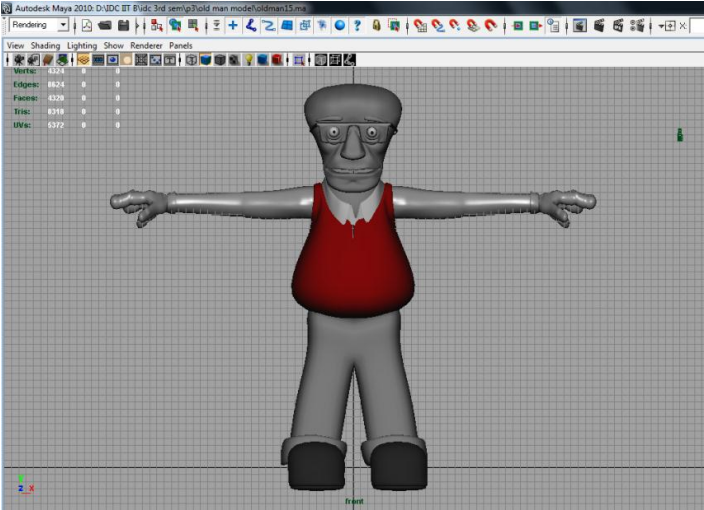
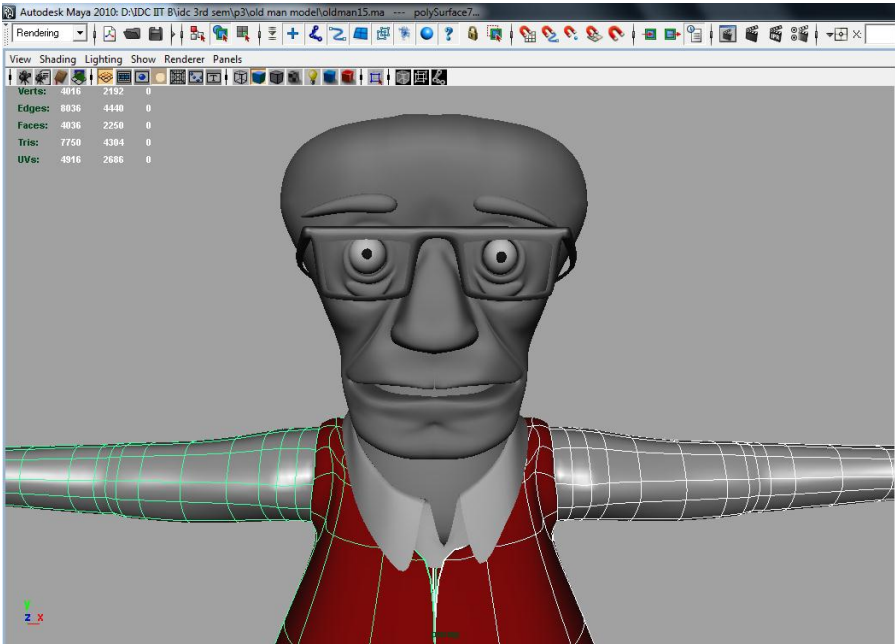
---

Initially I thought of working in clay for my p3 project then my guide asked me to explore the digital 3d medium - Maya, as I had already worked in maya during my graduation but the output wasn't that good.

I started exploring both the mediums. I used to work on the software during the day and play with clay during night. Both the mediums had their own advantages and disadvantages. But working on maya was taking a lot of time as I was no longer in touch with the software, thus was not enjoying the process, moreover the kind of feel I wanted to have for my movie was missing.

I was visualizing the movie in clay and wanted that human touch and feels to it. Thus finally I decided to go for claymation.

# Modelling in Autodesk Maya



# Experiments with clay

---

Tried making my characters with clay.



# Pre-Production- Animatics

---



Once the story board was prepared it was assembled together and played keeping in mind the time(how long the shot is going to be)so as to get a proper idea of how the film will look finally, also temporary sounds were added and voices were recorded for the same.

