Eastern European experimental animation, fine art aesthetics and the digital age:

A short dissertation presented by

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DECLARATION

I, Anelia Gouteva, declare that

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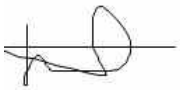
Signature:  Date: 12-01-2017

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I would like to thank the staff members at the Centre for Visual Art for their contribution in influencing my practical work over the years. Special thanks and greatest credit goes to my supervisor Michelle Stewart for her commmitment in guiding both my practical and theoretical research. I would also like to thank the university for providing high quality equipment and software, without which I would have not been able to experiment and produce my films.

ABSTRACT

The study is an exploration of Eastern European animation as it relates to experimental animation practice – in particular as it relates to fine art aesthetics. The research further aims to investigate the validity of this tradition within the context of digital cinema technology. In this regard the investigation focuses on the experimental animated films of Eastern European animators Yuri Norstein and Aleksandr Petrov. The study will importantly also include an analysis of the candidate's practice-based research as it relates to the digital platform, fine art aesthetics and to the candidate's eastern European heritage. As this study is practice-based and comprises a textual and practice component, the research questions relate to both practice and theory. However as both components are related, the research questions relate to both areas of study:

As the study considers how digital cinema technology and creative applications can emulate and facilitate the processes and aesthetics of traditional, hand-crafted animation, the research question which arises from the dominance of digital technology within the genre of animation, is whether traditional animation methods have become obsolete. The study aims to address this question through an in-depth exploration of the experimental, hand-crafted animation techniques of Norstein and Petrov. This research question is also a significant aim in the practice-based component of this study and is explored textually and in the candidate’s two film projects.

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INTRODUCTION

This study examines the significance of traditional hand-drawn frame-by-frame and stop-motion animation both as a fine art form and a valid form of film making within the context of the digital revolution. In this regard, the exploration focuses on the films of selected Eastern European animators as well as the candidate's films which were created in partial fulfilment of her M.A. study. These films will be discussed in terms of narrative, aesthetics, process and personal and artistic expression. Selected films of the Russian filmmakers Yuri Norstein and Alexandr Petrov will be studied in detail.

The study will focus on experimental Eastern European animation, which does not comply with the Socialist Realism movement. Socialist Realism refers to the realistic art style serving the purpose of glorifying communist values that was developed in the Soviet Union (Todd, James G; 2009). The animators to be studied apply fine art techniques and approaches to their animation. Alexandr Petrov will be studied for his literary adaptations, which he is responsible for directing and animating. His hand-painted animation style is likened to Romantic Realism as in his work he combines aspects of Realism and Romanticism. At the same time his use of colour and brush stokes resembles the style of the Impressionist painters. Neither his style nor his choice of themes are identifying to the aims of communism. Yuri Norstein has been influenced by art movements of the 20th century such as Cubism. This influence is particularly evident in his early film *25th October, the First Day* 1968 in collaboration with Arkadiy Tyurin. The scenes in the film echo the painting styles of analytical cubism, in the use of interlocking geometric shapes. Norstein has mastered his own stop-motion style with his ink on paper and celluloid puppets. These two animators' works and ideas, and their hand-animated, hand-manipulated animation approaches will be contrasted and discussed in terms of their relevance to digital animation and digital film technology.

Also significant to the study is the influence of the candidate's Eastern European heritage on her films. Although based in South Africa the candidate's practice-based research has an affinity with the Eastern European tradition of animation, not only in her focus on experimental, stop-motion animation but also in terms of visual and narrative elements. Hence the animators to be studied are those that exhibit affinity with the same traditions. In the context of South African experimental animation , William Kentridge is the most influential animator. While the subject

matter explored by Kentridge, such as his multi-media performance of *The Nose* (2012) was influenced by the Russian writer Nicolai Gogol's *The Nose* (1835-6) and stylistically refers to the art genre of Russian Constructivism it is equally influenced by the Weimar period as well as Grman Expressionism (Sanchez, 2015; 20). Neither the work of the candidate nor the works of the animators Norstein and Petrov have an affinity with the subject matter and artistic references made by Kentridge. For this reason the work of Kentridge does not form the main focus of the study despite his great influence on South African experimental animation. Analysis of the candidate's practice led research will also reflect on the current debates regarding the validity of traditional animation methods in the digital era.

