SCULPTURAL VARIABLES IN STOP MOTION ANIMATION

By

Ebenezer Kow Abraham
BFA (Hons.) Sculpture

A Project submitted to the Department of Painting and Sculpture,

Kwame Nkrumah University of Science and Technology, Kumasi

in partial fulfillment of the requirements for the degree of

MASTER OF FINE ART (MFA) SCULPTURE
Faculty of Art Social Sciences

DECLARATION

I hereby declare that this submission is my own work towards the award of MFA degree in Sculpture and that to the best of my knowledge, it contains no material previously published by another person or material which had been accepted for the award of any other degree of the University, except where due acknowledgement had been made in the text.

EBENEZER KOW ABRAHAM ……. ……

(PG9125906) Signature Date

Certified by:

FELIX ANNOR ANIM

(Supervisor) …….. ……

Signature Date

GODFRED Y. ANNUM

(Head of Department) …….. …..……..

Signature Date

ABSTRACT

This study delved into new-media in sculpture, to produce a virtual sculpture rather than actual or physical sculpture. The objectives of the study were to create sculptures traditionally, and use them in a stop motion animation to divulge some sculptural variables apart from the mainstream canons of the art in stop motion animation. A story was generated from Ghanaian folklore to produce models or puppets, build sets and props, compose and produce musical scores and to make a stop motion animation movie accordingly; to complete the study. The actual sculptures became virtual sculpture with the aid of the video camera which captured the images into movie files. The study revealed that once the stop motion movie involved a story line, fantasy, relationship, mores, locomotion, mimesis and comedy were inevitable variables to consider though they may appear to be indefinite.

E.K. ABRAHAM

ACKNOWLEDGEMENT

Felix Annor Anim - whose supervision, dedication and attention created a congenial atmosphere for me to start and produce this project. To you, I say my gratitude is ineffable.

I would also want to acknowledge Emmanuel Rock Hanson and Ralitsa Diana Debrah who put in a lot of effort to ensure this project is a success. Thank you so very much.

Very Rev. John A.S. Abraham and Margaret Abraham- for believing in my ability to do anything I wanted to do.

My appreciation also goes to my siblings, Albert, Araba, John, Joan and Charity. I love you all.

Thanks also to Kwame Opoku-Bonsu (Zin), Benjamin Ofei-Nyarko (Bon), Samuel Quartey and Sela (NAFTI), George Kwaku Kumi (Director, Stadium Hotel), Victoria Adoe (Vicki), Harriet Payne, Dickson (cool) and Eugene Ampadu, Samuel Sarpong, Samuel Sampah, Samuel Bruce Mensah, Vincent Norvor, Afua Oteng Amoako, Kingsley Kivie Okpodu, Nyamesem Gyamfi, Emmanuel Ebo Mensah, Makafui Letsa and Anita Annan for your immense help.

My final admiration goes to Persis Joyce Eshun for helping me in ways she may never know! God bless all of you.

DEDICATION

To Neenyi Nkensen Micah, Kobina Yarko Mensah, Aba Takyiwa Micah, Naa Ayele Micah, Ayeyi Ankamah Biney, Efua Kamara Mensah and Janice Kyerewaa Abraham: These are my nephews and nieces in whom I am well pleased.

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INTRODUCTION

1.1 Background of Study

Sculpture, is arguably one of the earliest forms of art. It has seen a great revolution since it came into the lime light. Interestingly, the art continues to evolve and it almost seems like the streams of creativity in sculpture could never run dry. It even gets more exciting today, when sculptors produce their works in diverse techniques, materials and methods including new-media.

In new-media, sculpture could be aided with the computer and cameras. Therefore, virtual sculpture could come to the fore. Rendering sculpture in new-media may spawn several discourses; but this study is concerned with the variables of sculpture in stop motion animation.

Along the way, the mainstream canons of sculpture are expected to play their various roles but how stop motion animation engenders sculptural variables is expected to dominate the discourse. The how-to-do of stop motion animation is however not dwarfed by the direction of this study but a vivid description is inscribed to complete the objectives of this project.

1.2 Statement of the Problem

The study of sculpture confronts us with several choices in technique, materials and methods. In the process, there are some principles and elements such us proportion, balance, volume and mass that have been mainstream canons or a sort of guide that sculptors employ to execute their work. However, there seem to be the possibility of unearthing certain variables which might consequently be canons of sculpture especially when sculpture is rendered virtual rather than actual. This study explores some sculptural variables of stop motion animation that might have been subdued because of the popularity of the mainstream canons.

1.3 Objectives

1. To discover sculptural variables in stop motion.
2. To produce stop motion animation movie with folklore.
3. To document a thesis report of making a stop motion animation.

1.4 Justification of Objectives

1. The discovering of sculptural variables in stop motion animation will add up to the knowledge of sculptors in connection with canons of the art.
2. The production of stop motion animation movie with folklore will unmask the potentials of sculptors in the film and entertainment industry and probably promulgate Ghanaian folklore (Ananse stories)
3. The document produced will be a reference material for students and a basis for further research.

1.5 Delimitation

The research is limited to Stop Motion Animation with a story line.

1.6 Methodology

Descriptive research method was used to show how sculptural variables could be derived from a stop motion animation whereas analytical research method was employed so that certain canons of the art could come to the fore.

1.7 Facilities Available

Kwame Nkrumah University of Science and Technology, (KNUST) main library, Kumasi

College of art library, KNUST, Kumasi

The digital studio, college of art, KNUST, Kumasi

Recording studio - Centre for cultural and African Studies

Secretarial services, KNUST.

CHAPTER TWO

LITERATURE REVIEW

2.1 ANIMATION - THE HISTORY

The history of animation could be traced back from the cave art of the prehistoric men through the Egyptian tomb painting until today's computer animation. James (1997) recounts that since the beginnings of time; human beings have tried to capture a sense of motion in their art. From the eight-legged boar in the Altamira caves of Northern Spain to paintings alongside the remains of long-dead pharaohs, this quest for capturing motion has been a common theme throughout many of mankind's artistic endeavors. Plate 1 shows early desires to realize motion in art.

Plate 1: Eight-legged boar in the Altamira caves of Northern Spain.

It is this quest of motion that brought about what is now called animation. However, before the invention of cameras and projectors, there were many studies that preceded animation. For instance, in 1824, Peter Roget presented a paper entitled 'The persistence of vision with regard to moving objects' to the British Royal Society and in 1831; Dr. Joseph Antoine Plateau (a Belgian scientist) and Dr. Simon Rittrer constructed a machine called a *phenakitstoscope*. This machine produced an illusion of movement by allowing a viewer to gaze at a rotating disk containing small windows; behind the windows was another disk containing a sequence of images. When the disks were rotated at the correct speed, the synchronization of the windows with the images created an animated effect.

However, James (1997) states the development of the motion camera and projector by Thomas A. Edison and others provided the first real practical means of making animation. Stuart Blackton, issued a short film in 1906 entitled “Humourous Phases of Funny Faces” where he drew comical faces on a blackboard, photographed them, and then erased it to draw another stage of the facial expression. This "stop-motion" effect astonished audiences by making drawings comes to life.

Moreover, stop motion never came into the lime light until James Stuart Blackton experimented with “Humourous Phases of Funny Faces”. It is no wonder that this film is usually considered the first known example of animation as some of the drawn sequences are shot frame by frame. In actual fact, Blackton used a combination of blackboard and chalk drawing and cutouts to achieve animation and the film's motif was

based on the lightning or quick sketch routine from vaudeville where a drawing is done in front of an audience.

McLaughlin (2001) states that, "The Haunted Hotel" is another animated film by James Stuart Blackton. In this film the animation was created by stop motion and effects animation of 3D objects - wine poured into a glass, bread cut, and a table set without a human present. The film was a success and introduced 3D animation to the world. This was done in 1907.

Stop motion soon became popular and thus gained more interest around the world. Therefore, many artists sought to improve and diversify the technique. This consequently, gave rise to the numerous materials involved in the process. It is not so surprising that art object and for that matter sculpture consequently became a sure tool for the production of stop motion.

Taylor (1996) recounts that one of the earliest clay animation films was “Modelling Extraordinary”, which dazzled audiences in 1912. December of 1916, brought the first of Willie Hopkin's 54 episodes of "Miracles in Mud" to the big screen. Also in December of 1916, the first woman animator, Helena Smith Dayton, began experimenting with clay stop motion. She would release her first film in 1917, “Romeo and Juliet.”

On the other hand, it could be recalled that in 1902, the film, “Fun in a Bakery Shop” used clay for a stop-motion "lightning sculpting" sequence. But it was not until the latter was made that clay animation gained interest from the audiences.

On the contrary, Puppeteer Lou Bunin created one of the first stop motion puppets using wire armatures and his own rubber formula. The short, satiric film about WWII entitled “Bury the Axis” debuted in the 1939 New York World's Fair. Bunin went on to produce a feature-length film version of “Alice in Wonderland” with a live-action Alice and stop-motion puppets portraying all the rest of the characters. (Anonymous, 2007)

Though puppetry seem to have been associated with the Chinese about a thousand years before Christ, it is quiet difficult to establish it as a fact since it appears that it was practiced way back by many cultures around the world. Nevertheless, the Chinese became more popular with the art through their introduction of the shadow puppet which was projected onto parchment paper in 7000BC and their shadow theatre in China. They however did not make them into films. Plate 2 shows a typical puppetry.

Plate 2: A typical puppetry.

Conversely, stop motion is quite associated with objects so it is very possible to animate any object either artificial or natural. In that case, the animation would simply be called object animation. A notable stop motion object animator was Germany's Oskar Fischinger who animated anything he could get his hands on in a series of impressive short abstract art films during the 20s and 30s. The best example is his 1934 film, “Composition in Blue”. Fischinger was hired by Disney to animate the "rolling hills" footage used in the opening "Toccata & Fugue" sequence of “Fantasia” (1940) (Taylor, 1996).

In 1985 William Harbutt invented plasticine and this is what is used for model animation - now made famous by “Wallace and Gromit” and “Chicken Run”. Following this invention were many 3D animations using this stop motion technique including the first recorded animation advertisement for Bird's Custard powder produced by Arthur Melbourne-Cooper.

The advent of computers also brought about a new dimension in the history of animation as many artists begun to explore the medium. McLaughlin (2001) recalls that in 1950 the first computer animation was created (that we knew of) it was an animated "Bouncing Ball" done at MIT by Saxenian. Saxenian is now Dean and Professor in the School of Information and professor in the Department of City and Regional Planning at the University of California, Berkeley.

In recent times, the computer is used entirely for 3D animations. All that is needed to make an animation is readily available in the form of software or algorithms. In this

light, it appears that object stop motion or stop motion in general is outmoded. Shrek 2 (Plate 3) employed the first technical software to make light naturally bounce from one surface to another to create the entire animation. The entire production was aided by the computer.

Plate 3: Shrek 2

However, Anonymous (2007) states that although nowadays the almost universal use of CGI (computer generated imagery) has effectively rendered stop motion obsolete as a serious special effects tool in feature film, its low entry price means it is still used on children's programming, commercials, and comic shows such as “Robot Chicken”. The argument that the textures achieved with CGI cannot match the way real textures are captured by stop motion also makes it valuable for a handful of movie-makers, notably Tim Burton, whose puppet-animated film “Corpse Bride” was released in 2005.