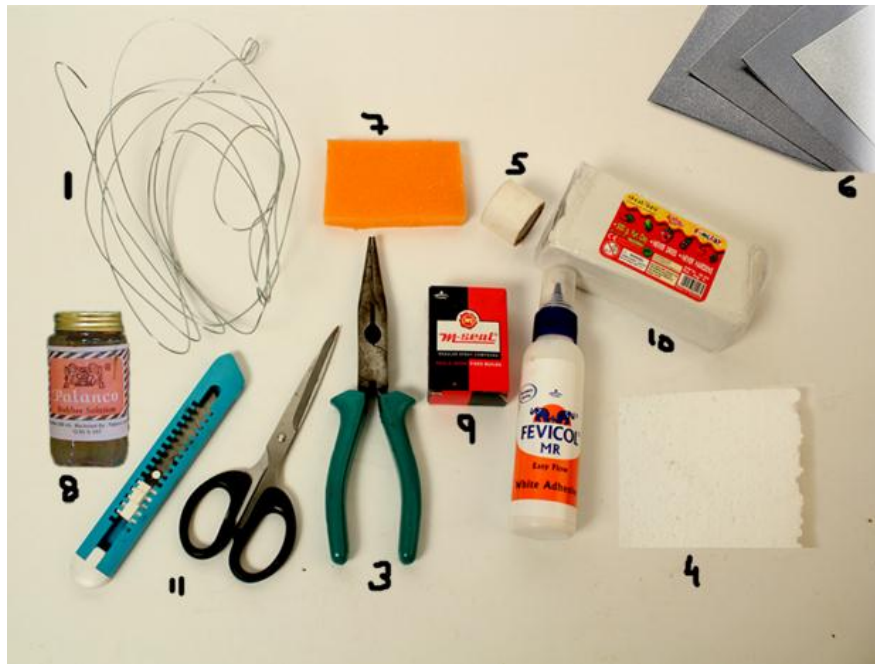
As I was not very comfortable with visualising good camera angles, my guide suggested me to make another story reel by making a rough set out of thermocol, making basic props(which further helped me in developin the set) and using mannequins as characters.

This helped me a lot in deciding the camera angles and gave me an idea of staging.



# Pre-Production- Character Development

---



## Materials used

1. Thick Aluminium wire - 6mm
2. Thin aluminium wire - 2mm (for fingers)
3. Set of pliers and wire cutter
4. High density thermocol
5. Paper tape or doctor's tape
6. Sand paper
7. Thin foam sheets (to give volume to the characters)
8. Palanco's rubber solution (to stick foam to the thermocol)
9. Hobby idea's white m-seal (to be applied on the areas of bones)
10. Clay (plasticine – funclay of 'creations' or 'Kores')
11. Cutter, scissors, fevicol

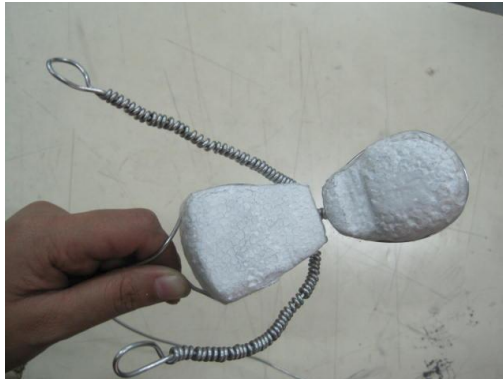




## Pre-Production: Character Development

---

Taking into consideration all the measurements and scales I made a 9 inches long character.



### Process - Armature

- Initially I started with drawing the characters in exact proportions on a paper.
- Then they were drawn on a high density thermocol and carved out.
- I applied fevicol on the pieces as it helps the clay to stay on the thermocol.
- A medical tape is wounded on the area where the wire has to be tied.
- I took the 6mm aluminium wire (around 4m long) and started making the skeleton.
- M-seal is applied to the areas of bones. Joints are left open. It takes around 30 min to dry.
- Once the m-seal dried, thin foam was used to wrap the body of the characters to give volume and give it a proper shape.
- 2mm aluminium wire was used for making fingers.
- Paper tape was applied on the fingers to create volume.