With the advancement of digital technology, animation and film-making have become more accessible to the individual and to small studios. The new digital technology is fairly affordable and offers everything required for all the stages of production. In other words, any animated film can be entirely digitally produced. Digital technology has replaced not only the method of creation but to an extent the aesthetics of film and animation. The question, which arises from this availability of technology, is whether traditional animation methods have become obsolete. With the advancement and adaptation of new technology, it may be argued that old media is rendered obsolete and is thus replaced. Contrary to this view, however, is the argument that this advancement in fact brings about a revival and greater interest in revisiting earlier traditions. Peter Weibel argues that the success of the new technical media is not simply that it provides new media for expression but it also "exerts a decisive influence on historical media such as painting and sculpture" (Weibel: 2012). He further states that fine art traditions were not until recently regarded as media. With the use of new technological media one has the possibility to re-evaluate the use of old media, as far as even establishing new approaches and possibilities within the old media. The study will explore how the digital revolution has to an extent encouraged the adaptation of traditional fine art and animation approaches. It is further argued that the digital technology in fact facilitates and echoes earlier traditions. To define new media, Lev Manovich states that the popular understanding of the term identifies it with the use of a computer for purposes of distribution rather than production (Manovich, 2011:19). Manovich himself finds this definition limiting and incomplete as it is inaccurate to regard the computer as merely a tool for exhibition and distribution rather than a tool for production (Manovich, 2011:19). Instead the new digital media is well integrated into old media through all stages of content production. In light of this debate the study will consider the theoretical work of Lev Manovich. Traditional animation approaches will thus be studied for their artistry and aesthetic

and how they influence contemporary animation as well as the candidate's work.

The first chapter will provide an overview of traditional hand-drawn, stop-motion animation, as it is the basis for the traditional animation techniques used and adopted by Norstein and Petrov. These approaches are also adopted by the candidate in her films. The main animation approaches discussed in this chapter are paper cut-out animation (as used by Norstein) and paint-on-glass stop-motion animation (as used by Petrov). Paper puppets can either be drawn in detail or they can simply be silhouettes and normally consist of multiple assembled parts and layers that are repositioned for every frame to create movement (Kenyon, 1998). A digital or analogue camera can be used to capture every frame of the sequence. The paint-on-glass stop-motion process is also known as revived painting [Kenyon (1998) Animation World Magazine]. When applying this technique the artist/animator normally paints under the camera using slow drying paints. Each frame is slightly altered and photographed. As with the paper cut-out stop-motion, both digital and analogue devices can be used to create the final film. With the development of digital technologies and improvements of graphics software, both techniques can be entirely digitally simulated. This has inevitably raised questions about the validity of traditional approaches. Such debates will be considered in this chapter as they relate to traditional hand drawn, stop-motion animation processes and within the context of the films of Norstein and Petrov.

The second chapter will focus on the films of Yuri Norstein. He will be studied for the artistic significance of his work, his engagement with the paper cut-out tradition of animation; as well his strict adherence to pre-digital stop-motion animation processes. His background in fine art traditions as influence to his work will be examined. Norstein will be studied with main focus on the film *Tale of Tales.* The argument will consider whether his emphatic avoidance of using digital technology has made any significant impact on films. Also typical of Norstein's narrative approach is his use of allegory and metaphor – a common characteristic of Experimental European animation. This particular narrative approach, is also reflected in the candidate's practice-based research, which involves the use of allegoric and metaphorical ideas.