2.2 ANIMATION ACROSS THE BOARD

Vanderburg et al (1996) define animation as the illusion of movement. In other words, Animation is simply the process by which we see still pictures move. Each picture is shot on film one at a time and is shown at the rate of 24 pictures per second making the pictures appear to move. Our eyes are tricked to see movement by applying the 'Persistence of Vision' theory.

More importantly, the persistence of vision reveals that, our brain holds onto an image for a fraction of a second after the image has passed. If the eye sees a series of still images very quickly one picture after another, then the images will appear to move because our eyes cannot cope with fast-moving images - our eyes have been tricked into thinking they have seen movement. We see this many pictures per second! The Moving Hand Theory (Anonymous, 2005).

Animation could be said to be “virtual” since the illusion of movements are created through video and are accessed through a display screen such as a TV or the computer. On the other hand, the photographic involvement provides a firm confirmation as Graça (2006) states that photography does not correspond to a neutral process of ‘copying’ physical reality but, instead, is a process of building virtual representations according a set of precise mathematical rules.

2.2.1 Principles of Animation

If you want to make great animation, you need to know how to control a whole world: how to make a character, how to make that character live and be happy or sad. You need to create four walls around them, a landscape, the sun and moon – a whole life for them. But it's not just playing dolls – it's more like playing God. You have to get inside that puppet and first make it live, then make it perform (Shaw, 2004). In order to achieve a very good work done, certain codes or rules should be studied carefully.

Brent (2007) asserts that Disney's animators are the ones who figured out how to make things look alive, how to make characters seem to be thinking and reacting rather than just moving around like automatons. Basically, there are 12 principles that animators use to guide their work. These are, Squash and Stretch, Anticipation, Follow-Through and Overlapping Action, Arcs, Ease-In and Ease-Out, Timing, Secondary Action, Exaggeration, Staging, Straight Ahead Action and Pose to Pose, Solid Drawing and Appeal. But not all of these principles would be applied for this study. Those principles that are directly related are expounded below.

2.2.1.1 Anticipation

Usually before any activity occurs, there is preparation towards the act, the action itself and the termination of the action. De Stefano (1999) attest that "Anticipation" is the preparation for the action. Anticipation is an effective tool for indicating what is about to happen and Shaw (2004) records that the anticipation gives weight to the action.

Shaw (2004) illustrates this principle with picking up a heavy hammer. The hammer would then be held up for a moment, checking the aim is right (anticipation), then it would come down fast (action) and bounce up after hitting the nail (reaction). This is a recoil movement that is emphasized by the sound (put the sound one frame after the hammer connects with the nail).

2.2.1.2 Arcs

Everything in nature will tend to move in arcs. Because the skeleton of any creature that has those forms like arms and legs will rotate around the joints in a series of arcing motions (Brent, 2007). Naturally, arcs are the most economical routes by which a form can move from one position to another because of the structure and the gravitational force that acts on it. Such arcs are used extensively in animation, since they create motion that is more expressive and less rigid than action along a straight path (De Stefano, 1999).

2.2.1.3 Ease-In and Ease-Out

Ease-in and ease-out is alternately known as Slow-in and Slow-out, or Acceleration and Deceleration. According to Brent (2007), it refers to the tendency things have to start and stop moving gradually. Example; a man is going to sprint (he got tired of playing the ball I guess, or maybe he hit a home run). He doesn't just hit full speed instantly and then stop on a dime - unless he's the Roadrunner! He'll build up speed gradually and then slow down gradually at the end. The same applies to any object set in motion... a car, a bird, or even a bouncing ball.

2.2.1.4 Timing

The principle" Timing", also known as speed of an action, is a chief principle of animation of any kind because it gives meaning to movement. The speed of an action shows how well the idea will be read to the audience.

Timing can also be defined as the weight of an object. Two similar objects can appear to be vastly different weights by manipulating timing alone. For example, if you were to hit a croquet ball and a balloon with a mallet, the result would be two different actions. The croquet ball would require more force to place it into motion, would go farther, and need more force to stop it. On the other hand, the balloon would require far less force to send it flying, and because of its low mass and weight, it wouldn't travel as far, and would require less force to stop it (De Stefano, 1999).

Besides, De Stefano (1999), states that timing can also contribute to size and scale of an object or character. A larger character has more mass, more weight and more inertia than a tiny character, therefore it moves slower. In contrast, a tiny character has less mass, weight, and inertia, therefore its movements are quicker.

Again, Timing is particularly important in illustrating the emotional state of any object or character. The varying speed of the characters movements indicates whether a character is lethargic, excited, nervous, or relaxed.

2.2.1.5 Exaggeration

This depends largely on what kind of animation you're doing. If it's realistic you might want to keep exaggeration to a minimum, but obviously for something more energetic or comical you can really go nuts. It refers not just to the way puppets and props are made, but to the action itself (Brent, 2007).

In effect, exaggeration adds emphasis to a particular movement and consequently, catches attention. De Stefano (1999) records that, however the key to proper use of exaggeration lies in exploring the essence of the action or idea, understanding the reason for it, so that the audience will also understand it. If a character is sad, make him sadder; if he is bright, make him shine; worried, make him fret. One thing is very significant, each scene is composed of several components including design, action, objects and emotion. This is shown in plate 4 below.

Plate 4 If he is angry, make him furious.

2.2.1.6 Staging

According to Brent (2007) staging is one aspect of Cinematography, which is the art of using camera angle, camera movement, lighting, composition, placement of figures among others to direct the viewer's eye. De Stefano (1999) aserts that an action is staged so that it is understood. To stage an idea clearly, the audience's eye must be led to exactly where it needs to be at the right moment. It is important that when staging an action, that only one idea be seen by the audience at a time. If a personality is staged, it is imperative that the characteristics that are peculiar to that character be clearly defined. For instance, the eyes of a shy character may be turned down.

2.2.1.7 Solid Drawing

In as much as a good or solid drawing is good. It does not necessarily have a direct bearing on stop motion animation. However, this could be translated into good rendering or fabrication. The sculpture that is used for the animation should be good by all standards and here, a good drawing is generally a requirement. Brent (2007) takes it to mean good fabrication in terms of everything working well. Your animation can only be as good as the armatures you're using, if they're poorly put together and don't work well then you're not going to get good animation out of them. They also need to be well covered; meaning whatever you use for an outer skin should function well and look good.

2.2.1.8 Appeal

Where the live action actor has charisma, the animated character has appeal (De Stefano, 1999). There is no compromise on any thing that is appealing to watch. The animation

should be made in such a way that it will bring excitement to the audience. Audiences like to see a quality of charm, pleasing design, simplicity, communication, or magnetism. A weak drawing or design lacks appeal. A design that is complicated or hard to read lacks appeal. Clumsy shapes and awkward moves all have low appeal (De Stefano, 1999). Plate 5 compares unappealing character against appealing characters.

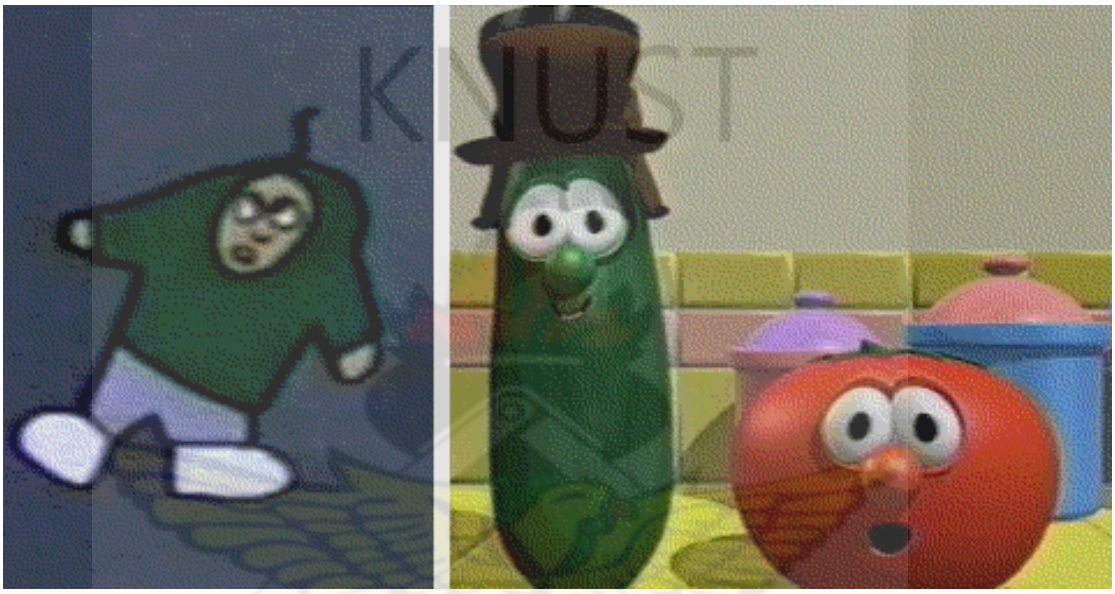

Plate 5: The image on the left is not an appealing design but the characters on right are.

One thing is important for posing a character; the situation where both arms and feet are in one position should be avoided. There should be variations in both the body parts and the facial expressions as well.

2.3 THE TECHNIQUES

Several techniques have been used in the production of animation. Anonymous (2005) states that there are four basic techniques used in animation. These are Drawn Animation, Cut-out animation, Model animation or stop motion animation and

Computer animation or computer generated imagery (CGI). Many artist and colleges continually search for more techniques of realizing animation.

Jean (2006) ascertains that there are a wide variety of techniques for recreating movement on film and it can be hard to recognize them all. Some, like cel or puppet animation, are quite common; other techniques, such as etching on film or the Alexeïeff-Parker pinscreen process, are more rarely seen. In a quest for originality and out of a desire to create an aesthetic form that matches their content, animators are constantly innovating. That's why traditional techniques have evolved over the years, been adapted or even combined.

Consequently, it appears there are so many techniques employed to achieve movement on screens. To simplify the diverse techniques used, it is imperative that the techniques are classified into four major groups. Apparently, there is the Traditional or Cel Animation Technique, Stop Motion Technique, Computer Animation and Experimental Animation Techniques.

2.3.1 Traditional or Cel Animation

Amongst The Traditional or Cel Techniques are Full animation, Limited animation and Rotoscoping.

2.3.2 Full Animation and Limited Animation

When high-quality traditionally animated films, which regularly use detailed drawings and plausible movement are made generally, they are said to be Full Animation. Most of Walt Disney productions are Full animations. Contrary, Limited animation involves the use of less detailed and/or more stylized drawings and methods of movement.

2.3.3 Rotoscoping

Rotoscoping is a technique, patented by Max Fleischer in 1917, where animators trace live-action movement, frame by frame. The source film can be directly copied from actors' outlines into animated drawings. “The Lord of the Rings” (US, 1978), used this technique as a basis and inspiration for character animation. Many more Disney films have also used this technique in a stylized and expressive manner, as in “Waking Life” (US, 2001). Plate 6 shows Gollum, a character from “The Lord Of The Rings.

Plate 6: Gollum, a character from “The Lord Of The Rings”.

2.3.4 Stop Motion Animation

Stop motion as an example of one of several techniques of animation has been interpreted in so many ways. Delahoyde (2007) asserts that this film technique (also known as stop-action photography) involves the slight manipulation of inanimate objects or models between successive photographs of a scene proceeding frame by frame. In other words, Stop Motion animation is used to describe animation created by physically manipulating real-world objects and photographing them one frame of film at a time to create the illusion of movement. There are many different types of stop-motion animation, usually named after the type of media used to create the animation (Taylor, 1996).

