

The Production Process of the Stop Motion Animation: Dear Bear

Analysis of story, characters and set

Anna-Kaisa Nässi

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ABSTRACT

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NÄSSI, ANNA-KAISA

The Production Process of the Stop Motion Animation: Dear Bear An in-depth analysis of story, characters and set

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The purpose of this thesis was to explore the production process of stop motion animation through an artistic research method, in order to create new understanding of the process from the perspective of a novice. Focusing on story, character and set design, the thesis explored the production process of the animation, *Dear Bear*, in congruence with historical and theoretical background research.

The first part of this thesis focused on identifying the facets of the emerging artistic research method. In this part other parallel research methods are also explored, resulting in a personal methodology to match the subject.

The second part of this thesis focused on necessary background knowledge. What is stop motion, what kinds of stop motion are there, as well as an investigation of its history.

In the third part the production process of Dear Bear is explored from the perspective of story, character and set design. In order to create a successful production all three elements have to work together, and care and attention have to be paid to each one for the others to succeed. For an amateur without the vast budget of a feature film, limitations must be realized and compromises must be made. However, despite the tediousness of the art form, and the many hurdles, the process of creating stop motion animation is what truly appeals to those who enjoy it.

Link to Dear Bear: https://vimeo.com/92749819

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5

INTRODUCTION

Stop motion animation captures my attention in a way that no other form of animation

or film can. Perhaps this fascination has its roots in my inexplicable attachment to

stuffed animals. As a toddler it began with a Minnie Mouse souvenir from my god-

mother, which still resides in my home; with her greyed skin, tears, and cataract left-eye

as evidence of my love. Not only did Minnie Mouse follow me across oceans, to the

zoo, and my first days of school, but she also had over 300 friends at home whom I

would sit with for hours acting out their various personalities and truly believed they

had feelings. All of this may sound rather typical for a child, and while I will not dis-

close the exact age, I will admit that this carried on far past the acceptable realm of

time.

These may sound like the confessions of an insane person, and perhaps there is some of

that, but my point is to express my somewhat cockeyed ability to connect with the inan-

imate and explain my passion for making them animate. A few years ago I began sew-

ing my own stuffed animals and while as a child sitting down and acting out their lives

would have sufficed, this time I decided to bring my creations to life in a new way,

through stop motion. These early animations were crude and short, with mere hours

between idea and finished product. Nonetheless, I loved the finished product and ex-

plored paper as another stop motion medium for a class assignment. Due to its time

consuming nature a more intricate model animation has been out of question, however

with classes and internships out of the way, my thesis project allowed the perfect time

for such a creation.

In my thesis I will explore the production process of my own stop motion animation,

Dear Bear, following the artistic research method, which obtains knowledge through

practice. I will present the progression of the project through the story, character and set

development and analyse my personal journey as scriptwriter, animator and producer.

This analysis will hopefully bring new insights for myself, and others wishing to enter

the world of stop motion animation.

Link to Dear Bear: https://vimeo.com/92749819

2 RESEARCH METHODOLOGY AND THEORY

I never made a painting as a work of art, it's all research. - Pablo Picasso

2.1 Artistic Research Guidelines

Artistic Research, also known as art-based research and most descriptively, practice-based research, refers to a relatively new methodology wherein the process of creating art is used to obtain knowledge (McNiff 2008, 29). In other words, the creation of a creative piece includes both the research, and the object of research.

Attaching the word 'research' to the creative process from a more traditional scientific point of view is slightly controversial. Artistic research methods call for creativity and flexibility, allowing the researcher, or artist, to mould their methodology to their study as the research progresses. This is not to say that one simply goes through the motions of the process, presents their final product and slaps the word 'research' to the end of it. Artistic research is a continuously reflective process that requires active reflection and analysis.

Due to the relatively young age and inherently free form nature of artistic research, there is no strict method to follow. However, to shape my methods I will be predominantly following the guidelines set forth by Mika Hannula (2004, 72–73), director of the Helsinki Academy of Fine Arts, who believes there are six fundamentals that all artistic research should follow. Below I will present a summary of these fundamentals with a description of how they were met in my thesis.

2.1.1 Research subject and intent are clearly stated

The first, and perhaps most obvious factor is for the researcher to clearly define both the subject and aim of the research. This component was handled in the Introduction, however will be referred back to throughout the thesis as my interest and purpose are at the centre of all proceeding knowledge.

2.1.2 Research is given context

The research must be placed within an existing framework through a means of relating it to previous research. This was done through historical and theoretical research and discussed in the Theoretical Starting Points chapter and also referenced in the presentation of my journey in chapter 4, Dear Bear: Pre-Production and Production.

2.1.3 Justification of the research method

The researcher must defend their chosen research method and present their independent viewpoint regarding previous claims about the method and subject (Hannula 2005, 116). As stop motion animation is an art form, I see no other research method that in its entirety would be better suited for exploring the production process than an artistic research method. The inherent idea of artistic research being a methodological map of reflection allows me to explore the process through personal assessment and makes it most valuable to my own development (Hannula 2004, 71).

My divergence from Hannula's six fundamentals occurs in my inclusion of historical research. My goal with this project was to immerse myself into the world of stop motion animation and I felt that in order to understand and draw conclusions about the processs, I needed a basic understanding of its past. I would also argue that Hannula (2005, 114-116) in a sense presents contradicting ideas. On one hand, he believes the researcher needs to choose a single method, and thus eliminate the use of other research methods such as historical research. However, he also states that the research must be given context. I believe that an inclusion of mixed methods can enrich the scope of knowledge, quality of results and provide context.

2.1.4 Research presentation

Artistic research should be presented using a known literary style in an open, honest and logical manner which like the research itself, is reflexive and shows humility. Subjec-

tive research can easily turn into uninteresting narcissism, and thus it is especially important with artistic research to present the individual experience and resulting opinions in a way that is relatable and sparks interest of others interested in the subject. (Hannula 2005, 116.) While I wish not to downplay my contentment or in turn convey a fake humility, I believe a narcissistic tone would be difficult to achieve when the trials of my artistic process are presented. Embarking on this journey was an ambitious undertaking that was designed to challenge myself to be innovative, flexible and most importantly to learn and develop my skills as a professional.

2.1.5 Evaluation of results

Juxtaposing to scientific research, artistic research does not set out to find a preconceived answer. The final results bring forth new perspectives, connections to existing themes and unexpected insights that will be realized through critical self-assessment. (McNiff 2008, 40.)