The third chapter will focus on Alexandr Petrov's body of work with reference to examples the films *The Old Man And The Sea* and *Dream Of A Ridiculous Man*. Unlike Norstein, Petrov uses a hand-painted stop-motion technique, which largely refers to painterly Impressionism and Romanticism and thus, like Norstein, has strong references to traditional fine art. Contrary to Norstein's avoidance of digital cinema technology, Petrov does utilize digital processes for his

final productions. Petrov will thus be considered in terms of his integration of traditional experimental animation processes and digital filmmaking technology. The influence of Petrov's processes to the film *The Everlasting and The Ever-changing* on the candidate's practice-based research, are also examined.

The fourth chapter will be a study of the candidate's animation approaches and techniques as they relate to the above-mentioned debates and animators. The film to be discussed is *The Everlasting and The Ever-changing.* This is a mostly hand-painted, oil-on-glass stop-motion animation. These approaches, as well the various ways, in which they were facilitated by the digital platform, will be considered. Digital art as explained by Christine Paul, is a term inclusive of broad range of artistic practices, not referring to a specific aesthetic. Artists have applied digital technologies in the process of creating artworks ranging from digital photographs to sculpture. The artwork may or may not display characteristics of the digital tool used in the process of creation. Typically however the use of digital technology as a medium implies that the artwork is produced stored and exhibited in digital format (Paul: 2002, 472). In the case of the animation is *The Everlasting and The Ever-changing* the digital platform is used mainly as a facilitating tool and to a lesser degree as a medium. That is because the film although largely hand painted using analogue methods, is captured, edited, stored and viewed using digital technology. The second film, *Set Me Free,* on the other hand is entirely digitally drawn. The nature of the animation process however, is very similar to the earlier paper cut-out, stop-motion process. This integration of traditional animation approaches with the digital platform will be considered in detail. These processes will also be discussed in terms of how they relate to the genre of experimental animation.

The fifth chapter will focus on the narrative approaches utilized by the candidate in each film. Similar to the works of Yuri Norstein, both films are allegories, which are aimed at encouraging thought and interpretation as opposed to directly revealing the message. Both films use visual metaphors, which are used to illustrate a concept. The first film *Set Me Free* illustrates metaphorically an internal struggle experienced by the character. The resolution is open to the viewer's interpretation. The second film *The Everlasting and The Ever-changing* is a self-reflective experimental animation. The film is intended to tease the viewer while at the same time questioning the importance of the very medium it is created from. Metaphorically the battle between different art traditions is illustrated by the different characters who are each created using different, both old and new media. Neither of the films contains any dialogue. The extent

to which the films can be categorised as experimental, in terms of narrative approach, will be discussed in relation to the criteria of experimental animation.

1. TRADITIONAL ANIMATION AND THE NEW MEDIA

This chapter introduces the theme of the study by giving an overview of the 'classic' 2D animation process. The importance of the classic animation processes is to introduce briefly the dominant mode of animation before the digital revolution. Both animators, Aleksandr Petrov and Yuri Norstein, draw on earlier animation traditions although both can be located within the genre of experimental animation. Secondly the renewed interest and validity of experimental animation processes within the context of new media and the digital platform will be introduced. The validity of traditional animation approaches within the context of the new media and the digital platform will briefly be discussed by introducing the animation techniques by independent animators, with greater focus on the stop-motion approaches by Aleksandr Petrov and Yuri Norstein. [1]

Before comparing and contrasting traditional 2D animation and new media 2D animation there needs to be an understanding of what constitutes traditional, in terms of animation. In terms of this study, traditional animation generally refers to methods used in cinema before the advancement of computers. This includes classic animation, cel animation, hand-drawn animation and stop-motion. Stop-motion can fall under both the category of traditional and experimental form of animation. (Wells, 1998: 35)

Conventionally, mainstream, classic animations are created in a studio and different roles are allocated to the animation team. A key animator is responsible for drawing few key frames that from the entire movement. Once everything is finalised, the task of completing the full sequence is assigned to a team of animators referred to as ‘inbetweeners’. The ‘inbetweeners’ carefully and accurately draw the frames in between the key frames to create smooth transitions. Classic animation involves animators drawing sequences of images independently to create the frames of the film. The drawings making up each frame are done on a thin transparent celluloid, abbreviated as cel. The outlines are inked onto the cel and the colours are applied on the reverse side with acrylic or gouache paint. The transparent quality of the cel enables the character to be animated separately from the background. The frames are photographed with the use of an animation camera. The animation camera is a type of rostrum camera, which is specifically