Contrarily, Anonymous (2005) asserts that this involves the filming of puppets or any form of three-dimensional models. The materials used could include plasticine, clay or wire - in fact anything that can be bent or formed into another shape. The puppets are positioned and filmed before being moved ever so slightly and filmed again. These shots are put together as a piece of film and will give the impression of the models moving.

Indeed, there are several types of stop motion techniques available. Most at times, they are named after the media that it was used. Some examples are Clay Animation, Cutout Animation, Graphic Animation, Model Animation, Object Animation, Pixilation, and Puppet Animation.

2.3.5 Clay Animation

Clay animation also known as Claymation has its principle material from Clay or plasticine. In that, the characters in the film are entirely sculptured out of clay. Taylor (1996) records “The Gumby Show” (US, 1957-1967) “Morph shorts” (UK, 1977-2000), “Wallace and Gormit” shorts (UK, 1989-1995), Jan Švankmajer's “Dimensions of Dialogue” (Czechoslovakia, 1982), “The Amazing Mr. Bickford” (US 1987), and “The Trap Door”(UK 1984). Plate 7 shows Wallace and Gormit in a posing for the cameras.

Plate 7: Wallace and Gormit made of plasticine.

2.3.6 Cutout Animation

When a stop motion is made by moving 2-dimensional pieces of material such as paper or cloth, generally it is called cutout animation. Examples include “Terry Gilliam's” animated sequences from “Monty Python's Flying Circus” (UK, 1969-1974); “La

Planète sauvage" (Fantastic Planet) (France/Czechoslovakia, 1973); "Skazka skazok" (Tale of Tales) (Russia, 1979) (Taylor, 1996).

2.3.7 Graphic Animation

With Graphic Animation, non-drawn visual materials including photographs, scraps from magazines, newspapers and clippings are the major materials involved. The graphics are either worked on frame-by-frame or the stop motion camera is rather moved to create on screen action.

2.3.8 Model Animation

Model animation is created to interact with and exist as a part of a live-action world. Intercutting, matte effects, and split screens are often employed to blend stop-motion characters or objects with live actors and settings example," King Kong" (1933 film)

2.3.9 Object Animation

The use of regular inanimate objects is object animation. One example of object animation is the brickfilm, which incorporates the use of plastic toy construction of blocks such as Legos (Taylor, 1996).

2.3.10 Pixilation

Taylor (1996) asserts that Pixilation involves the use of live humans as stop motion characters. This allows for a number of surreal effects, including disappearances and reappearances, allowing people to appear to slide across the ground, and other such effects. Examples of pixilation include Norman McLaren's "Neighbours*"* (Canada

1952). Norman McLaren here employs the principles normally used to put drawings or puppets into motion to animate live actors. The story is a parable about two people who come to blows over the possession of a flower. It is a film without words. A scene from this movie is shown in Plate 8.

Plate 8: A scene from "Neighbours".

2.3.11 Puppet Animation

This type of stop-motion typically employs stop-motion puppet figures that interact with each other in a constructed environment, in contrast to the real-world interaction in model animation. The puppets usually have an armature inside of them to keep them still and steady as well as constraining them to move at particular joints. Examples include "Le Roman d Renard*"* (The Tale of the Fox) (France, 1937), the films of Jiří Trnka, The Nightmare Before Christmas" (US, 1993), and the TV series Robot Chicken (US, 2005-present). Shown in Plate 9

Puppetoon, created using techniques developed by George Pál, are puppet-animated films which typically use a different version of a puppet for different frames, rather than simply manipulating one existing puppet.

Plate 9: A scene from "Robot Chicken"

2.3.12 Computer Animation

With the introduction of computers, animation took on a whole new meaning. Many feature films of today had animation incorporated into them for special effects. Anonymous (1999) Digital models are generated from the computer and are subsequently manipulated by an animator. The process is generally referred to as rigging. Other techniques could be applied though. This may involve mathematical functions (ex. gravity, particle simulations), simulated fur or hair, fire effects and water and the use of motion capture. Interestingly, many 3D animations are in recent times

commonly used as special effects for movies. Plate 10 shows a computer generated dinosaur.

Plate 10: A computer-generated dinosaur from the "Jurassic Park Movie".

Obviously, computer animation is very popular in recent times. If you own a computer, you could learn how to animate even on your own.

However, Wiley (2007) states that with 3D techniques, the animator constructs a virtual world in which characters and objects move and interact. Using a virtual 3D world to generate images for an animation involves three steps: modeling, animating, and rendering. Briefly stated, modeling deals with the task of setting up the elements in a scene and describing each of those elements, while rendering deals with the process of converting the descriptions of objects and their motions into images. Techniques for modeling and rendering are, for the most part, independent of their role in the animation

process. There are, however, some modifications that must be made to the modeling or rendering procedures if they are to be used for animation.

San (1987), recounts that early research in computer animation developed 2D animation techniques based on traditional animation yet, Wiley (2007), ascertains that the most basic computer animation tools assist the process of hand animation by automatically interpolating between the key frames of images or models. Animation tools have also been developed to put together or composite multiple layers of an animated scene in much the same way that layers of cels are used in traditional animation. Other, more powerful, techniques make use of computer graphics algorithms that render the images from geometric descriptions of the scene. These techniques change the task from drawing sequences of images by hand to using computer tools effectively to specify how the images should change over time.

Moreover, the basis of computer animation is algorithms developed by academic researchers. These are used to develop software routines that handle the complex calculations needed to work out the precise colour of each pixel in each of the finished frames; the process demands exceptionally powerful hardware with massive storage capacity. For the animator, an image begins as an on-screen collection of lines that look much like a wire frame. There are a variety of techniques the animator can use to develop 3-D objects - they can be extruded from a cross section, or 'swept', which is the on-screen equivalent of turning a cross-section on a lathe to produce an evenly curved surface. Less symmetrical objects may be defined by a series of Bézier curves. Helicon

(2007) Examples: “The Incredibles” (Plate 11), “Shrek” (Plate 10) and “Finding Nemo”

There is also CACAni - Computer Assisted Cel Animation, which is more of 2D.

Plate 11: “The Incredibles”.

Plate 12: A scene from “Shrek”

2.3.13 Cacani/CACAni

Wikimedia Foundations (2008), states that Cacani, abbreviation for "Computer Assisted Cel Animation", is a 2D animation system that automatically generates in-between frames from key frames. Furthermore, NTU CAG (2007) explains that With CACANI, animators need only to draw the main key frames. This means that if the animator creates two or more key frames, the system will automatically generate as many in-between frames as necessary, creating a smooth and realistic sequence. IEEE Computer Society (2007) ascertains that Dr Hock Soon Seah is the inventor and principal investigator of CACAni and has led the Computational Arts Group in Singapore Nanyang Technological University to numerous successful research projects and industrial collaborations.

2.3.14 Experimental Animation Techniques

Techniques such as Drawn on film animation, Paint-on-glass animation, Pinscreen animation and Sand animation are referred to as Experimental. When an animation is made by Drawn on film technique, the footage is produced by creating the images directly on film stock. On the other hand, the technique for making animated films by manipulating slow drying oil paints on sheets of glass is Paint-on-glass.

Pinscreen makes use of a screen filled with movable pins, which can be moved in or out by pressing an object onto the screen. The screen is lit from the side so that the pins cast shadows. The technique has been used to create animated films with a range of textural

effects difficult to achieve with traditional cel animation but sand is moved around on a back lighted or front lighted piece of glass to create each frame for an animated film.

2.3.15 Other Techniques

There are other techniques which include character animation, chuckimation, multi-sketching and special effects animation.

2.4 THE KEY TERMS OF ANIMATION

It is possible to find three key terms in the development of any animation project. These are The Script, Shooting and Editing

2.4.1 The Script

The most important stage after developing a particular idea to animate is to put it to writing. Shaw (2004) asserts that the first stage in developing your idea is to write a script and then work out a treatment. In this context, the idea that is put into writing becomes the story line out of which the animation is woven around. The treatment however becomes the general look of the film. It includes character design, sound design and set design. In literature, the treatment settles for the plot. No amount of set dressing and character design will make up for a weak plot (Shaw, 2004). Generally, a good plot makes a good animation.

2.4.2 Shooting

The basic duty to perform before shooting is to visualize. In practical terms, visualization is the interaction of two types of activities: immediacy and reflection (Katz,

1991). Immediacy in this context refers to creating the content of the shot and the order that they will appear in the film. On the other hand, reflection refers to making the idea in a tangible medium before shooting. Though visualization could be achieved through the script it is better when it is drawn into story boards so that it shows how the scenes will look like on paper

Another important step in shooting a film is to plan the camera angles. The camera angle determines what to show and when to show it. It is however to important to realize that each shot is made up of several elements hence, the need for a good composition.

Typical camera practice states that you shouldn't have less than 30º between two consecutive shots of the same action (Shaw, 2004). Therefore, it is conventional to switch the camera angle sufficiently in case there is a change of shot. Usually, the motivation for a switch in the camera angle is movement. For example, when a character looks to the left, the audience would like to see why the character turned left so the camera angle should then change towards the left.

In shooting a film, continuity plays a major role in achieving a good film. This is achieved when one shot flows into the other without jumping. If the characters are seen leaving left of stage in one shot and entering the shot, it is important that they are walking in the same direction for continuity, so they would enter to the right of the stage.

2.4.3 Editing

Editing is important right from the storyboard to when the film is finally shot. It involves a review of the major activities to cut out unwanted parts. It may also involve the insertion and the arrangement of sound.

2.5 THE WORLDVIEW OF SCULPTURE

The art of sculpture confronts us with a great history, as far back as the pre-historic era, sculpture did exist. Arguably, it is one of the oldest forms of art. Stockstad (2002) states that sculpture date from as early as 32,000 BCE. Today, the art has evolved and has become more exciting. One of the reasons should be because, there are varied materials, techniques and concepts which did not exist before that are employed now. Currently, a sculpture may consist of a collection of objects or material that may not have been altered but are instead arranged in a meaningful way (Yap, 2007). On the contrary, the earliest known works of sculpture is small figures, or figurines, of people and animals (Stockstad, 2002).

Sculpture at present involves more than the physical or actual sculpture. Virtual or digital sculpture has become a new-media. Levoy (2006) states that recent improvements in laser rangefinder technology, together with algorithms developed at Stanford for combining multiple range and color images, allow us to reliably and accurately digitize the external shape and surface characteristics of many physical objects. In that, a three-dimensional object and for that matter, a sculpture could be generated from a computer by means of algorithms, 3D scanning, and be produced onto a display screen through stereographs or holograms.

2.5.1 Virtual Sculpture

Most at times, sculptures are physical or actual. Yap (2007) attests that because sculpture is three-dimensional, we tend to experience its physicality before its other qualities. Its size, shape, mass and sense of movement appeals to our senses of sight and touch and demand that we consider ourselves in relation to it. However, in recent times, virtual sculpture has come to the lime light in so many forms including film and animation. Interestingly, both virtual and physical sculptures are valid and mutually supportive media for any sculptor since each possesses distinct advantages while simultaneously defined by distinct limitations (R.M. Smith, personal communication, October 11, 2007).

Virtual sculptures that have been aided by computers are referred to as digital sculpture. Digital sculpture is made as a result of rapid prototyping; a technique that "prints out" three-dimensional designed models (The Columbia Encyclopedia, 2004). Sometimes, some actual sculptures are captured with a motion picture camera and thus create a video sculpture which is also a form of virtual sculpture.