2.1.6 Reformulation of research practices

Artistic research as a method is by no means commonplace, and thus the researcher must take care in understanding the method, communicating the method, as well as finding new modes of action and opportunities. This was communicated in this chapter, however the specific means of communicating my own "map of reflection" will be discussed in the next sub chapter (Hannula 2004, 71).

2.2 My Map of Reflection

Having a background in anthropology, I could not help but draw connections between the artistic research method and the qualitative research method of participant observation. While certain scholars seem to be fighting for the recognition of artistic research at the level of a natural science, others believe the method should open itself up to the humanities and cultural studies. (Lesage 2009, 7) I see many similarities between the two and thus found it fitting to employ a qualitative method of data collection and analysis

closely related to that employed in participant observation in anthropology as my map of reflection.

Participant observation in the context of anthropology typically involves four main stages: "making friends, being where the action is, putting it all down, and putting it all together." (Howell 1973, 367). In less charming but more literal terms: getting to know the subject, immersing oneself in the subject, recording observations through field notes and reflexive journals, and analysing observations based on recurrent themes. With these phases as inspiration, and the guidelines of artistic research in mind I constructed my own method of data collection and analysis. (table 1)

TABLE 1. Phases of research methods and implementation

Phase	Description, means of implementation	
Theoretical research (Mak-	Familiarization with the history of stop motion	
ing Friends)	animation, theoretical and practical methods	
Practical research (Being	Production of my own stop motion animation	
where the action is)		
Recording Observations	Pictures, notes, official production archives and	
(Putting it all down)	introspective journals	
Observation analysis (put-	Analysis of my own work and finding and pre-	
ting it all together)	senting recurrent themes to aid myself, and other	
	budding stop motion animators	

3 STOP MOTION ANIMATION PRELIMINARY THEORY

3.1 Types of stop motion animation

Stop motion animation is a technique that involves creating the illusion of 'motion' through the physical manipulation of objects, both inanimate and living. Incrementally moving an object and photographing individual frames which are then pieced together, creates the illusion of movement. Below is a general list of the different types of stop motion animation according to Andrew Selby (2013, 135–143). The list is rather comprehensive, however it is important to note that not all stop motion animations will fall under a single category and mixed mediums are rather common.

3.1.1 Sand and oil-paint animation

Sand and oil-paint animation involves placing a substance such as sand or oil onto a non-porous surface (picture 1 & 2). The oil or sand is manipulated by the animator and photographed using a camera that is secured above by a rig. (Selby 2013, 136.) Even though this method creates beautiful results that can be further manipulated with light, there is the downside of the original artwork being lost in the process of creation (Purves 2008, 142).



PICTURE 1 & 2. Ferenc Cakó, award-winning animation film-maker who draws images using sand on backlit surfaces (Cakó 2014).

3.1.2 Simple paper cut-outs

Using paper cut-outs is a rather self-explanatory and simple form of stop motion which involves taking pieces of paper, card or cloth, cutting, tearing or folding them into desired shapes and then, as with any stop motion technique, manipulating them incrementally between photographs (Selby 2008, 137). Selby (2008, 136) places this type of animation under the same two-dimensional category as sand and paint animation, however I omitted this distinction due to my own experience with the medium. While it is common to work on a flat surface and employ a rig for paper cut-outs, when I used the technique in 2011 I opted to keep everything upright and gave the animation some dimension by keeping distance between the different elements (picture 3).



PICTURE 3. Screenshot of the 2011 paper cut-out animation that I co-created.

3.1.3 Armatures

Armatures are structural frameworks that act as a base for stop motion models. The complexity of the armature depends on the necessities of the animation. A simple wire armature will suffice for simpler movements and a shorter production, however a ball-and-socket armature made of steel or wood will provide a durable and reusable base. (Shaw 2008, 78).

3.1.4 Puppets

Puppets have a long-standing history in our culture, particularly in Eastern Europe and Asia where they have been employed to explain and pass on myths and legends (Selby 2013, 138). Puppet stop motion animation simply refers to any animation that employs puppets. This puppet can be complex and have a built in armature, or it can be a simple hand puppet.

3.1.5 Claymation (Clay animation)

Pioneered by Helena Smith Dayton around 1917, claymation is a form of animation that involves the construction and manipulation of characters, sets, and props with plasticine (picture 4). Plasticine is a common medium in stop motion due to its pliability and sturdiness. It can be used for simple animations, and more complex productions with the addition of armatures. (Selby, 2013, 142)



PICTURE 4. Wallace and Gromit, arguably the most recognizable claymation characters (Aardman).

3.1.6 Model and object animation

Though the name is rather broad, model and object animation refers to stop motion which is used in conjunction with live-action, such as the work of Ray Harryhausen, who will be discussed further in the history of stop motion (Selby 2013, 143).

3.2 History of Stop Motion Animation

3.2.1 Accidental Discovery: Georges Méliès

A jammed camera while filming a scene for his 1896 film *Place de L'Opera*, and the resulting effect of "a Madeleine-Bastille omnibus chang[ing] into a hearse and men into women", caused French film-pioneer and magician by trade Georges Méliès to first stumble upon a camera trick known as the 'frame to frame trick effect' or stop motion replacement. Méliès went on to employ the effect deliberately in his later works including *The Haunted Castle* (1896), *The Astronomer's Dream* (1898) and *Cinderella* (1899). (picture 5 & 6) (Harryhausen & Dalton 2008, 38.) Méliès' work was not employing animation per se, but his accidental discovery would inspire other film makers around the world to uncover the full potential of this effect and lead it towards becoming a medium of its own.



PICTURE 5 & 6. Re-mastered screenshots of *The Haunted Castle* (1896) As the King in red charges to stab the ghost, it turns into a skeleton (CBGP Silents 2012)

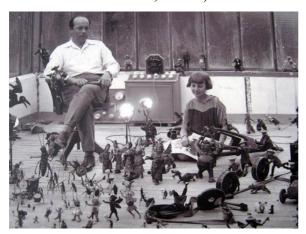
3.2.2 The first stop motion animations: James Stuart Blackton and Emile Cohl

The first known stop motion animation to use three dimensional models in America is believed to be James Stuart Blackton's 1898 short film, *The Humpty Dumpty Circus* (Priebe 2007, 9). The film depicted wooden toy animals and acrobats performing tricks, but like many early film creations the piece has since been lost. Luckily many of Black-

ton's works have survived, including his 1907 *The Haunted Hotel*, which showcased inanimate objects moving on their own, including a bottle of wine which poured itself. This film is also believed to be responsible for inspiring another big name in animation history, Emile Cohl. Though more commonly known for his work in graphic animation, Cohl made a huge contribution to model stop motion animation through his work with puppets and stick figures. (Harryhausen & Dalton 2008, 39-42.)