# Pre-Production: Character Development

---



# Pre-Production- Character Development

---



## Process – Clothing and accessories

- As my grandma and grandpa are middle class so the clothing had to be designed accordingly and also keeping in mind their general characteristics. So I made grandpa wore a simple check shirt, a cut sleeve sweater and pants whereas for granny a blouse was made and the saree made to worn around it.
- My mother knit the sweater and friends helped a lot in stitching the rest of the clothing.
- The clothes were stitched to the armature itself.



- Grandpa's spectacles were created using wire, then covered with paper tape and painted whereas only wire was used to make specs for the granny.

- Grandpaa shoes were made using m-seal.



- Walking stick was using a fruity plastic straw, wounded with paper tape and painted as the color was not sticking directly onto the straw.

- Grandma's bangles are made out of twisted metallic wire. Board pins were used for earrings and the necklace(mangalsutra) was made using the chain holder of a nailcutter.



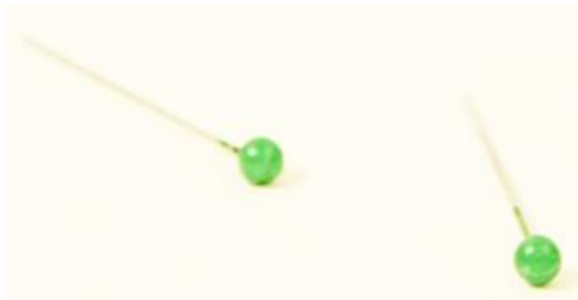
# Pre-Production- Character Development

---

## Process – face



- Skin color was made using different portions of brown, red, yellow and white plasticine.  
A very thin layer of clay was applied so as to keep the model light weight. I didn't pay special attention smoothing the clay out as I wanted the feel of that clay in my film.
- For the hair the same white color plasticine clay was used. Texture was given to dadaji's hair and a bun was made for dadi. Also a little black was mixed with white so as to get grey.
- Inspired from the Mary of "Mary and Max", I used a board pin which acted as a bead and used it for making the eyes of grandpa.
- Same I applied for the granny but due to her round big head that only black eye was not working so I put a white base of clay and then a bead over that.



# Pre-Production- Character Development

---

## Final Characters



# Pre-Production- Character Development

---



## Kamla

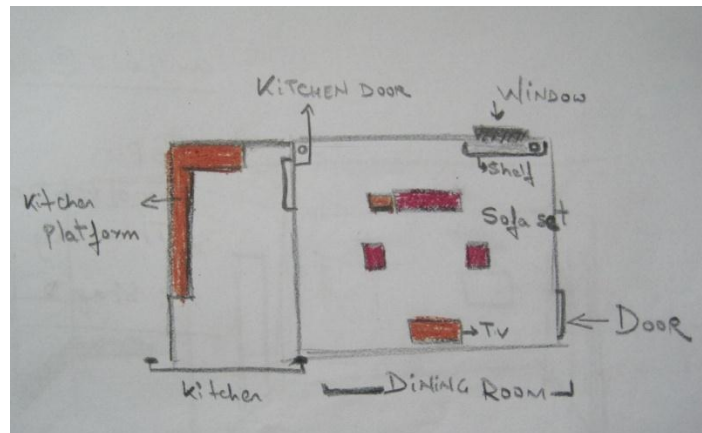
Another character called Kamla- the vegetable seller was there in my film, although I planned to show only her hands. So I made the hands with the same procedure and made her wear old metallic bangles.

The clay used for her skin had a little darker shade than the one used for grandpa and grandma as she has to go door to door in the sun in order to run her house.



## Pre-Production: Set Design

Going with the script, I was required to make a hall room, a kitchen and a bed room. I wanted the house to look old ratherSet designing was a completely new experience for me.



### Planning

A lot of pre planning has to be done before making a set. Keeping in mind the camera, making plenty of allowance for it to enter and also making space for me to animate.

I made hall room and an attached kitchen within a space of about 32" x 26".

A rough set was made before out of thermocol to get a proper idea of the scale, proportion, space and camera angles.

Walls were made using MDF sheets of medium density. MDF sheets don't bend easily and are good for interior use. A L- shape support was given to the walls.