Virtual sculpture is visually three-dimensional once it has been projected by holography or stereoscopic projection into a space. The same data can be used to run computer numerical control (CNC) or rapid prototyping (RP) systems to manufacture the virtual object into a physical object so we know that the 3D data is absolutely correct.

Research technology even allow for the sensation of touch to complete the experience with a Virtual Sculpture so it completes the experience like any sculpture. Human perception is the primary determining factor as to what is Sculpture so if there is nothing

to delineate this Eye/Hand experience then it is clearly Sculpture (R.M. Smith, personal communication, October 12, 2007).

2.5.2 Some Elements of Virtual Sculpture

Elements such as time and movements are prominent in the spheres of virtual sculpture.

2.5.3 Time

When the element time is considered, then another dimension of art is being tackled here. The fourth dimension comes to play when time is considered. Virtual sculpture is however four dimensional since it includes time as a determining factor (M.S. Robert, personal communication, October, 2007). In the field of modern art, many artists and for that matter sculptors have sought to use time in so many ways. Surely, it could not be only virtual sculpture but also in actual sculpture. George (1986) links the developments in modern physics with the perception of movement in sculpture. Particularly by tracing implications of Einstein's paper on the Theory of Special Relativity, the sculptor shows changes in a variety of twentieth-century art forms and in his own recent work. His current roadway installations, composed of elements arranged in a series and covered with reflective sheeting, make use of the dimension of time. Such installations depend on movement by viewers and changes in light in order to be perceived.

The element "Time" transcends the boarders of sculpture to all forms of art including photography. The photography of JoAnn Verburg is discussed to reveal the role of time in photography. Verburg's works are set up to create narrative sequences in which one

thing leads to another. Her portraits, still lifes and landscapes generate a state of prolonged experience (Anonymous 2007).

Obviously, animation could not do away with time as an element. Shaw (2004) states that although you may start out timing everything with a stop watch, you will begin to develop what in the end becomes an instinctive feel for timing. Because animation is a created process of actions in time, you are the creator; you have to calculate how things work in fractions of a second. If something is falling you have to look at the object and assess, by its nature, how fast it will fall and what impact it will be. If someone is throwing something to someone else: how strong is that person, how heavy is the thing they are throwing: how far back will they need to lean to give the impression of the force they are putting into the throw? In this case, time determines every action in stop motion hence in virtual sculpture.

2.5.4 Movement

Movement as an element of virtual sculpture is so evident especially when time is a determining factor. Albeit movement has been explored in physical or actual sculpture it has been somewhat rigid or automatic. I agree that the primary advantage of Virtual Sculpture is that it is capable of full life-like movement that is far more fluid than any previous Kinetic Art (M.S. Robert, personal communication, October, 2007). Sculptures that explore movement are generally referred to as Kinetic Sculpture or Mobile Sculpture.

The roots of kinetic sculpture and constructivism reside, famously, of course, in the works of Naum Gabo and László Moholy-Nagy, and extend to those of Alexander Calder, Yves Tinguely and Bruce Nauman (Collins, 2007). In 1928, Calder made a wire sculpture "fishbowl with crack", and it has been described as a hand operated mobiles. This is because the hand was required to stimulate the movement as it could not move on its own. However, this same technique was useful in his "Circus" – a miniature circus that was celebrated in a film entitled "Calder's Circus". The film was made of tiny wire performers that were ingeniously articulated to walk tightropes, dance, lift weights and engage in acrobatics in the ring earlier on in Paris, 1927. This film exudes the great personal charm of Calder himself, moving and working the tiny players like a ringmaster, while his wife winds up the gramophone in the background. "The Circus" is now housed at the Whitney Museum in New York. Plate 13 shows details of the installation.

Plate 13: Alexander Calder, Calder's Circus, 1926-31, detail of installation.

Arnason (1986) recounts that calder's first group of hand and motor "mobiles" was exhibited in 1932 at the Galerie Vignon, where they were so christened by Marcel

Duchamp. When Arp heard the name "mobile," he asked, "what were those things you did last year – stabiles?" thus was born the word which technically might apply to any sculpture which does not move but which has become specifically associated with Calder.

Though movement appears to be created from different grounds they however, seem to be a connection between the types of movements that are produced from both actual kinetic sculpture and virtual sculpture or film despite their distinct properties and differences.

Halas and Manvell (1970) assert that kinetic art utilizes gravity, electricity and imagination. The stage utilizes human motion in the forms of ballet and mime. Film attempts to utilize them all. But both stage and film are primarily concerned with literary drama and little consideration is given to the use of motion mechanics for its own sake. It is left with kinetic art to interpret movement creatively, and to film animation to do the same in the optical field. Both are the purest form of expression to convey motion mechanics, and in this area they are closely related.

The basic difference between the activity of actual kinetic art and film or animation is that whilst actual kinetic art produces real movement through animating actual objects and constructions, film produces movements through the mechanism of cinematography and projections including photography, processing and editing of which the computer is largely exploited.

Apart from the traditional exponents of kinetic sculpture, many artists have desired to represent motion in so many ways including artificial means and indeed kinetics is evolving into a more interesting form of art. Mangold's newest series of works, however, represents a radical departure from his literally kinetic "Anemotive" studies and a bold step into the wide territory of abstract Minimalism. Entitled "PTTSAAES" (an acronym for "Point Traveling Through Space At An Erratic Speed") these small and large-scale works of thin, monochrome lengths of steel tubing bent into angular, seemingly random configurations of varying lengths don't actually move, but rather, imply motion. Like speedily drawn lines miraculously manifested in space, or bolts of frozen lightning in red, blue and pewter, the various evocations of a "PTTSAAES" compel our eye to travel along the puzzle of "lines" described. The suggested motion, and its relative "speed," is created by our "mind's eye" which makes for a palpable "virtual kinesis" within the haphazard system (Collins, 2007). Plate 14 is an example of Robert Mangold's PTTSAAES.

Plate 14: Robert Mangold, PTTSAAES

The motion-picture camera has been a sure tool to represent three dimensions through the medium of film. Interestingly, Halas and Manvell (1970) recounts that even before the cinema had come into existence, advanced forms of magic-lantern projection had

developed elementary forms of motion which anticipated animation. Mention could be made of "Marey's flow" of graphic images. More significantly, the sculptor Laszlo Moholy-Nagy created the celebrated mobile abstract sequence for the film made from H.G. Wells's script, "Things to Come" later on in 1935.

Since the birth of motion in art, whether through frame-by-frame progression, camera mobility, or the manipulation of light effects, it has been the main concerns of animation to produce very smooth movement with a lot of fluidity. Through animation the principles of optics within an increasing variety of screen ratios and formats are able to stimulate the eye to perceive life-like movements.

However, the variables of sculpture as the wellspring for this production have little to do with very smooth movements. Though smooth movements seem to be the hallmark of a good animation, for the purposes of the argument in context and the objectives of this work, the emphasis of the project subdues achieving the smoothest of movements. But definitely, it should present very interesting contributions to sculpture even as it is a typical means of exploring sculpture virtually; though it seems virtually not explored to its apogee in our part of the world - Ghana.

CHAPTER THREE

METHODOLOGY

MATERIALS AND PROCESSES

3.1 Tools, Materials and Equipment

3.1.1 Tools

The tools and materials used for this work are as follows;

a. ***Boxwood Modelling tools***

Boxwood modeling tools were used because of their flexibility. They are made in wood or plastic. With the aid of these tools, the plasticine was added in bits to complete the models.

b. ***Spatulas***

Spatulas are made of metal. They are usually narrow with pointed edges. They were employed in this work to provide the necessary details needed for the modelling of the models. Their pointed edges were needed for sharp and intricate forms.

c. ***Rolling Board***

A flat board made of wood and used as the surface on which the clay was rolled into slabs to make the trees and the mud houses. The rolling board was used because it is the most appropriate tool on which a slab can be made.

d. ***Rolling Pin***

This is a cylindrical shaped wood with a small handle at either ends. Rolling pin was used to roll out and flatten the clay on the rolling board. Rolling pin and rolling board complement each other.

e. ***A pair of Calipers***

This pair of tool is made of metal. It was used to take measurement in the process of modelling. The sizes of each sculpture were taken into consideration. A pair of calipers gives room for flexibility when taking measurements.

f. ***A pair Pliers***

This is a hand tool with two hinged arms ending in jaws that are closed by hard pressure to grip something. This was used because it was practical to bend the flexible wire to make the armature.

3.1.2 Materials

The materials used to make this work are as follows;

a. ***Plasticine***

This is also called clay dough. It has the characteristic of clay. However it is prepared by a reaction which softens plastic into a modelling material. The brand used for this is plastilina from Jovi. It was used for the puppets because clay puppets appear to be rigid. Plasticine is most appropriate because it barely hardens-up. Its strength of plasticity could not be easily overlooked.

b. ***Clay***

Clay is earth or soil that is plastic and tenacious when moist and that becomes permanently hard when fired. Clay is of widespread importance in industry, clay consists of a group of hydrous alumino-silicate materials formed by the weathering of feldspathetic rock such as granite. Clay is plastic but however varies. All being more or less malleable and capable of being modeled into any form moistened with water. Clay was used for the tress and mud houses because of its strengths and solidity.

g. ***Latex Foam***

This is a material containing bubbles or other materials filled with many small bubbles to make it soft or light. The foam was used to model the figures because it allows for easy manipulation.

h. ***Polythene Sheet***

This was used because it was important to keep the clay moist and to control the drying process of the clay. If the drying process of the clay is not controlled, it will give room for clay defects like wobbling and cracks.

i. ***Adhesives***

These were used to stick things together. Examples were Polyvinyl Acetate (PVA) glue and super Adisovo -Adhesive (Shoe Maker's Glue). The adhesives were chosen for convenience sake.

3.1.3 Equipments

The machines which were used for this work are as follows;

a. ***DV Camcorder***

This is a video camera that records pictures and sound and that can be carried around. A digital video camera is designed for continuous frame storage. It was plugged straight into the computer using a firewire connection. The choice of the DV camcorder was largely influenced by its ability to produce quality images.

b. ***Computer***

A computer is a machine that performs tasks such as calculations or electronic communication under the control of a set of instructions called programmes. Programmes usually reside within the computer and are retrieved and processed by computer electronics. The editing and the sound effects of this animation work solely depended on this electronic medium because the computer provided many opportunities for exploration via its inbuilt programmes.

c. ***DVD and DVD-ROM***

Digital Versatile Disc (DVD) is an optical storage device that looks the same as a compact disc. It was used for this production because it is able to hold about fifteen (15) times as much information and transfer it to the computer about twenty (20) times faster than a CD-ROM. The DVD-ROM stores computer in the require format.

d. ***Fire Wire/Cable***

Fire wire was used because it is a very fast external bus computer connection. The cable was used to transfer images from the DV camera to the computer.

e. ***Tripod***

This is a 3-legged support or stand with three legs that are usually collapsible, used for supporting a camera when shooting. It was used because it is able to reduce camera shakes and relieve the burden of carrying the camera throughout the duration of shooting.

f. ***Halogen Lamps***

These provided brilliant illumination by using electric current to heat a filament of tungsten metal until it glowed. Three of them were used because, they allow for excellent lighting effect required by this production.

3.2 THE PRODUCTION (ANANSE IN LOVE)

3.2.1 Developing The Story

As elaborate as the whole project is, it was also very important to keep the story as simple as possible. In developing the story, three processes were involved. These are The concept, The script and The Treatment.