3.2.3 Puppet Animation: Wladislaw Starewicz¹

In Eastern Europe, Russian filmmaker and entomologist Wladislaw Starewicz pioneered puppet animation. Starewicz began his film career by creating three live-action documentaries for the Museum of Natural History in Kaunas (picture 7). However, when planning his next short film on the subject of stag beetles, the aforementioned Emile Cohl's *Les Allumettes Animes (Animated Matches)* would play a big role as his inspiration. Starewicz knew that under the harsh camera lights his desired subject, the stag beetle, could die. However after seeing Cohl's film and working out how it was made, Starewicz decided instead to use the preserved shells of dead beetles with re-attached legs and mandibles to create puppets. Over the course of his career, he would develop his technique of puppet construction with the use of steel ball-and-socket armatures and create a number of outstanding films that would serve as inspiration to modern day stop motion filmmaker Tim Burton, who in turn has served as my main inspiration. (Harry-hausen & Dalton 2008, 44-45.)



PICTURE 7. Wladislaw Starewicz pictured among a myriad of stop motion puppets (Northwest Chicago Film Society 2012).

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¹ The spelling of his name is uncertain, few variants include: Ladislav Starevich, Wladyslaw Starewicz, Ladislaw Starewicz or Starewitch (Harryhausen & Dalton 2008, 44)

3.2.4 Model animation: Willis Harold O'Brien and Ray Harryhausen

Willis Harold O'Brien and Ray Harryhausen are perhaps the biggest names in the world of stop motion animation and according to Harryhausen and Tony Dalton (2008, 114), responsible for achieving the three major landmarks in the early years of model animation history.

The first landmark comes from American Willis Harold O'Brien, who combined liveaction with animation in the same frame, through the use of miniatures and rearprojected live action footage. This new use for model animation can be seen in his film *King Kong*, made in 1933 (Shaw 2008, 4) (picture 8). The second and third landmarks would come from O'Brien's assistant, Ray Harryhausen.



PICTURE 8. A screenshot from *King Kong* (1933) showcasing the combination of stop motion and live action (Frazer 2012).

Harryhausen is not only a current inspiration to the majority of film-makers, animators and visual effects artists, but also the creator of Dynamation, the second landmark of stop motion model animation. In 1949, as a response to Hollywood cutting back on production costs, Harryhausen came up with Dynamation, an easier and significantly more cost-effective way of combining live action with stop motion model animation. This new technique would first appear three years later in his first solo feature film *The Beast*

From 20,000 Fathoms. Whereas Dynamation was a big leap in keeping stop motion around for the use of visual effects, an even more significant contribution and the third landmark, was Harryhausen's ability to inject real character into his models. (Harryhausen & Dalton 2008, 120.) Even beyond these landmarks, Harryhausen would develop the techniques of the actual animation process in a way, which has continued to influence animators to this day. Although I in no way question the significance of their contributions, it is fair to consider that these 'landmarks' are in fact from Harryhausen's own perspective, and thus giving credit to his creative muse and himself may be slightly ignorant of the contributions of others.

3.2.5 Stand alone art form: Jiří Trnka



PICTURE 9. Trnka animating a puppet for Midsummer Night's Dream (BFI 2012).

While the likes of O'Brien and Harryhausen focused on using models as visual effects in congruence with live-action, in Europe animators like Czech Jiří Trnka were responsible for pioneering the medium as a stand-alone art form. Due to Eastern Europe's tradition of puppeteering, it is no wonder that the art of puppet animation thrived in this part of the world. In the 1950's and 60's, Trnka honoured this tradition through his stop motion films, most famously in his 1958 Shakespearean adaptation, *Midsummer Night's Dream*. (picture 9) (Shaw, 2008, 2.) Although the use of models as visual effects would become almost obsolete due to computer generated imagery, stop motion animation as a

stand-alone art form would continue to thrive, despite a mistaken and unsettlingly common belief that it is dead. With the likes of Henry Selick, Tim Burton and Nick Park always pushing the medium further, stop motion has no end in sight. Furthermore, creators are using the actual method as a marketing tool. The trailer for the upcoming film, *The Boxtrolls (2014)*, features clips of the puppets being crafted and manipulated suggesting that the production process fascinates both creators and viewers alike (picture 10-13). This shared fascination proves that stop motion is surely here to stay.



PICTURES 10-13. Screenshots from the trailer of the upcoming film, *The Boxtrolls* (Laika 2013).

4 DEAR BEAR: PRE-PRODUCTION AND PRODUCTION PROCESS

The elements of a stop motion animation are unavoidably intertwined. Susannah Shaw (2008, 1), compares the process of stop motion to playing God. We as animators do not simply play with inanimate objects, we first have to create their world, determine what makes them tick and only then perform. Not a single element can be executed as a separate entity; the story, characters and set are all apart of the same world and need to form a symbiotic relationship in order to deliver a strong and cohesive message. However, for the sake of a coherent presentation of my work I will be dealing with each aspect individually.

4.1 The Story

At the beginning of this thesis I shared my child-like attachment to stuffed animals. While it is perhaps for the best that I no longer play with these toys, I am envious of my past self who did so with such ease. Though I revelled in the opportunity to spend quality time in creating a stop motion animation, the sudden freedom resulted in an unprecedented creative block. Ideally the production process of any creative project should begin with an idea, not an outlet (Purves 2008, 91).

At first this mental block did not cause too much concern. I was convinced an idea would come and spent the first few weeks immersing myself into the world of animation. I read literature and spent hours upon hours of doodling while relishing in the works of Henry Selick, Adam Elliot and various shorter animations courtesy of Short of the Week (shortoftheweek.com). Doodling, according to Andrew Selby (2013, 58) has a disarming quality that allows expression without the fear of failure, however I would argue that this disarming quality meets its match in an impending deadline.

Though the plot of my story did not come about through this method, looking back on some of these doodles, I was able to find elements that survived into the final animation. This supports scientific investigations, which suggest that doodling can occur without the full awareness of the creator, and perhaps the seed of my story was planted earlier than I realized (picture 14 - 16) (Selby 2013, 58).



PICTURE 14 - 16. Early doodles, which have corresponding features to existing elements in the animation: a letter, a forest location, Bear with a present, flowers.