1! Both animators Alexandr Petrov and Yuri Norstein are discussed in general here, and are focused on in greater detail in the following chapters.

designed to animate a still image or object. It is made up of a camera body, lens, film, stand and a table with lighting from top and bottom. The drawings to be photographed are placed on the table and lighting is adjusted according to the specific need. (Douglas C. Lovell, 1990)
Experimental animation may fall under the broad idea of traditional, pre digital animation, but it significantly contrasts to the tradition of mainstream classical animation. Cel animation is considered the most "convenient technique for mass production of cartoons and therefore the most commonly seen form of animation" (Wells,1998: 35). As a result it "constitutes what may be understood as orthodox animation" (Wells, 1998: 35). Typically this orthodox animation may only occasionally draw the attention of its audience to its construction. Instead of focusing on colour design and material it prioritises its content. Construction of character, conflict and the self-contained narrative are the main goal. The importance of the visual elements is not for the film to be distinguished as aesthetic achievement but rather to reinforce the particular cartoon like style. This is particularly true for Disney hyper-realism where the consistency of the style was aimed for the creation of a believable fantasy (Wells, 1998: 37). Paul Wells in his *Understanding Animation* (1998) defines realism in animation by refering to the term "hyper-reality" given by Umberto Eco to describe Disney theme parks. The term implies that the parks offer an artificial environment as a representation of the real world. Wells relates the artificially created world in Disney theme parks to Disney animation as in essence the animations offer an artificial realm that is represented as real. Regardless of whether the animation is a fairy-tale narrative or involves the use of animals and caricatured humans, so long as it can maintain the suspension of disbelief, it falls into the category of hyper-realism (Wells, 1998: 25). The audience, becoming used to the reinforced style will be able to suspend their disbelief and engage with the story. In terms of narrative, early cartoons illustrated their pre-composed soundtracks with which they were visually synchronised. These kinds of films are storyboarded prior to being animated "after a fashion of comic strip and thus its linear mode of storytelling" (Wells, 1998: 36). Typically orthodox animation has a narrative structure that centres on dramatic climaxes (e.g. chase sequences), character conflict and resolution. The story and plot line was held in place by specific logical continuity, which served to establish a problematic situation to which the resolution is to be found through the protagonist with whom the audience are meant to sympathise (Wells, 1998: 37). This method was applied regardless of whether a cartoon was based on specific well known fairy-tale or based on an improvised sight gags (Wells, 1998: 36). With traditional cel animation there is consistency in medium and style. Throughout the duration of the film it remains being a "fixed two-dimensional style", unlike in the case of experimental animation (Wells, 1998: 37). The composition of shots and camera movement echo the live-

action convention. Frame compositions include wide, medium and close-ups, while camera movement is limited to left to right and up and down tilts. Experimental animation on the other hand may resist the narrative and configuration of classic animation. In other words it does not necessarily deal with the "expression of a character through the depiction of a human being or a creature" (Wells, 1998: 43). According to Ross Gibson "animated films have been termed experimental when opposing the dominant aesthetics of traditional puppet and model animation, orthodox cel or drawn material, and Disney style" (Gibson, 2010). Experimental animation as a term has been associated with non-objective, non-linear look as well as more personal approach both visually and thematically. Gibson also explains that what "characterizes 'experimental animation is its innovation in the use of materials and techniques" (Gibson: 2010, 7). As proposed by William Moritz, non-objective animation is the purest and most difficult form of animation. As opposed to merely creating the "illusion of representational life, creating new, imaginative and expressive motions, is the true creation" (Moritz, 1988:25). In contrast to orthodox animation, which is usually characterized by a unity of style, in experimental animation different media and modes of animation are often combined (Wells, 1998: 45). Experimental animation is also distinguished from orthodox or classical animation in the expressed presence of the artist. The films are subjective work of the artists and their themes are largely personal often dealing with philosophic and spiritual concerns. Thus experimental animation is a fairly inclusive concept. Animators can be adopting traditional animation methods and aesthetics while applying them in unconventional ways.