The concept was developed by writing the script but once the script was ready, the treatment was worked out considering the design of the characters and the audio. A great

sense of visualization was required to make the plot. The script needed to be clear, focused and entertaining. The treatment put the script to a visual format.

3.2.2 The Concept

The concept was to develop a story around Kweku Ananse, the famous character in Ghanaian folklore. Ananse can be depicted with varied personalities. Many a time, Ananse is seen as stupid, cunning, cheating, wise, foolish, comical or witty. In this story, Ananse was the hero.

3.2.3 The Story: Ananse in love

Many years ago, Kweku Ananse and Katawire, Lion, were courting Ɔkɔnore Yaa, a very beautiful princess. People wondered why Ananse would compete with Lion for Ɔkɔnore Yaa because Ananse was not strong and funny but lion was highly respected and feared, strong and mighty.

Ɔkɔnore Yaa told them that she would only marry the strongest, the wisest and the smartest. Ananse claimed he was the best by boasting around that he would make Lion his horse for everyone to know that he was the best. This made Lion very angry at Ananse.

One day, Lion met Ananse along the road- Ananse was carrying a walking stick and limping along as if he was in great pain. When Lion saw him he roared; ‘‘I thought you said that you were going to make me your horse. Why don’t you try it?’’

Ananse denied it and said it was only a joke. ‘‘How would someone as weak as I am compete with strong and mighty you? “As a matter of fact, I was on my way to tell Ɔkɔnore Yaa that you are the best man but I am weak so I can’t go now. I wonder if you could carry me until I regain my strength.’’

Lion was pleased at Ananse so he carried Ananse on his back because Ananse was going to tell Ɔkɔnore Yaa that he Lion was the best. But Ananse did not get down but rather called Ɔkɔnore to see him on lion’s back. Lion was very ashamed so he run to the bush and never came home again but Ananse stayed in Ɔkɔnore’s house until he had dinner with her. From that day, Ananse have lived in the rafters of the house, afraid that Lion will come back to get him.

3.2.4 The Shooting Script

The shooting scripts for this production have been tabulated in tables 1 to table 4. Each table contains the prospective shot size, the video and the audio tracks. The shooting script has been designed in accordance to the storyline.

3.2.4.1 Scene 1 (The intercourse of Katawire - the Lion and Ɔkɔnore Yaa)

Shot Size	Video	Audio
1. LS.	Lion wooing and cooing Ɔkɔnore Yaa	I want you, Ɔkɔnore Yaa to be my wife
2. MS.	Ɔkɔnore Yaa describing her dream man	You must be the strongest, smartest, the bravest and wisest to be my husband.
3. CU.	Lion showing signs of optimism	I am the best, everyone knows it.
4. CU.	Ɔkɔnore Yaa asking lion to leave	Prove it if you are
5. LS.	Lion walking away provoked	Ɔkɔnore Yaa laughing. Lion growling

Table 1: Shooting Script of Scene 1

The role of Katawire, a pompous, confident and boastful personality was expected to be projected better in the above shooting script. On the other hand, Ɔkɔnore's averse attitude was also to be seen.

3.2.4.2 Scene 2. (The intercourse of Ananse and Ɔkɔnore Yaa)

Shot Size	Video	Audio
1. LS.	Ananse wooing and cooing Ɔkɔnore Yaa	Good evening my princess. What are you doing with all this beauty? Let me be your husband and you, my wife
2. MS.	Ɔkɔnore Yaa telling Ananse the calibre of man she likes as a husband	You must be the strongest, smartest, the bravest and wisest to be my husband.
3. CU.	Ananse boasting	Ananse chuckles! Who? Is it wofa lion? I will ride on his back like my horse for everyone to see. He is no contender.
4. CU.	Ɔkɔnore Yaa asking Ananse to leave	Prove it if you are really the best
5. LS.	Ananse dancing away in confidence	Sound track

Table 2: Shooting Script of Scene 2

Scene 2 was envisaged to depict the intercourse of Ananse and Ɔkɔnore Yaa because in this scene, Ananse's swagger and jiggery-pokery was awesomely planned. Yet, Ɔkɔnore's averse attitude is seen.

3.2.4.3 Scene 3. (An ambush and a ploy)

Shot Size	Video	Audio
1. LS.	Ananse limping off with a walking stick as if he is in pain.	Ananse whistles sparingly, birds chirp, twitter and squawk, footsteps, gust of wind
2. MS.	Lion trapping Ananse along the road	I thought you said you were going to make me your horse. Here I am, why don't you try it.
3. CU.	Ananse tricking lion	[In a weak and tired voice] Oh, how can I? Disaster! It's a lie, As a matter of fact; I was on my way to tell Ɔkɔnore Yaa you are the best man for her.
4. CU.	Ananse is sitting under a big tree	Lion, we all know you are the strongest. Could you carry me for a while until I regain my strength?
5. LS.	Ananse is riding on the back of lion.	Please speed up so that you could have dinner with Ɔkɔnore Yaa.

Table 3: Shooting Script of Scene 3

Scene 3 must depict an ambush and a ploy. Whilst Lion lays an ambush, Ananse's skulduggery thrives. Lion reckons he's revered by everyone so he underrated puny looking Ananse and Ananse outfoxed him.

3.2.4.4 Scene 4. (The bolt from the blue)

Shot Size	Video	Audio
1. LS.	People coming to see Ananse on lion	Lion roars, Ananse giggles, people mumble
2. MS.	Ɔkɔnore Yaa watching on in amazement	Ɔkɔnore Yaa shrieks, Ananse laughs.
3. CU.	lion bowing in shame	People laugh
	Lion running to the bush	People boo and taunt
5. LS.	Ananse having dinner with Ɔkɔnore Yaa	Brave and wise Ananse, I am proud of you. Will you marry me?

Table 4: Shooting Script of Scene 4

Scene 4 was intended to be the climax. That is why Katawire is shameful but ananse and Ɔkɔnore are in ecstatic mood.

3.2.5 The Storyboard

In the storyboard, series of static images were made to interpret the script visually. The storyboard was rendered in ball pen on paper before it was scanned digitally. The images in the storyboard was chosen because of the plot of the story. For instance, Ananse and Ɔkɔnore have been personified to lay emphasis on their various roles but the Lion was not. This was to show how obtuse Lion is. The figures labelled 1 to 8 show the storyboard.

Figure 1: The intercourse between the Lion and Ɔkɔnore

Shot size: LS.
Time: 4 sec
Video: Lion wooing and cooing Ɔkɔnore Yaa

Figure 2: The intercourse between Ananse and Ɔkɔnore

Shot size: LS.
Time: 4 sec
Video: Ananse wooing and cooing Ɔkɔnore Yaa

Figure 3: Ananse whistles sparingly as he walks away.

Shot size: LS.
Time: 3 sec
Video: Ananse limping off with a walking stick as if he is in pain.

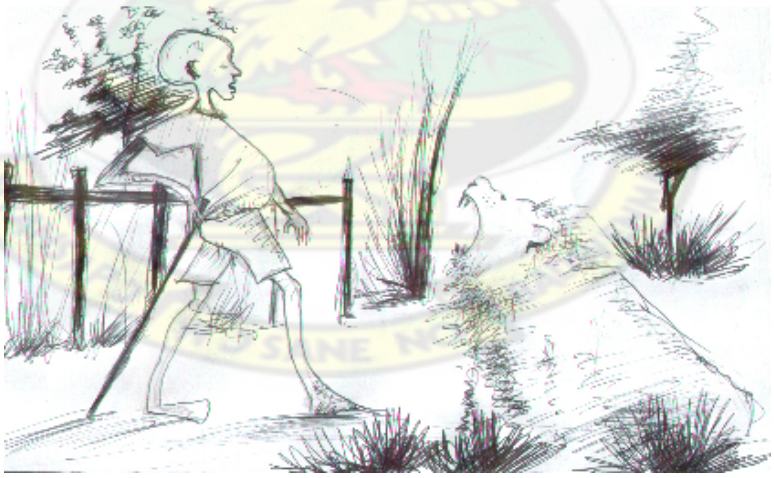

Figure 4: Ananse gripped in fear whilst the lion roars

Shot size: LS.
Time: 5 seconds
Video: Lion trapping Ananse along the road.

Figure 5: Ananse rides on the Lion.

Shot size: LS.
Time: 8 seconds
Video: Ananse is riding on the back of lion.

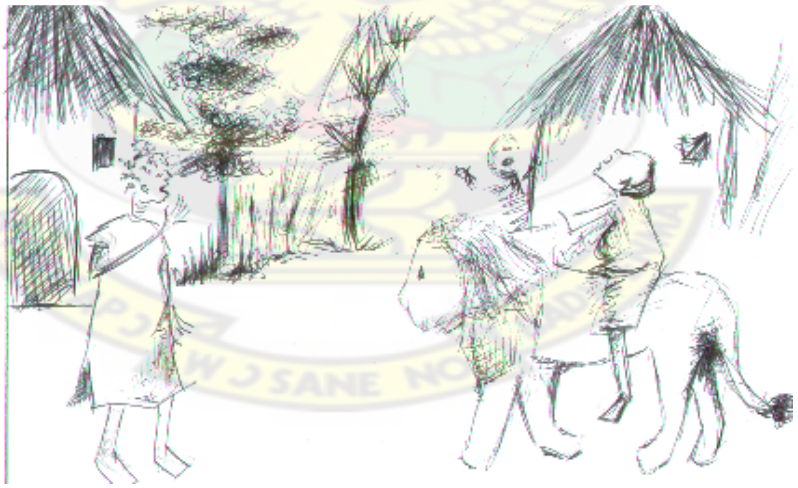

Figure 6: A bolt from the blue.

Shot size: LS.
Time: 2 seconds
Video: Ɔkɔnore Yaa watching on in amazement

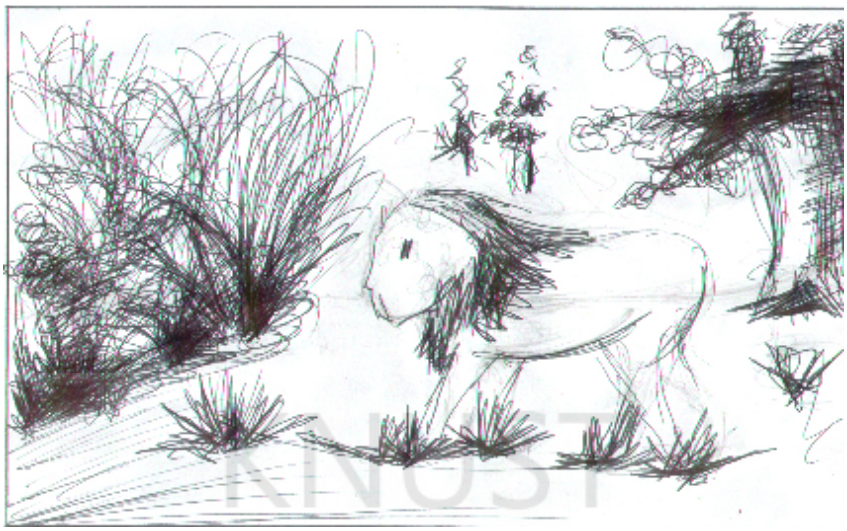

Figure 7: The dishonourable Lion.