# Pre-Production: Set Design

---



**Hall Room**



**Kitchen**

# Pre-Production: Set Design

---

## **Problem faced while designing the set**

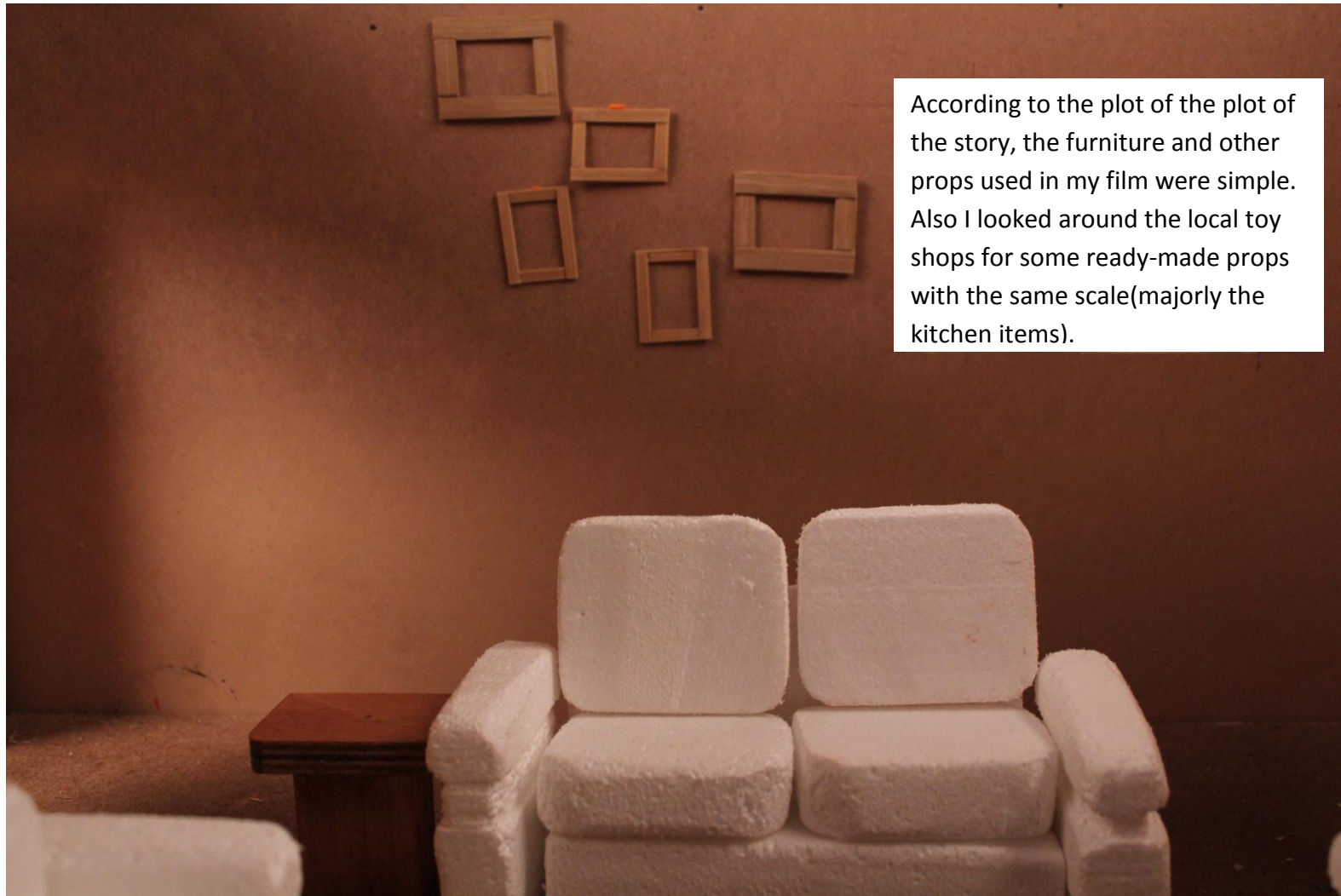
Inspite of using a good quality MDF sheet there was a slight bend in it which created a gap at the edges.