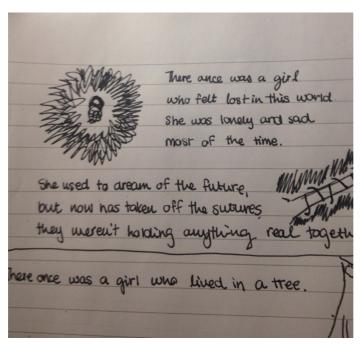
4.1.1 Establishing and surrendering to parameters

Feeling unconvinced and unproductive with my doodles, I spent more time actively trying to form a story. In order to narrow down my thought process, it was important to establish some parameters (table 2). These led to a form of a decision-making heuristic that would make the idea process more efficient. If the story didn't fit the parameters I knew I needed to move on.

TABLE 2. Parameters of the story

Parameters	Reasoning	Consequences on the story
Short, about	One minute in 25 fps comes out to 1500	All the elements of the sto-
1 minute	pictures. For a single animator this is al-	ry from themes, characteri-
	ready a lot of work and very time consum-	zation, to exposition have to
	ing, thus I felt it unwise to plan anything	be established quickly.
	much longer.	
1 animated	Having never built a stop motion puppet I	The personality of the main
character	felt it ambitious enough just to do one.	character would need to be
	And once again keeping in mind the phys-	shown through means other
	ical animation process, simplicity was key.	than direct interaction.
1 location/	Building a scale model set not only re-	The story would be relative-
set	quires a lot of space, but a lot of detailed	ly sedentary.
	work. Furthermore I had to keep in mind	
	funding, as the entire budget of this anima-	
	tion would be coming out of my own	
	pocket and construction materials can be	
	expensive.	

While these parameters were intended to guide my thought process and narrow down my ideas, at first they felt more restrictive than helpful. However from the perspective of creating an animation for a client rather than for free creative expression, I comforted myself with the knowledge that working under restrictions would be beneficial for my future. Furthermore, restrictions and realizing ones limitations are a natural starting point for any creative project. The next few weeks were spent with my brain in constant story mode. I forced connections where they did not exist, wrote bad poetry to accompany my doodles in an effort to emulate Tim Burton, and spiralled into a self-pitying rut (picture 17).



PICTURE 17. Creative block visualized

4.1.2 Formulating an idea

Our subconscious can be strange, because despite all the hours I put into actively trying to come up with an idea, the initial concept for *Dear Bear*, came to me while sitting in a local coffee shop not trying to come up with an idea. For anyone in a creative block, being told to not think about it can be the most frustrating, yet it is the best advice to hear. While clichéd philosophies like this can feel unhelpful, especially when facing a deadline, they have become sayings for a reason.

The inspiration came from the colour scheme of the coffee shop. I looked around at the colours and thought 'my character's home should look like this, and pulled out my colour pencils and notebook and scribbled down a colour palette. Suddenly knowing what their home was like, I knew what their life was like, who they were, and the kinds of problems they could have. Before I knew it I was sketching out a treatment, skipping over the script stage entirely (picture 18).



PICTURE 18. An excerpt from my notebook depicting the day I came up with the story. Colour scheme top left, and the beginning of the treatment below.

4.1.3 Storyboarding

A storyboard acts as a blueprint for the production process. It encompasses important information about the scene including camera angles and movement, sounds, dialogue and setting (Selby 2013, 75). A successful storyboard should be able to communicate to

everyone involved in the film all essential information, the bigger the project the more vital the accuracy of the storyboard becomes (Shaw 2003,43). For my storyboard the inclusion of every move and reaction was not necessary, however for my personal growth and future sanity, I was as detailed as possible (see Appendix 1).

A vital tool in my storyboarding process was Chris Roman's (2008) "Storyboarding The Simpsons Way". Although in style, content and tone my animation bore little resemblance to The Simpsons, Roman provides excellent strategies for a storyboarding novice and gives valuable tips on interjecting information through camera angles and focus. The aforementioned consequences of my parameters meant that camera angles would be imperative in conveying the tone and communicating the loneliness felt by the Bear. Overall, the storyboarding experience was time consuming but extremely satisfying. It was the first full visualization of my animation and left me feeling prepared and confident for the forthcoming filming process.

4.1.4 Production influences on story

The physical production of my animation made me excited and nervous. At this point, I had already poured my time, money, and soul into the project, yet I was aware that not everything would go to plan. In a big budget animation, the details of production are ironed out to a seemingly meticulous level during the pre-production stages. Some of these steps, such as a story reel or animatic, are not only unrealistic goals for a short non-budget animation like *Dear Bear*, but also unnecessary. The inability to perform some of these stages coupled with the unpredictability of the animating process meant the production would inevitably bring up some surprises.

It was in the second sequence of my animation when I became aware that my one-minute animation was going to be much longer than expected. The crucial factor that I had left out of my planning, was letting gestures read. A pause after an action allows the viewer to register what has just taken place, and I had not taken these pauses into account. (Purves 2008, 221.) Pauses in animation are not empty, the character should still appear alive and ease out of their movements and thus this meant more animating and more frames. At this point I made the decision to just push through. I knew that this

would lead my production process to be much longer but I felt I couldn't compromise the length without losing the meaning of the story.

In post-production I was faced with an uncomfortable realization that there was a scene missing from the story. After Bear throws out his first letter, he writes a new letter. In my animation, however, it cuts straight to the signing of the finished letter. In my planning I thought the change of camera angle could cover this, but the timing just did not work. At this point I had already torn down the walls of the animation and mentally said goodbye to my friend the Bear who's poor wire skeleton was already falling apart. I watched the rough-cut of my animation over and over, bargaining that the scene would not be missed. Suddenly I had a paralleled experience as I watched the Bear fill with conviction and decide to share his true feelings and I knew that my own satisfaction was dependent upon this scene.

4.2 The Characters

The character creation process and production can be split into three main stages, personality development, physical appearance and performance.

4.2.1 Personality development

During the course of my pre-production, my main character would go through several physical forms, however his personality traits were quite clear to me from early on. Perhaps it had to do with the negative headspace I was in during my creative block with the story, but I always knew that my main character was going to be sad and lonely, and his happiness would come through the solution to this loneliness. Nevertheless, I did not take his personality further than this until I had settled on both the story and his appearance.

Once the idea of the story became clear, all the pieces of the character also seemed to fall into place. Though my character was clear in my mind I felt it important for the reflection of my own work to concretely express his personality and motivations. To start

with, I referred to a list of questions presented by *Corpse Bride* storyboard supervisor Jeff Lynch and jotted down quick answers (table 3) (Salisbury 2005, 27).