Shot size: LS.
Time: 6 seconds
Video : Lion running to the bush

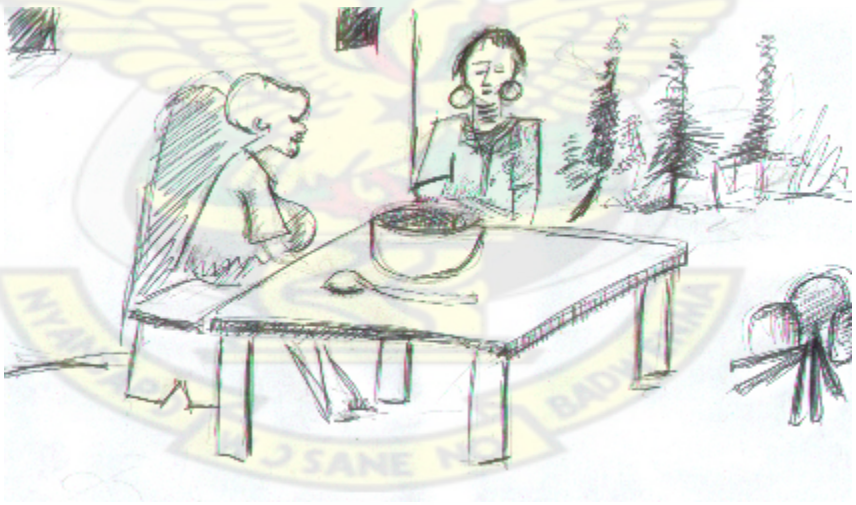

Figure 8: The climax.

Shot size: LS.
Time: 3 seconds
Video: Ananse having dinner with Ɔkɔnore Yaa

3.2.6 MISE EN SCÈNE

Mise-en-scène refers to everything that appears in a movie. Usually, what is put into a scene is of prime importance to every production therefore; the mise-en-scène of this production was concerned with everything that should appear in the film frame. It included: the behaviour of the models, the setting, the costume and the lighting of.

3.2.6.1 The Model Making Process

3.2.6.1.1 Character Design

There were no constrains in ideas by technical considerations but the concerns were the relation amongst characters in terms of size and style. First, the ideas were represented on paper before materials and structure came in. The following questions came into consideration, how much does it need to bend? What is a reasonable scale to work with? How subtle will the movement need to be? How robust does it need to be? How will it stay to the floor for each shot? And do all parts need to move? As and when answers were provided, each character design was made.

For instance, Ananse and the Lion would make more movements so they had to be robust. Ɔkɔnore Yaa and the crowed would make few movement so their design was a bit restraint and was predominantly made with latex foam.

3.2.6.1.2 Armatures: The Insides

An armature was required to control the shape and movement of each model. Two types of armatures were made for the characters considering each design. They are,

i. Wire armature and

ii. Mechanical armature

The wire armatures were made of 2.5mm thickness aluminium wire, copper tubing and epoxy steel. Two strands of wire were wounded together with a hand drill to make them strong. For firm and well located joints copper tubs were fashioned by means of annealing and drawing them manually through a draw plate for the various joints. Aluminium sheets scraps were then cut and fixed with epoxy steel to form the feet. Plate 15 shows a picture of the working table when the wire armatures were made.

Plate 15: On the working table when the armatures were made.

On the other hand, mechanical armatures were made for the other figures in accordance with their design. These armatures were rendered with three-quarter inch iron rods to make them fit for their various roles. The process was dominated by drilling and riveting.

3.2.6.1. 3 Sculpting: The Body

Two methods of making sculpture were combined to create each model. They are, modelling and carving. The modelling was rendered in plasticine whilst the carving was done in snip foam from upholstery foam. The head, hands and the feet of the models were modelled whilst the torsos were carved. The modelling process involved adding the material in bits until the desired forms were achieved but in the prime of carving, the desired forms were realized by snipping foam into shape and gluing on with a contact adhesive. Plate 16 shows how the Lion was carved out from snip foam. Some of the modelling processes have been shown from plates 6 through plate 9.

Plate 16: Working with snip foam.

The eyes of the models were made with white beads or the eyes of a discarded teddy. Plate 17 gives a picture of using beads for the eyes. The beads or teddy eyes were pushed through the plasticine to form the eyes. Plate 18 shows examples of teddy bears whose parts were used for the modelling and plate 19 shows how the parts were removed from them.

Plate 17: A bead was fixed for the eyes.

Though most models did not have hairs, the hair on a discarded toy was useful to the modelling of the Lion in particular along the way. By way of achieving the suitable finishes for the purpose of this project, the modelled parts were painted with acrylic paint with a paint brush in different colours and clothed.

Plate 18: Teddy bear parts were collected for the modelling.

Plate 19: The eyes of a teddy bear were cut for the modelling.

Plate 20: A ball of plasticine formed the head shape.

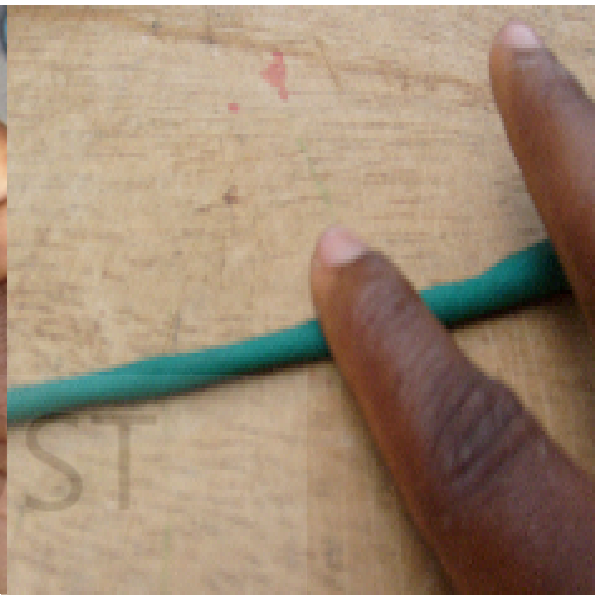

Plate 21: Coiling plasticine.

Plate 22: Forming Ananse's face by piece addition.

Plate 23: Ananse's head shows tool marks.

3.2.6.1.4 Costuming

Apart from the paints on the head, hands and feet, the models were clothed. Clothing the models involved a hunt for fine-textured fabric that would nevertheless be robust in constant handling and still keep the objectives of the project in focus. Consequently, the dresses were made with a fine jersey, wax prints and polyester materials. Plate 24 shows some sewing materials for this production. Before sewing, the measurements of the models were taken into consideration so that the dresses would fit the models just perfect. In most cases, the costume was hand stitched but in some situations, they were glued with a contact adhesive especially when close fit was required. The costumes for Ananse, Ɔkɔnore Yaa and the crowd were mostly hand stitched for convenience sake. A hand stitching process has been shown in plate 25.

Plate 24: Sewing materials for the costumes.

Plate 25: Sewing the costume of the Lion.

3.2.6.2 Design and Building Of Sets

Designing and building of the sets are integral part of the early planning stage. At this stage, how the landscape would look is considered with regards to the camera angles. The composition of the set is varied until a suitable look is arrived at. Though most of this process involves a lot of visualization, it is always advisable to have a miniature set in place for a mock-up to determine which limitations the final set would probably have.

The village setting is not only influenced by the story but also by the mores of a typical Ghanaian village. The unity and togetherness justify the closeness of the buildings. Figure 9 illustrates a proposed landscape for the production.

Figure 9: The village scene.

3.2.6.3 The Base

The base of the set was designed to rest on a study desk to provide a comfortable working height during the animation process. The base was made of chip board and earth (soil). Though many animators use tie-downs and magnets to hold their models firm, once the feet of the models were modelled in plasticene, it was easy for the models to be firmly rooted onto the base because the earth has made the surface roof enough to hold the feet firm. Plate 26 is a picture of how earth was spread over the chip board.

Plate 26: Spreading soil over chip board to form the foreground.

3.2.6.4 Landscaping

Landscape textures were made with sand and PVA glue. The sand was mixed with PVA glue and spread over the base paper. Some parts were painted others were not so that the natural colours may be revealed. Trees and shrubs were made from clay, binding wire, wood chippings and PVA glue were obtained from tree branches. Other forms of greenery and foliage were collected from a flower shop or from natural sources. The stems of the trees were made from clay slabs but the branches were made of binding wires which was also used for the stems of the shrubs. The wood chippings were attached to the binding wire with the PVA glue as an adhesive. Once, the wood chippings were attached to the wire, they were dipped into a green acrylic paint solution to give colour. Plates 27 to plate 29 explain how tree branches and shrubs were made. A fence was created with strips of bamboo branches to complete the landscape. Whilst the

trees and shrubs simply stand on the base, the fence has been affixed onto the base (plate 34) for better stability.

Plate 27: Dipping wire with PVA in wood chippings the modelling.

Plate 28: Shrubs modelled out of wood Chippings.

Plate 29: The shrubs were allowed to dry after the wood chippings were applied.

Plate 30: The clay tree trunk

Plate 31: Fixing the tree branches.

Plate 32: Tools and materials used for the fencing.

Plate 33: Trimming bamboo branches for the fence.

Plate 34: Fixing the fence onto the base.

3.2.6.5 Buildings

Buildings were basically made of clay and thatch because shelters in villages in Ghana are made predominantly out of these materials. Clay slabs were used to form the building from the base to the lantern. The thatch was then mounted over for the roof. With the aid of a paint brush, brown acrylic paint was used to give the buildings a true earth look. Still with the brush, Adinkra symbols were drawn on the outer walls. Plate 35 is a picture of a finished mud house for this production.

Plate 35: Mud house made of clay and thatch.

3.2.6.6 The Backdrop

The backdrop was painted in blue acrylics because most of the scenes occurred in day time. Though the medium is not water colour, the sky effect would best be achieved if there is a lot of water. A little landscape in the background was important to create perspective (Plate 36).

Plate 36: The painted skies for the backdrop.

3.2.6.7 Props

Within the setting, there were some objects performing some specific functions. They are the furniture, the utensils and the traditional cooking tripod. The furniture was made of paper and clay. This is shown in plate 37 below. With the aid of the PVA glue, cut-out paper was put together to form the table. The chairs were made with rectangular clay blocks and clay was pinched to form the utensils. Tree branches were then arranged to form the fire wood. These must be seen because the movie should suggest the existence of life in the community.

Plate 37: Some props Displayed.

3.2.6.8 Make-up

Make-up, like costume is essential for creating character traits and motivating the plot action. Therefore, make-up objects like scarf and ear rings were used.

3.2.6.9 Lighting

Two basic lighting systems were employed in the production. There were key light and fill light designed in three-point lighting with the key light being the strongest of all. The fill lights which were of lower wattages produced less intense illumination which softened or eliminated the shadows that the key light casted. Though natural light was

allowed through the windows and doors, the main source of light was halogen lamps. The picture in plate 38 shows lighting effect. This should be done for consistency in the lighting effects.

Plate 38: Lighting effects

3.2.6.10 Staging

Just like actors on a stage, the behaviour of the models was designed to communicate and to move into spaces with respect to time. Where each model stands or appears is generally planned according to the script. Every movement on stage was made possible by the power of the camera.

3.2.7 THE PERFORMANCE

> The important thing is performance – and that's not to do with the technique of animation – more to do with acting. Things like performance, timing, sense of comedy, feeling for poses and how to communicate – those are the things that apply across all techniques, and the things that make good animators. *Pete Lord, director, Aardman Animations.* Plate 39 is a picture of animating Ananse.

Plate 39: Animating a character means putting yourself in that character.