### **Solution:**

A slider was made to connect the two walls. Everytime when the angle needs to be changed the wall could be easily slided in or back.

## Pre-Production: Set Design- Props

---



According to the plot of the plot of the story, the furniture and other props used in my film were simple. Also I looked around the local toy shops for some ready-made props with the same scale(majorly the kitchen items).

# Pre-Production: Set Design- Props

---

## Hall Room



### Television

Grandpa and grandma had this tv since their marriage. Made using thermocol then painted using acrylic paint.



### Lamp

The top was is made using coil technique with bamboo. Holding it with a metal wire and themocol base covered with clay



### Pot

Made using wet clay. I added artificial plant on it. Plus added few flowers made of clay.

# Pre-Production: Set Design- Props

---

## Hall Room



### Refrigerator

Got it from a toy store. Luckily it was of the same scale as that of my set.



### Cabinet and the table

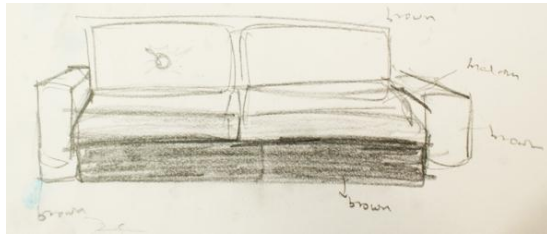
Made them in our wood lab.



# Pre-Production: Set Design- Props

---

## Hall Room



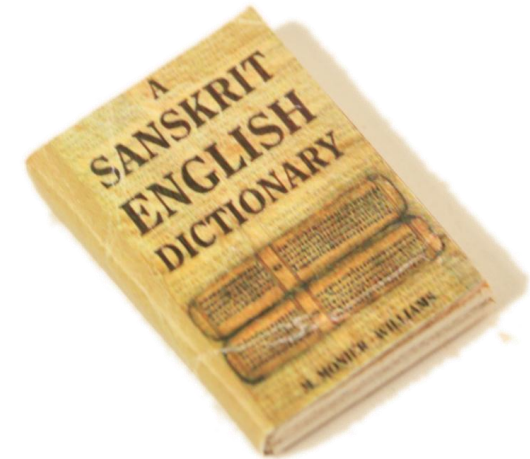
### Sofa set

Made out of thermocol , sponge sheets and wood.

# Pre-Production: Set Design- Props

---

## Hall Room



Books were made by taking prints of different book cover and sticking them onto a piece of wood which was giving the feel of book pages.

# Pre-Production: Set Design- Props

---

## Hall Room



### Remote control

Made using m-seal and clay



### Clock

Got an old wrist watch from a watch repairing shop and stuck it to a wooden base



### Newspaper

Scanned the original newspaper and printed it



# Pre-Production: Set Design- Props

---

The photo frames were made out of bamboo and I got the calendar printed.



## Pre-Production: Set Design- Props

---



The switch board was out of thermocol and m seal and the windows. It was made in our plastic lab using styrene and acrylic sheets.

# Pre-Production: Set Design- Props

---

## Bedroom



**Bed**



**Quilt**

Stitched by my mother



**pillows**

# Pre-Production: Set Design- Props

---

## Vegetable Basket

The basket was made out of bamboo in our bamboo studio and the vegetables were made using clay.



# Pre-Production: Set Design- Props

---

## Kitchen

I looked for them in the market and luckily got few of them of the same scale as that of my set.



# Pre-Production: Set Design- Props

---

## Kitchen

Few of the below items were made and the rest I got from the kitchen sets available in toy stores.



# Pre-Production: Set Design

---

## Final Set



Hall Room



Kitchen







## Pre-Production: Lighting

---



Lighting, one of the most important things when doing claymation. The lighting can sometimes make or break your scene, also good lighting makes editing and chroma keying much easier.