TABLE 3. Character building questions and answers

Question	Answer
Who are they?	A lonely Bear
What do they want?	For their friend to come back home
Where are they going?	Deeper into depression and a state of long-
	ing
What are they like when they finish?	Happy, resolved
What have they learned?	To express their emotions and to trust in
	the mutual love between him and his
	friend.
What does this character learn from this	Bear learns that others are capable of
character?	masking their feelings as well

Figure: preliminary character questions

While the list put the wheels in motion, I felt that the questions were not quite suited to my needs and did not provide enough depth. Tim Burton himself had spent ten years developing the characters of the *Corpse Bride*, a story originally based on a short 19th century Eastern European folktale. He had taken them from basic black and white, or hero and villain status and filled them out with shades of grey, making sure each character was dynamic and evoked empathy from the audience. (Salisbury 2005, 21.) Reading about this transformation inspired me to fill out my characters² through detailed character descriptions.

"BEAR"

The Bear is quiet, kind-hearted, stubborn and reserved. He lives in the middle of the woods, far away from the hustle of any action and enjoys it this way. Despite his reservations to most creatures the Bear has a best friend whom he has been with his whole life and loves more than anything. He enjoys reading, writing in his journals and most of all talking to his friend who

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² Through the character description of The Bear, I became aware that I had in fact created two characters, and despite the physical absence of Bear's friend, he plays a vital role in the story and is present through the picture, and his letters, and thus I felt I needed to find the motivation and reason for his absence.

tells the best stories. He enjoys his quiet sedentary life, and thus when his more adventurous counterpart seems stifled by their lifestyle, he encourages his friend to leave. He always puts the happiness of others before his own, and is not comfortable with strong expressions of emotion from himself or others. He keeps a lot of feelings bottled up inside.

"FRIEND"

The Bear's friend is the polar opposite of the Bear in many ways. They are loud, spontaneous, and loving. The friend sees each day as an opportunity to discover something new, and loves sharing his discoveries and hearing the contained but wise sentiments Bear who is so knowledgeable about the world. The friend knows the Bear better than he knows himself and loves him more than anything, but keeps much of this affection inside for the sake of the Bear. Though he has always wanted to see the world beyond the woods the friend quickly finds that an adventure isn't worth having if he can't share it with his friend.

The explicit relationship between the two is left undefined. As Nick Park puts it so eloquently "the relationship between [Wallace and Gromit], this is still evolving, I am not one of those people who feels he has to know everything about his characters...I almost feel that they have their own life, so really I would have to ask them about it." (Lord & Sibley 2004, 205) Furthermore I wanted the relationship to resonate with viewers in their own way, whether it be a familial relationship, friendship, or a romantic one.

4.2.2 Physical development

The physical development of a stop motion character not only takes into account the physical appearance of the character, but also the technical means of building the model.

When I decided to make a stop motion animation I jumped the gun and purchased a rather professional grade and priced steel ball-and-socket armature tool kit. When the armature kit arrived I was both intimidated and excited. In the instructions there was a list of the appropriate tools for assembling the armature. I took this as a welcomed op-

portunity to purchase some friends for my one and lonely hammer. After yet another set of expenses, I felt immensely discouraged when the hacksaw I purchased was not able to cut the steel rods of the armature into the appropriate lengths as the manual had promised. At first I feared my own weakness, but when I consulted with the metal works department supervisor of the Tampere University of Applied Sciences (TAMK) he revealed that a much heavier power tool was needed to cut the rods to their correct length (picture 17 & 18). He was kind enough to help me cut the rods, but unfortunately the strain of the machinery caused some bending to occur. While this made assembling the armature more difficult and a little bit uneven, the final armature was still functional (picture 19). Unfortunately, all this time and money would end up being a waste, as the proportions of the armature just did not work for Bear.



PICTURE 17 & 18: My hacksaw and the electric saw I ended up using.



PICTURE 19. Completed ball and socket armature.

What became known as the 'armature disaster' in my journal was a tough failure to get over. Having been so inspired by the gorgeous puppets featured in Tim Burton's *Corpse Bride* made by Ian Mackinnon and Pete Saunders, I had set my expectations much higher than they should have been. Of course I did not believe that my Bear could even compare with these revolutionary puppets and their mechanical heads, gear controlled jaws and lip paddles, but that is why the inability to even make my armature work was initially disheartening. (Salisbury 2005, 30.) After this setback I decided to focus on an aspect of the construction that I felt more confident about: creating the heads.

I vividly remember the first time I saw a line-up of all the heads used for Tim Burton's Nightmare Before Christmas. Even as someone who had an idea of how much work went into creating a stop motion feature, I had no idea that the expressions represented by the characters could have been done this way, but I knew I had to try it (picture 20 & 21). This certainly would not allow my character the vast emotive range achieved by Burton's puppets, but my character's journey would be much shorter and it was a start in learning about the process.





PICTURE 20 & 21: Bear heads

For my heads I used balsa wood balls, oven hardening clay (FIMO and CERNIT) and wooden beads. Using wood balls as the main base for the heads kept them lighter. A solid ball of oven hardening clay would have been much heavier and could have caused strain on the body as well as issues with balance. Although I used oven-hardening clay I ended up not hardening the clay as I wanted to keep the mouth pliable. For the eyes, I initially experimented with more realistic eye beads, but found that the stark white beads gave my Bear much more character (picture 22). Something about their size and emptiness gave him a little bit of a macabre look, a signature in Burton's work, and suddenly I felt like I had created a character, rather than just a generic bear. It was at this moment that I began to love the bear, something that many animators experience as a natural reaction to the physical nature and painstaking labour of the stop motion animation process (Purves 2005, 193).



PICTURE 22. Realistic eyes compared to white beads

Finding my main character and beginning to care for him was the push I needed to begin tackling the issue of his body once again. After all, if Jason Wishnow could animate potatoes convincingly in Oedipus, I could surely work with a more basic wire frame armature (Purves, 2005, 152). For the building of this simple wire-frame I referred to Shaw's (2008, 57) step-by-step guide. Once again using balsa wood and plasticine, with the addition of wires. This wire frame model was surprisingly painless to build and even though the right arm snapped towards the end of production I found it sufficiently durable. When I placed the heads on the body I used a small scarf to cover up the visible disconnection between the two parts. This also served to add a variety of textures, which visually makes stop motion so special.

4.2.3 Performance

The performance of my model, or rather my performance as an animator, was extremely important. It was, above all else, the skill I wanted to take to the next level. While building puppets can be an enjoyable experience,³ and I did learn a lot, my dream is not to become a puppet maker.