3.2.7.1 Character Animation

The apparatus required for this task is in the animator. The animator becomes the director and also the actor on stage. Through his hands, a model turns a believable character. However, it is very important to consider the timing, expression, pose, silhouette, lines of action and the choreography. Therefore, many of the actions however exaggerated they are, were acted. Every bit of movement was anticipated to help it read. A little comedy and mime was required to make the performance a bit more humorous. Before any character would move, it needed to be manipulated in a well balanced pose that enable each character to act. Once characters were posed, a line of action was drawn imaginarily to be the pathway of each character. Plate 40 show Rok at animating the Lion.

Plate 40: Rok helping with the animation.

3.2.7.2 Filming

Once the script, storyboard, set built, models made, sound breakdown and animation instructions were ready, the shooting process begun. Three cameras were used to provide three different angles. One camera recorded onto a mini DV, another camera shoot via video whilst the other camera shoot still pictures stored onto a memory stick. Shooting via the video option offered the opportunity to record directly onto the computer. At some point there was a pan of camera from side to side on a fixed tripod and another camera was just to tracking the movement of the model. Occasionally, the camera was zoomed in and out to achieve several types of shots including close shots, long shots and medium shots. Plate 41 is a picture of Ralli helping with the filming of this production.

Plate 41: Ralli helping with the filming.

3.2.7.3 Special Effects

Though much of the special effects were created during the editing certain effects were achieved during the filming. Camera shakes were used to portray a fearful situation whilst just a little tread did the trick for some special movements.

3.2.8 EDITING

The editing process eliminated all unwanted footages by discarding all but the best take and joined all desired shots with the end of one to the beginning of another. Adobe premiere pro offered variety of transitional styles including a fade-out, fade-in, dissolve and a wipe. The basic means that was used to edit this project is the cut. This was made possible by splicing two shots together by means of cement or tape. The mise en scene of this work furnished this work with lots of graphic elements for editing. Most of the shots were linked by graphic match. For instance, the overall composition and movement in shot “A” were picked up in the composition of shot “B”. The duration of each shot was determined during the editing process as there were lots of adjustments to certain shots to control the rhythm. Also, the editing controlled the time of action denoted in the film by manipulating the order, duration and frequency of the story. The editing screen is captured and shown in Plate 42.

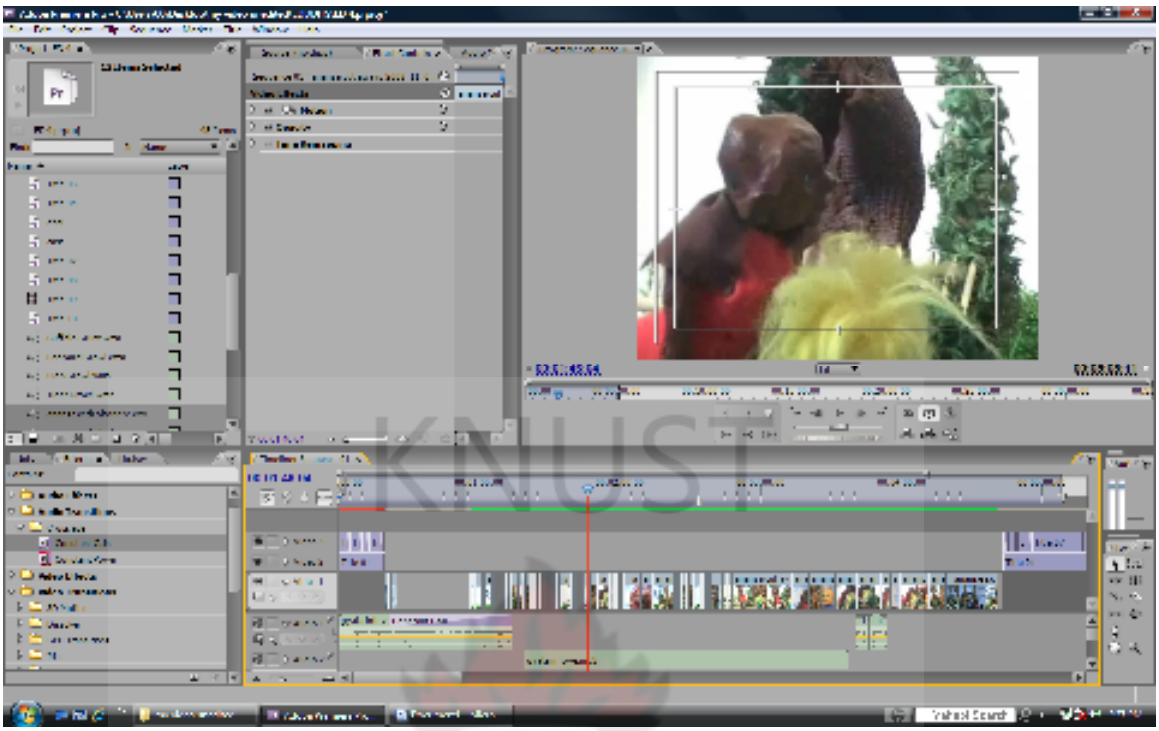

Plate 42: The editing screen of Adobe Pro.

3.2.8.1 Sound

Once the edit was complete, it was time for the soundtrack. Music, the character's voices, and the layers of sound were designed to enhance the mood of the film. Sound textures like the wind, footsteps, leaves rustling, whistles and birdsongs were made to create a world goes with the characters. The dialogue was in mono but layers of sound were mixed together to make the soundtrack. Plate 43 shows the recording of the voice over of Ananse at CECAST, KNUST.

Plate 43: Recording the sound over of Ananse.

3.2.8.2 Credits

This is where people who were on the crew needed to be acknowledged. The type is not too small for big screen but clear enough for the smallest TV. They are made to roll neither too fast nor slow and it could not be longer than the duration of the film. The credits were computed via Adobe Premier pro.

CHAPTER FOUR

ANALYSIS AND DISCUSSION

4.1 ANALYSIS

4.1.1 The Story

The story of this project is generated from a typical Ghanaian folklore. There are four main characters in this story and it has a village setting; the village of Anansekrom - a small and bushy settlement with about three mud houses roofed with thatch. Though Ananse is neither feared nor respected, he still competes with Katawire, the lion, who is revered; they both want Ɔkɔnore Yaa's hand in marriage. In the end, Ananse becomes the hero by relying on his popular tricks. Plate 44 shows hero Ananse dinning with Ɔkɔnore.

Plate 44: Ananse dines with Ɔkɔnore.

4.1.2 Characterization

The main character is Kweku Ananse (spider). Other characters include Katawire - the Lion, Ɔkɔnore Yaa, and two other people. Though Ananse is depicted as a human being, he still represents the spider in the animal kingdom because he is so puny with regard to the status of the Lion in this project. Plate 45 shows puny looking Ananse. On the other hand, Katawire - the Lion, is depicted as a lion. Though he is not so huge in size, his supremacy and strength are evident, even in his gait and strong voice. Ɔkɔnore Yaa is a lovely woman with a ringed neck, a mark of indigenous African beauty, which she identifies herself. The two other characters bear a constant facial expression that portrays the degree of shock that besets them.

Plate 45: Puny looking Ananse during the modelling.

Ananse, who is painted brown in the video, also wears a brown and red costume. He has a big head and a weak body with a big stomach. The little green around his eyes has always given him hope of succeeding. However, the colour of his skin and costume synchronizes with his repressed personality in this project. It is difficult to know which direction or attitude in particular he bears because he disguises himself in the brown, which in effect hides his true nature. This is particularly evident in the way and manner he tricked the lion - even his cunning discourse with Ɔkɔnore speaks volumes about this attitude.

On the other hand, Katawire, the Lion, who is greatly feared and respected, is portrayed as a lion. A golden lion with a green head is affluent and thus, lacks nothing –in fact; there is an aura of respect and pride around him. Plate 46 show a picture of Katawire depicted as a Lion. He has always been confident of succeeding because everyone fears him. He is not particularly bigger than everyone but he is the only one depicted as an animal- a fearful one at that. His status as the king of the jungle is what sets him apart in this project. His influence has nothing to do with neither his size nor his looks. But rather, his presence is heavily felt by the way he is animated. His confident steps and his ability to carry Ananse at his back suggest that he is indeed sturdy.

Plate 46: Katawire – The Lion.

The models have been sculpted traditionally, leaving some residues of tool marks probably to show how expressive actual or physical sculpture could be in the virtual realm of sculpture. The genre of costumes identifies the models in a typical Ghanaian fashion but it also cedes mix-media as an integral medium with which this work has been produced. In the process, it could be concluded that assemblage and construction has been a major technique. Plate 47 shows the plasticine head and the foam body of the Lion.

Plate 47: Fixing plasticine head on a foam body.

4.1.3 Location

The setting of this project is a typical Ghanaian village with mud houses and bushes. In the background, the painted backdrop provides a day - time atmosphere plus a special illusion of depth that takes delight in tricking the eye to perceive a little village far away from the centre of attraction.

The houses have been made in clay and thatch; they are placed close to each other just like what you would usually see in the villages of Ghana. That is natural enough to provide the urge to represent reality in this project.

The organization of space in this locale obviously corresponds to a dual influence of culture and time. This is in connection with the beliefs of the local people who live together, believe in each other and share things in common. The trees, shrubs, grass and the greenery that have been rendered predominantly in clay and wood chippings provide a strong evidence of life in the village. On the base, the earth made of soil lies subtly on top of a chip board giving a feeling of solidity and a genuine context with natural earth and stability. The village scene is shown in plate 48 below.

Plate 48: The village scene.

4.1.4 The Animated Film

Instead of continuously filming the actions in real time, series of images have been shot one frame at a time. Between the exposures of each frame, the subject has changed. The composition of the models, background, foreground, sky, scenery and the buildings is one that is in context with the theme of the story. On the other hand, it reveals the relation each element has with each other. For instance, Ɔkɔnore moves into space, before Ananse takes time to meet her from a distance.

The narration runs whilst the camera puns through the set introducing the audience into a new world full of life. Not only does this feeling of life begin with the introductory track (Kweku dɛ onsuro) but also, the sound of birds and the other animals makes it feel like playing the role of God at creation.

The first few steps of Ɔkɔnore should not necessarily be symbolic but primarily, it creates a kind of humour, how she suddenly slides into the scene. And this has been how most of the animation has been rendered. So it is not out of context to realize how Ananse rides on the back of the Lion comfortably and raises his hands in jubilation. The effect gets well - defined with the sound track (Okiti) in the background and it is more of a satire to see Ananse's euphoria on the Lion than a tragedy to see the Lion's ignominy. Plate 49 shows Ananse jubilating on Lion.

Plate 49: Ananse jubilates on Lion.

In almost every film frame, several forms of art have been displayed though sculpture dominates. Painting could always be relied upon to provide colour to what should be seen. For instance, the backdrop is a painting made in acrylic for the skies and part of the foreground is painted to depict grass. Other forms of art that is so evident should be textiles for the costumes, Music for the sound effects, Video for the entire film and graphic design for the cuts. The dominance of sculpture is so obvious in the entire mise-en-scène – the trees, the buildings, the models, the props and the base have all been sculpted.

4.2 DISCUSSIONS

The discussion concerns itself with principles or elements apart from the mainstream canons of sculpture that have influenced what is seen in this production. These principles or elements would be referred to as variables because they may seem indefinite or infinite.