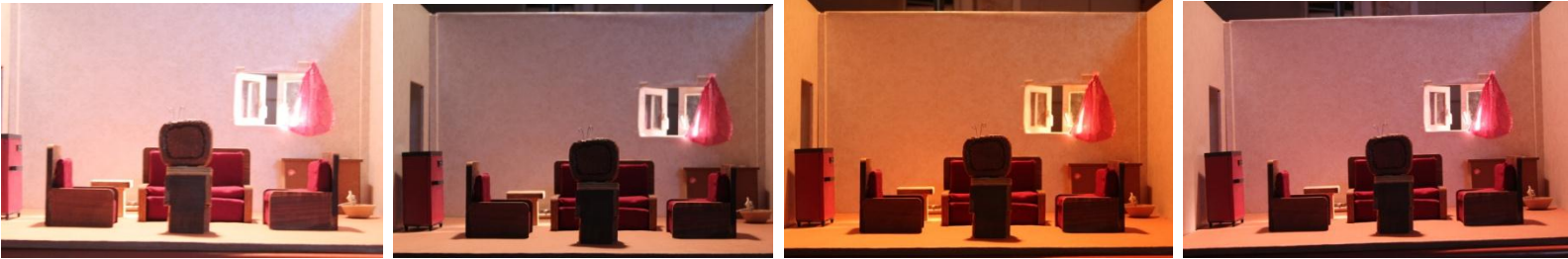
My film had all the day the scenes except one of night, so I used one back light(orange) coming through the window which acted as sunlight. There weren't any extra bulbs or tube light lighting used as it was a day scene.

Then there was a fill light in the front to fill in the shadows. To avoid multiple shadows this light is often called 'soft light' and I used a dimmer to dim the light according to the requirement.

Another side light was used coming from the kitchen. Butter paper was used to dim it.

For the night scene a blue gelatin sheet was used to create that effect.

# Pre-Production: Lighting



# Production: Animation

---

This was the most challenging part of the whole process. As I was doing it for the first time it took me time and various attempts to get what I wanted.

I didn't want a very smooth animation, so the number of in-between was less.

For almost every shot I used to act it out myself. Also for some complex shots I used to ask my friends to do it out which I used to record and study the movement and timing.



Acting for animation

# Production: Animation- Expression and Lip Sync

---

As per my research I had three options with me to create expressions



Tried using this method but didn't find it convenient.

1. Substitution– replacing lower jaw, like the one done for Wallace by aardmans.
2. Fitting replacement mouth, Example: Rex the Runt and P Js by Will Vinton.
3. Constantly sculpting, as done with morph (one of aardman's character)

I tried all the three methods and found the third one to be more convenient for me to animate and also suiting the kind of look I wanting my characters to have. Thus decided to go with it.

To bring out that old characteristic and toothless feel on the grandpa and grandma's faces this was an apt decision.

# Production: Animation- Expression and Lip Sync

---

## Few Expressions

Sculpting constantly using the tool which comes inside the nail cutter.



## Production: Animation- Expression and Lip Sync

---

As for marrying sounds to the lip movement I did the re-sculpting of the face frame by frame, which is called 'animating through'.

I used to create every movement of the lip by using a mirror and studying my own lip movement.

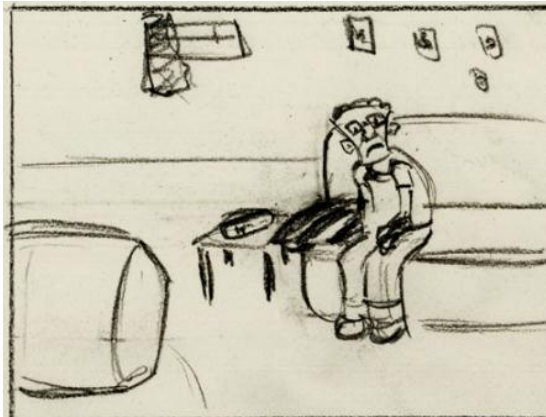


Dadi- 'Arre Kamla'



# Production: Animation

---







## Production: Camera and Capturing

---

I used a canon 550D and the capturing was done using EOS utility software which comes along with the camera. It has the feature of live view and also the aperture, shutter speed and other features can be set directly on the software.

The camera was connected to the tripod and attached to the laptop through a USB cable. The capture could easily be done using this software by simply pressing spacebar, thus avoiding any jerks.