The use of video assist software (VA) has varying opinions in the stop motion world. From those who see it as completely unnecessary and stunting of their intuitive rhythm, to those who see themselves as products of the digital era and could not imagine work-

³ I enjoyed the process but unfortunately this time around it also caused a lot of stress and frustration.

ing without it (Purves 2005, 242). In my earlier experiments with stop motion I had never used any kind of VA software, but decided to employ it this time around, despite the purist naysayers.

Learning from my earlier mistake of impulsively purchasing an expensive armature, with the software I decided to act a little more cautiously and used a trial version of a popular stop motion frame grabbing software known as Dragonframe. Dragonframe is not only the choice of frame grabbing software for big budget studios such as Disney, Aardman and Laika, but was also highly recommended by more amateur animators on the message boards of StopMotionAnimation.com, who felt the only drawback was the high cost. I have to confess that when I first opened up the software and saw my set projected on the screen in front of me, I felt kind of professional (picture 6 & 7). One of the most helpful features of the program was onion skinning, which allows the animator to see both the previous frame and live image projected at the same time. Another feature that I could not imagine working without was immediate playback. The luxury of playing back a sequence instantly, and not having to wait weeks to see rushes as animators have done in the past allowed me to constantly reflect on my work and improve.



PICTURE 23 & 24. The set and the live image of the set projected on Dragonframe.

Watching back the first few frames of animation I immediately realized I was going too fast: the Bear looked like he was having a seizure. Small subtle movements are some of the hardest to animate, but through time, I began to get a sense for the right rhythm. It was extremely important to not just animate movement but to keep in mind what, or who, I was animating. I focused on making the Bear feel and move in a defeated manner. His only cause for excitement would come from the letters, and the prospect of finding out his friend was coming home.

My puppet was overall slightly clumsier than I would have liked, falling face down on occasion and complicating the production process. At times I severely distorted the plasticine on his feet to build a stronger base and allow myself to move his arms and head more freely without worrying that he would topple over the second I went to hit the shutter. The heat of lamps not only melted my face, but Bear's as well and his brown transferred to everything he touched. It was obvious that time was of the essence, and the whole production would have to be shot as swiftly as possible.

The use of replacement heads ended up being extremely beneficial in conveying emotions and brining life to the character. Even though I had only 6 heads, each was able to convey a varied set of emotions depending on the angle of the camera and the action going on around him. His 'sad reading face' was able to look serious and focused when met head on while opening a letter (picture 25 & 26). This versatility was a delightful surprise that I had not anticipated.



PICTURE 25 & 26. Same head conveying two different emotions.

Animating took much longer than I had expected, but went faster at the same time. With just two scenes done I realized that over six hours had passed, and I had been awake for 24 hours straight. In all, I ended up working for over 60 hours straight, with just two forced power naps. My excitement was pushing me through the process in an unexpected way and I suppose my brain felt I could not sleep until I fulfilled my duty and enabled Bear to find his happiness.

4.3 The World and Set

When designing the world of the animation, it was crucial to make sure that it supported the story and character design. Once again, the *Corpse Bride* served as an immense source of inspiration. In the *Corpse Bride* there are two worlds, the Land of the Living, a cold, unfriendly world inspired by a convergence of Victorian England and Eastern European architecture, and the Land of the Dead, its brightly coloured vibrant counterpart. This juxtaposition of making the world of the dead more lively than the world of the living plays into the themes of inversion and misperception common in Tim Burton's work. (Salisbury 2005, 19) While my sets could not be as lavish, and I had no prevalent theme to inject into my work, I still put as much thought into my world design as possible, to make it function with the rest of the story.

4.3.1 Exposition through set design

The set design was of immense value in communicating background information about the characters and the story. I had always had my mind set on a forest with an overtly large moon hung in the sky, and fortunately enough this played right into the story. It may seem rather unimaginative to place a Bear in the woods, however I also did not want to pick an eccentric location just for the sake of being unconventional, as it may have distracted from the story. Once I made a ridiculous flash animation about a panda in the dessert who finds a goldfish in a bowl, but that worked because everything about it was outrageous. This story is a little bit tamer and thus the location had to be supportive but subtle.

For my set I knew I would have an exterior as well as an interior. While the exterior would only be shot for two still frames, I knew that it was worth the extra effort to establish a broader location for my story. Moreover, the woods provided a means of communicating and emphasizing Bear's isolation and loneliness and would be a useful tool in conveying the passage of time later in the story, through a simple addition of snow.

The interior colour scheme of Bear's home was used to provide exposition and characterization. The colour scheme of a coffee shop was the original inspiration of the story and thus I was careful to preserve this in the final conception. Rich reds, oranges and browns were employed to give the home warmth and thus convey the warm nature of the Bear. The cooler shades of beige, green and blue not only created a cinematically pleasant contrast but also allowed the bear to stand out against his background (figure 1, picture 27 - 32)



FIGURE 1. Basic colour scheme of Bear's home.



PICTURE 27 – 32. Corresponding colours found in the animation.

Many of the props in the Bear's home provided a means of silently expressing ideas about the story and of Bear's character. The second scene of the animation displays all the letters sprawled on Bear's table, providing the backstory that Bear has been communicating with someone for quite a while. The books on his shelf and nightstand depict his intelligence and perhaps suggest a quiet thoughtful nature, and the flowers by his bed stand show a nurturing quality. Most explicitly, of course, the portrait of the Bear and his friend should allow the viewer to infer who the Bear is missing, and writing letters to. For the second half of the animation, I simply increased the amount of letters on the Bear's desk, made the flowers appear as though they were dying, and

moved the portrait of the two friends from the wall to Bear's arms as he sleeps. This not only expresses a passage of time, but also showcased the growing depression of the Bear.

4.3.2 Construction

"For about the first ten years of our career, Dave and I never had a set with more than three walls in it. That really is all you need at first," (Lord & Sibley 2004, 112).

The physical construction of the set was one of the most enjoyable parts of the whole production process and often provided a cathartic escape when other aspects of the production did not feel as if they were going according to plan.

The assembly of the exterior scenery began the day I came up with the story. I had already been carrying the idea around in my head for a long time, and seeing as it suited the story I did not hesitate to get moving. As Bear would never be shot against the exterior, I did not have to worry about scale and was able to keep the model relatively small. I began by making some miniature fir trees with string and wire, and birch trees using newspaper for the bark and natural sponges dipped in paint for the leaves. The base was built from a cardboard box and egg boxes covered in papier-mâché, painted, and then drizzled with fake moss. The house itself was made from individually painted popsicle sticks, and the roof was made of brushed out strings (picture 33 & 36).



PICTURE 33 – 35. Early construction stages of exterior set: trees, base, cottage, and roof.