4.2.1 The Sculptural Variables

a. Fantasy

Producing sculpture for this work involved a great sense of visualization. Without elements of fantasy there would not be the ability to create any image out of the story. The sculptures produced did not necessarily follow specific canons but they were made with regards to the power of imagination in connection with the story. Thus, the story inspired or was a guiding principle to the creation of the looks of the models and the type of environment within which they are identified. When the story said Katawire was revered, it was appropriate to imagine him as a Lion in an animal kingdom. Also, if Ɔkɔnore who is a typical Akan was a beautiful and a lovely princess, then she probably would wear ring neck and thus, she has been represented as such. You can picture how Anansekrom would like as a typical Ghanaian village.

b. *Relationship*

Apart from the sculptures possessing a meaningful connection with other forms of art, the models had a strong identity with the story. No matter how

aggressive the Lion is, he was depicted to be gentle. It would be a wonder to see how this production would meet its objective if it was not for the coalition of other forms of art. Textiles, painting, pottery, graphic design, drama and play write, photography, music and video are among the prominent art forms that had an affair with sculpture in this production. Going a little into fashion to design attractive costumes was essential to the general design of the characters. Painting on the other hand, had a very close relationship with sculpture in this production. For instance, in order that the true identity of each character be portrayed, it was vital to paint them in appropriate colours that would be meaningful to their course. To crown it all, it was the power of the camera that was the major transferral means of turning the sculptures from the state of physical or actual sculpture to the state of virtual sculpture.

c. Mores

How the mores of a people would affect a kind of art produced in a particular society is quiet debatable but the sculptures produced here could easily be identified with a particular way of life. Obviously not western, the appearance of the characters conspicuously portrays African features. The society within which the sculpture has been produced has indeed been a prime influence to what is seen in this production by far. Though there are no specific canons as to the way a society should be portrayed in a piece of art, psychologically, what is continuously recognized is what is produced in art. That is why Anansekrom would be portrayed as a village made of mud

houses. The same reason would influence the design of a beautiful lady and a strong man with regards to legends, tales and myths of a people – (Akan) Ghana. This production indeed paints a picture of a certain world – The Akan world in Ghana.

d. Comedy

Chapter 2, section 2.2.12 cites De Stefano (1999) claiming that audiences like to see a quality of charm, pleasing design, simplicity, communication, or magnetism. A weak drawing or design lacks appeal. A design that is complicated or hard to read lacks appeal. Clumsy shapes and awkward moves all have low appeal. So, it would come as though it is a canon to produce sculpture for video to be smooth and thoroughly chased to possibly look like Seth Green and Matthew Senreich's "Robot Chicken" in order to receive massive audience, but insofar as this production was concerned, such a naïve but humourous characters were essential for the satiric expressions the entire production depicts. It might be quite similar to Alexander Calder's "Circus" where comedy has been created with a touch of naïveness and humour in the direction of its subject matter though Calder's work is mechanically biased. Interestingly, the feel of comedy has not only been portrayed in the looks of the characters but also, it has been expressed in the soundtracks and the plot itself. Ananse has a funny head alright and the expressions on the faces of the two people in Anansekrom are funny but in "okiti" the feel of laughter and excitement is equally shown.

e. Locomotive

Locomotive sculptures produced here simply refers to the works related to works that could be described by the combination of modern Latin *locomotivus*, Latin *loco* "from a place" and late Latin *motivus* "moving. This means that the sculptures or the models for this work should move freely but not necessarily as motorized as Calder's works in 1930 or Pierre Jaquet-Droz's mechanical doll, "Father" (1774) but perhaps could be in the shape of Calder's works in 1928 for example, "fishbowl with crack" which was described as a hand induced kinetic sculpture. One basic quality of such a model is its ability to be stable or its ability to stand freely. Once the sculpture can stand, it could also move. Therefore for such a work, it is advisable to have an armature made for it if the figure is tall like the giant bronze statue that appears in the stop motion adventure of "Jason and the Argonauts" created by Harryhausen and Schneer. It was this quality that enabled the Lion carry Ananse on its back about in this production.

f. Mimesis

Jack Burnham has argued in his book "Beyond Modern Sculpture" that the fundamental ambition of sculpture, since its beginnings, is the replication of life. (Krauss, 1977) on the other hand questions this claim, but is sculpture fundamentally mimetic? The argument could go on and on but the concerns of this work has nothing to do with the fundamental goals of sculpture but the concerns here is the ability of the models to simply imitate and simulate. The sculptures for this work should be rendered in such a way that they could act

and also be possible to captivating people thus, allowing the animator to put him or herself into the character. Though the sculptures should be just representational, they should be able to live in a whole world of their own.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

The art of sculpture with its imposing history presents a great challenge in this modern era within which the subject continues to evolve for sculptors to explore the subject to the core. There have been several explorations on technique, material and methods; and this study is no exception. Sculptural variables as in canons of the art have been explored not in physical or actual sculpture but in virtual sculpture.

How virtual sculpture comes into the picture is quiet interesting and hence a worthy argument. When sculpture has been rendered with the traditional materials including clay and methods of sculpture like modelling, carving and assemblage and construction, it was only video that performed the transitional duties of making actual sculpture virtual.

The mainstream canons of the art played their various roles as usual, but they might have been subdued with the discourse of such infinite factors such as fantasy, relationship, mores, comedy, locomotion and mimesis that were a great influence to the making of this production.

Interestingly, beneath video, there was stop-motion animation that made these variables laudable to talk about. This genre of video has been chosen to present sculpture in an

activity that might have modified “stabiles” into “mobiles”. The place of the story in this project can never be undermined since it gave way for fantasy and probably, the rest of the variables that have been talked about. So, the variables may not be for stop-motion animation in general; but the limitation may be with only those videos with a story line.

5.2 CONCLUSIONS

Stop-motion animation could be reckoned to be one of the several video genres but its role has been exceptional in this production. The knack to have organized sculptural objects into a world of its own has given birth to certain variables of sculpture which hitherto might be considered ordinary.

As conceptual as this production is, depicting any image relied upon the ability to fantasize. Thus, the power of the imagination has been a dependable tool to produce sculpture to synchronize with the concept of the production.

The intimate relationship between sculpture and the other arts is adorable. Therefore, animating sculpture could not be in isolation but needed the commitment of as many art forms as possible especially, video.

Regardless of its audience, the sense of comedy could not be relegated. It might be reducing tension and it may be a sweet relief but it is possible to allow the artist to be more expressive.

Interestingly, the sculpture produced would be identified with a certain mores which might be as a result of the concept. But in stop-motion, the models must be locomotive enough to facilitate the displacements on location. Once the sculpture has been made it should be able to mime nature else, it would be something else.

Though these variables may be equally useful in actual sculpture, the discourse would be a little distorted but in the virtual realm, it is uncurled and the argument is worthy. The video produced out of this project would be a perfect backing to every claim established in this thesis.

5.3 RECOMMENDATIONS

With regards to this project, one paramount recommendation should be to incorporate virtual sculpture, and make it an integral part of the syllabus of the study of Sculpture in this university. Digital sculpture and video sculpture are a couple of genres of virtual sculpture that could be considered. Whilst digital sculpture is principally aided by computer softwares, video sculpture relies upon the motion-picture camera to capture actual sculpture into a movie. With reference to chapter two, Section 2.1.1 (Roberts, 2007) attests that both virtual and physical sculptures are valid and mutually supportive media for any sculptor since each possesses distinct advantages while simultaneously defined by distinct limitations. Nevertheless, virtual sculpture is not studied in this department but rendering sculpture virtually could be a very good avenue for sculptors to fully explore their potentials in terms of their creativity given this project as an example.

Another recommendation would be to broaden the knowledge of other Arts apart from Sculpture at the foundation level of this department. This would particularly be good for research work; where the need to cross boundaries to other forms of art might be inevitable.

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APPENDICES

Appendix A

Audio Scripts

A1. The Narration

Ananse in love

Once upon a time, Kweku Ananse and Katawire- the lion were courting the same lady, a very beautiful princess named Ɔkɔnore Yaa in a small village called Anansekrom.

Most people wondered why Ananse would compete with Katawire because they thought he had no chance of succeeding once Ɔkɔnore had told them she would marry the best man.
One day, Ananse boasted to Ɔkɔnore that he would make Katawire a horse, and when he did that, he would ride on him for everyone in the village to see.
Katawire was very angry when he heard what Ananse had said so when he met Ananse along the road, he roared and said: "I thought you said you would make me your horse, here I am, now why don't you try it?
Ananse denied it completely and tricked Katawire and him his horse for everyone to see. Katawire was so ashamed that he run to the bush and never returned to the house. Ananse stayed in the house and had dinner with Ɔkɔnore Yaa.
From that day, Ananse has lived in the rafters of the house in fear that Katawire would come back for him one day.

A2. Audio script for Kweku Ananse

1. Good evening my dear princess Ɔkɔnore Yaa. What are you doing with all this beauty? Can I marry you?
2. Chuckle! Who? Katawire – the lion? I will ride on his back like a horse for everyone to see in this village. He is no contender.
3. Ananse whistles sparingly.
4. (In a weak voice) oh, how can I, it was a joke. As a matter of fact, I was on my way to tell Ɔkɔnore that you are the best man for her but I am tired and weak so I can't go any more. Can you carry me at your back until I regain my strength since you are the strongest of all
5. Yes my love, I will marry you.

A.3 Audio script for Katawire the lion

1. I want you, Ɔkɔnore to be my wife.
2. I am the best in the whole village, everyone knows it.
3. I thought you said you would make me your horse; here I am; now why don't you try it

A.4 Audio script for Ɔkɔnore Yaa

1. You must be the strongest, smartest, bravest and the wisest to be my husband.
2. Prove it if you are the best.
3. Laughter
4. Shriek!
5. Brave and wise Ananse, you have proved to be a better man, I am so proud of you, will you marry me?

Appendix B

Musical Score: Lyrics and song arrangements

Gyata in love

Verse Ahunu Abobrem Gyata
Emmoa domma nyinara hene
Henaa, hena koraa
na oneme bediasei

Chorus Hene me o, hene me o
ƆkƆnore hene me'o
Hene me o, hene me o
Ahoofeɛ Yaa ma yen tsena ee
Gye me soe ee, na ma yen tsena ee
Ayee ayee, ayee, ayee,
ma yen tsena ee
ƆkƆnore ee, ma yen tsena ee

Repeat verse

Chorus Hene me o, hene me o
ƆkƆnore hene me'o
Hene me o, hene me o
Ahoofeɛ́ Yaa ma yen tsena ee
Gye me soe ee, na ma yen tsena ee
Ayee ayee, ayee, ayee,
ma yen tsena ee
ƆkƆnore ee

Bridge Ayee, ayee' ayee, ma yentsena ee
ƆkƆnore ee, ma yentsena ee
ƆkƆnore ee, ma yentsena ee
ƆkƆnore ee, ma yentsena ee
ƆkƆnore ee, ma yentsena ee

Lyrics and composition by
Eugene Ampadu
Engineered by Dickson and Eugene Ampadu

Kweku dɛ onsuro

Verse Kweku dɛ onsudo o, mmm .....
Kweku dɛ onsudo, mmm .....
Kweku ee, Kweku ee, mmm.....
Kweku ee, Kweku ee,
Nara se de asembi nkotum no
Nna Kweku na dabiw ahia woyi

Chorus nda Kweku ee,
Ɔkyena aa Kweku ee
Awo na dabiw ahia woyi

Repeat verse
Repeat chorus
Repeat verse
Repeat chorus

Flute interlude
Repeat verse and chorus
Repeat verse and chorus

Arranged and engineered by
Eugene Ampadu

Okiti

Okiti! Okiti! Okiti! aaay……
Kweku Ananse, Ananse woadi champion ooo……..

Repeat 11 xs