Double frame method was used to capture the movement ie. I clicked 12 different images for every second of the film.



## Production: Lenses



As the set was quite small so I wanted a lens that could give me a good depth of field so as to exaggerate distance between characters or the background. 50 prime lens served the purpose quite well.

Where too much of depth of field was not required I used a 18-55mm lens.



Using a prime lens



Using a normal lens



## Post Production: Sound and Music

---

Although basic sound was already prepared during the pre production stage but was revised later when the final shots got prepared.

Dialogues had an important role in my film and the artist had to act rather than just speaking the dialogues. I wanted the dialogues to be in hindi, so had to look for someone who is well conversant in hindi as well as well as can act good, so I asked our Prof. CP Narayan to give the voice over for grandpa and it worked well. One of my junior did the voice over for the grandma who had to flip between an expression of anger and love.

Various other sounds and Foleys were recorded so as to make the scenario more believable. For example opening the newspaper, sound of grandma's and Kamla's (vegetable seller) bangles. Another junior gave the voice for the cricket commentary and the yoga scene of the film.

Since major part of my film consists of the morning scenes so I used different bird sounds for creating an ambience.

Although this was working well in itself still I went for a background score and called a flute artist. The film had an Indian touch, earlier I had put a piano music while making my animatics which spoiled the whole mood of the film and was not convincing at all. After a discussion with my music guide I decided to use flute for my film. Thus I called a flute artist (student of IIT). He designed the signature sound for the grandpa. As the film was humorous so the flute had to support it.

I feel the sound has brought my film to life, I tried my level best to take care of the tiniest details which helped me in making my film better and more believable.

# Post Production- Effects, Editing and Compositing

---



## Effects

The effect of burning stove and smoke coming from the halwa was created using adobe photoshop and after effects.

For the shot when grandpa breaks grandma's glass jar in the kitchen a real hand was used, covered with clay. The wrist of the hand was covered with the same cloth which was used for grandpa's shirt. The lighting was later matched using after effects.

For the morning shot, the birds were made in Autodesk Maya and later composited using adobe after effects.

# Post Production- Effects, Editing and Compositing



## Timing

Another major challenging area was setting timing. The images were renamed in a sequence and then brought into after effects. Time- remapping in Adobe after Effects was used to set the timing. Changing the pace of animation and giving holds at the required places.

## Editing and Composting

Once the shot was timed, I took the rendered targa files into premiere and then edited it along with sound and music. Later the required amount of color correction was done.

# Learning and Conclusion

---



This was my first attempt with clay animation. Aardmans had always been my inspiration and here at IDC I got a chance to perform experiments without worrying much about the final outputs.

Clay was a difficult medium to handle and it tested my patience to the fullest. I had to redo various shots just because the lamp got shifted slightly or there was a subtle difference in the light due to the fluctuation.

Also I understood that it wasn't a 1 person's job. It was quite difficult tough for me to handle both animation and camera for capturing together so I used to ask my friends for help.

Also I learnt that pre production plays a major role in stopmotion animation. My guide helped me with that. Instead of shooting scene by scene my guide suggested me to separate the shots according to the camera angle. This was time saving as for every scene I used to take all the shots which were from a particular angle and then shifts the camera.

# References

---

- For story building
  - Mary and Max <http://www.youtube.com/watch?v=VBwvL4-XxA4>
  - Up (pixar) <http://www.youtube.com/watch?v=xd32tqJ2Hws>
- Creating 3d Animation by Nick Park
  - History of claymation
  - Complete process involved
- Various short animations
  - A Perfect Date by Girija Likhite (one of my senior) <http://www.youtube.com/watch?v=JBbQUeLGOVE>
  - The Gift by Himali Vadalía (one of my senior)
  - The big snit, <http://www.youtube.com/watch?v=90SluSIVB8>
- About old age <http://www.britannica.com/EBchecked/topic/426737/old-age>
- For all sort of queries related to claymation <http://www.animateclay.com/>
- Experience of various clay animators
  - <http://www.tasionline.org/tag/clay-animation/>
  - <http://www.youtube.com/watch?v=m2HpkP0fytg>