The construction spanned over several weeks, and at times I did find myself questioning the real need for an exterior scene, but it was not much of an argument, as I knew the depth it provided to the overall story (picture 36 & 37).



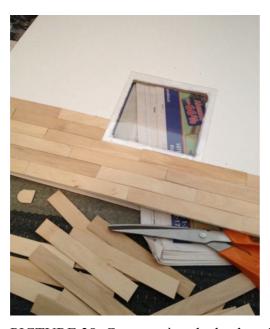
PICTURE 36. Completed exterior set.



PICTURE 37: Winter was created by dusting the exterior with a mixture of talc powder and salt, in addition to a few pieces of polyfill stuffing.

Unlike the exterior, I had to wait for the Bear to be constructed and his size determined before I could begin building a scale model home. With his head on, the Bear came out to 15 cm, which was a perfect size for building a home that was big enough to physically manipulate, but not too big that it would require too much space or too many lights (Purves 2005, 243). These were important to keep in mind, as my studio would be set up in the relatively small corridor of my apartment.

In the storyboard it was already determined that there would be a varied amount of angles, as well as some severe close-ups. For this reason it was important to keep all the walls separate so that they could be taken down and put back easily during the filming process (picture 38).



PICTURE 38. Constructing the back wall of Bear's home.

From the start, I knew that I wanted to exploit and explore texture, one of the defining features of stop motion, as thoroughly as I could. I made sure I had a mixture of soft, smooth, hard and rough textures, and achieved this by using diverse materials including an old cut up pillow case for the curtains and bedding, oven hardening clay for the mug, air drying white clay for the vase and fireplace stones, and leather to cover the miniature books (picture 39). All the textures and elements added a lot to the visuals; the only problem was avoiding knocking something over, or even brushing past something too quickly. I secured as many things down as I could but this still could not prevent the occasional accident due to my own error, or as a result of Bear plummeting head first

into the set. Love him as I might, I have to say he was a pretty heavy guy, capable of serious destruction.



PICTURE 39. The finished interior set showing a variety of textures.

5 DISCUSSION

Even though I have the painfully clichéd impulse to describe the production process of my stop motion animation *Dear Bear*, as a long arduous journey, in the scope of things it remains a microcosm of the real deal. In reality, it was not the length of the journey that made it arduous, but rather the brevity of it all and its resulting intensity. The main purpose of this thesis was to advance my own skills in the production of stop motion animation both in theory and practice.

The theoretical backbone to my production process was achieved by researching the history of the medium and a thorough exploration of case studies and practical guides. This knowledge undoubtedly prepared me for the process by clarifying the basic steps that I would have to take. Throughout my process I often referenced the work of Tim Burton, in particular his stop motion feature film, *Corpse Bride* (2005). This comparison seemed to bring about a common theme in my process, limitations.

I felt limited for not having or being a professional puppet maker, I felt limited by my time, by my space, by myself. All of these limitations would at first stunt me and make me feel desperate in my situation, but then I would rise and work around them. This is not just a crucial lesson for an indie, or amateur animator, but really for anyone embarking on a new creative journey. Limitations are often inevitable, but identifying and accepting them are the first steps in finding creative solutions and growing as an artist.

Another theme that I discovered was patience. Luckily, patience is something that can be learned, as I discovered through this process. In the past, all my attempts at animation had been completed in mere hours due to sheer excitement. Obviously I still have some learning to do, as in some ways I feel I rushed through the animation process and probably could have used some more sleep. However, this impatience was an expression of my passion and excitement, something that many new animators experience, and I believe it is both a blessing and a curse. As I keep making animations, I believe this impatience will decrease and I will be able to take on bigger projects with more focused and relaxed ease.

As the majority of the physical process remained new to me, it naturally brought along new knowledge about creating stories, characters and sets, even if I was not always successful. The reflective nature of the artistic research method required me to constantly analyse my work process and creative decisions, and thus everything had to be justified to tell a unified story. This allowed me to grow as an artist by being critical of my own work and learning to take the time to give each element of the production purpose. Being able to back up creative decisions is a strong resource for anyone working in the creative field.

Though I attempted, and in some ways succeeded in giving myself a production schedule, I found myself constantly underestimating and then over-estimating the time that each aspect would take. All in all I had three months to create the animation, but rather early on I realized that I would not be accurate in predicting how long pieces would take. I had no idea it would take me over a month to come up with a story, that it would take hours to cover a surface with Popsicle sticks, or a whole day to build the fireplace. I also realized that I could perhaps keep building and furnishing Bear's home for eternity and thus rather than constantly reassessing my production schedule and bargaining with my deadline I eventually just gave myself a date: April 10th production would have to begin, and it did.

So far I've received nothing but positive feedback for my animation. Though I'm usually quite quick to point out the flaws, most remain rather impressed and find the quirks either unnoticeable or charming. A few have also observed the isolation achieved through the first cabin scene. As mentioned in my production process, this little cabin took weeks to construct and I occasionally wondered if it was worth the effort for such a short shot. Hearing these comments validates the whole process and reaffirms the necessity of a strong setting. From the comments I've also felt a strong sense of caring and empathy towards Bear, which to me is one of the greatest successes of all. Being able to create an emotion was a silent aspiration of mine.

One of the most treasured developments that I gained from this process is that of animating the puppet. The puppet that I animated did not end up being as elaborate or controllable as I had hoped, but he was much more intricate and malleable than anything I had worked with before and I learned a lot about detailed and subtle animation performance. Although I can watch the animation now and see all the faults, I also see the development that occurs just in the span of those three minutes. Seeing this growth de-

velop on screen shows me how quickly practice can escalate skills, and encourages me to keep going, and keep making more animations.

Link to Dear Bear: https://vimeo.com/92749819

Password (if required): dearbear

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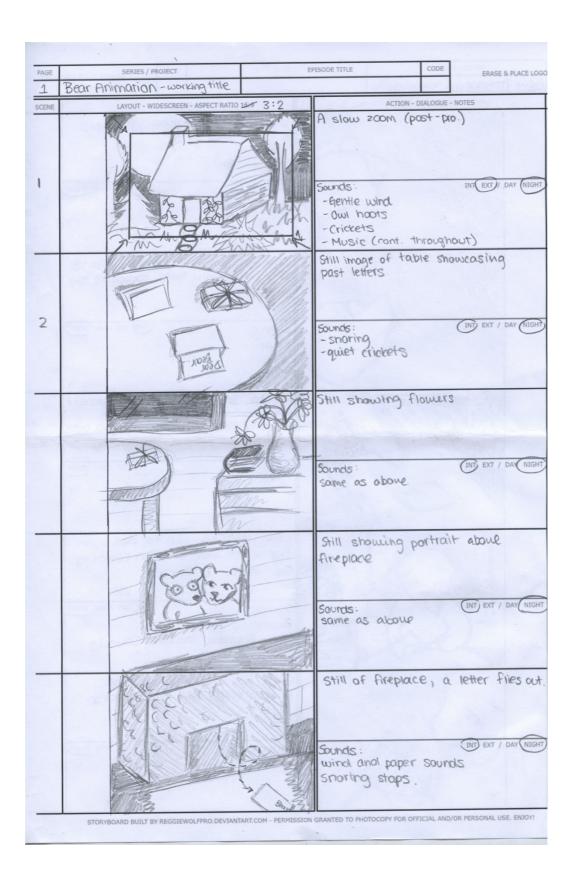
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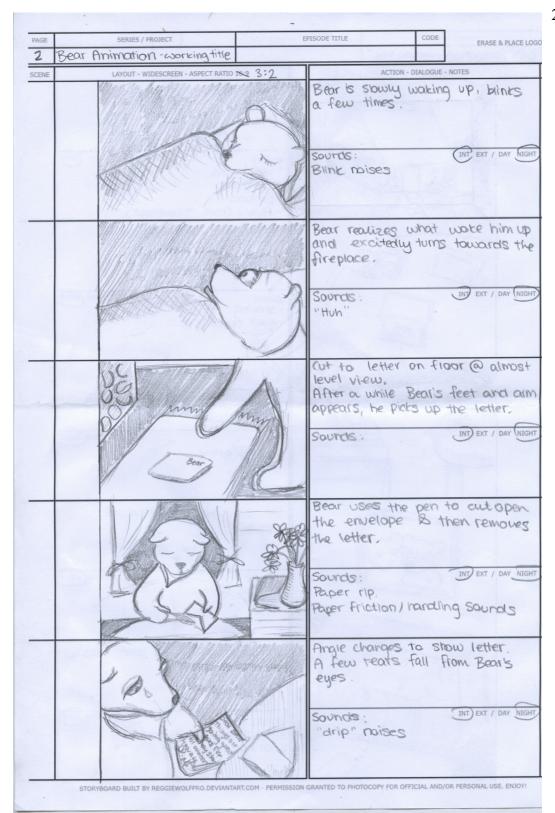
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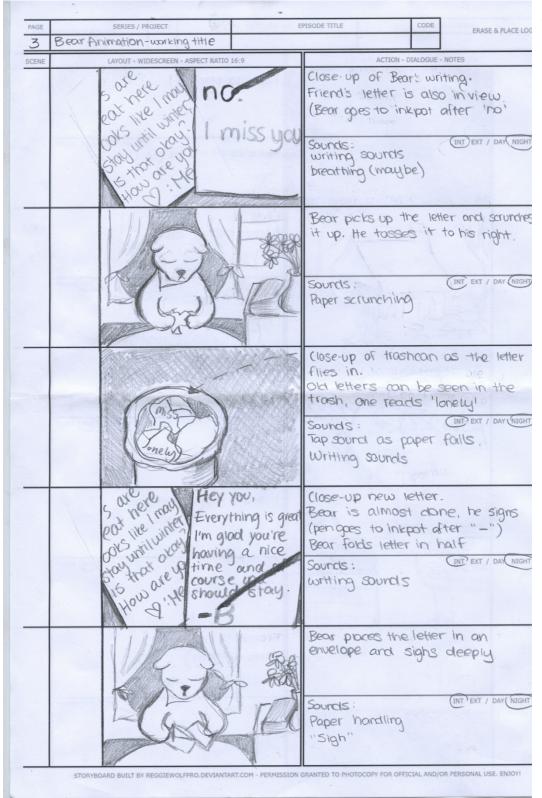
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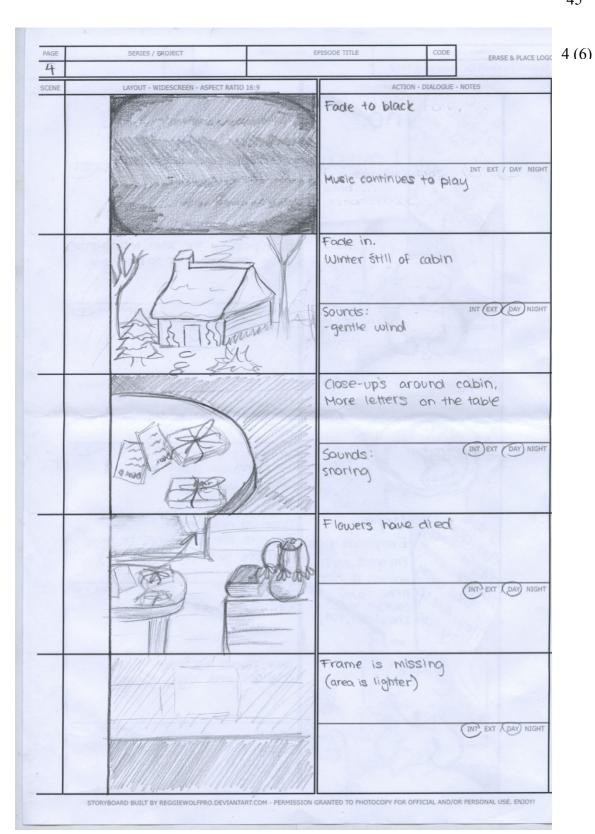


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ERASE & PLACE LOG 5 (6) PAGE SERIES / PROJECT EPISODE TITLE Bear Animation - working tit Bear's body moves up & down as he snores. The portrait falls to the ground. (blurry flowers in foreground) Snoring thud Bear blinks rapidly (startled) He looks off towards the fireplace (notices a letter) INT EXT / DAY NIGHT Sounds: - blinks - "ah!" -Cut to Bear walking across screen, Bear is blurry in the foreground INT EXT (DAY NIGHT Sound: -creaking floor boards -foot steps After getting around the table Bear uses pen to open and remove letter. He reads it INT EXT DAY NIGHT -paper rip paper handling Up top angle allows vieweer's to read letter. Bear reaches for a blank sheet. - paper flip sound (IN) ext (DAY NIGHT STORYBOARD BUILT BY REGGIEWOLFPRO.DEVIANTART.COM - PERMISSION GRANTED TO PHOTOCOPY FOR OFFICIAL AND/OR PERSONAL USE. ENJOY!