To begin debating the validity of both traditional and experimental animation within the context of the digital revolution, various animation techniques by individual animators need to be examined. Animation techniques by both animators, Yuri Norstein and Aleksandr Petrov, involve frame-by-frame stop-motion. Besides the fact that the artistic styles of the two animators are significantly different, they also take on different approach to their filming technique. Petrov utilizes the digital platform for both his video and audio processing, while Norstein firmly adheres to traditional analogue medium. Animation under the camera includes a variety of techniques that involve manipulations of loose material, such as slow drying paints and sand (Kenyon: 1998). Renowned South African animator William Kentridge uses similar medium manipulation technique in his experimental art and animation. His process is described as destructive in the sense that he allows traces of erased and altered frames in his animations. Kentridge's preferred medium is charcoal as it offers strong tonal range as it is photographed. His stop-motion method involves the drawing of one original image or frame, which he then

alters by smudging, erasing and redrawing the image as he photographs the changes (Krauss: 2013, 20). Alternatively, as is the case with Norstein, paper silhouettes and drawings are animated on multiple layers of glass. Caroline Leaf is among the notable animators adopting the above mentioned media including sand and paint. When working with sand she uses "white beach sand poured out onto an under lit piece of glass in a darkened room, letting the sand become a black silhouette against a white ground" (Kenyon: 1998). The sand is then moved and manipulated to create and capture the frames for the movement. Wendy Tilby like Petrov uses slow drying paint for animation. Ideally the paint would be water-based and she states "paint-on-glass is ideal for metamorphosing, animated scene transitions, dream sequences and fish" (Kenyon: 1998). Aleksandr Petrov describes painting on glass to be much like painting on canvas. His subject matter includes "portraits, landscapes, and historical events in a realistic style" (Kenyon: 1998). He paints using semi-transparent oil paints on glass lit from below. The variation in opacity creates depth in every brush stroke and movement is created by partially erasing and repainting every frame. Yuri Norstein works on multiple layers of glass that are either lit from below or above. His elements and characters are created from paper cut outs. Animation techniques involving paper cut out puppets date back to early 20th century traditions. Among the most notable animators from this period employing this technique is Lotte Reiniger, who is best known for her feature film *The Adventure of Prince Achmed* 1926. Reiniger's stop-motion animation technique involves manipulation of paper puppets. Her particular style of paper cut out animation consists of silhouettes of varying tone opacity. The silhouettes don't have any detail on the surface however they are meticulously cut. She is known for the ability of holding the scissors in her right hand while manipulating the paper with her left. If a more complex figure needed to be created she would have built it from 25 to 50 separate pieces. (Mouritz: 1996) Norstein's paper shapes are not silhouettes but are highly detailed ink drawings. Characters consist of many different parts that are rearranged to create movement. Much like those of Reiniger, the complex figures are made from many separate pieces that are assembled according to the desired pose and movement.

The question that remains is how have technological advancements impacted on these traditional animation processes? To elaborate has the digital platform, made traditional animation techniques obsolete or does the digital platform simply facilitate these traditional processes and production techniques? The study will argue that rather than making these traditions and processes obsolete, the digital platform has expanded the tradition of animation to include digital processes and multiple disciplines, as well as facilitating the process. The advancement of digital

technology animation has become increasingly more accessible to the individual. Digital photography as well as affordable digital editing software, have allowed animators to complete any given project in a shorter time frame. Manovic wrote “since 1990 the advance in computer hardware and graphic imaging made it possible to generate film-like scenes directly in a computer with the help of 3D graphic packages. The synthesized image can be easily altered, substituted one for another, and so on” (Manovic, 2002; 168).

Digital media, has in many ways changed the creation and production process of animation. The first to be examined are the major differences between old and new media. Manovic states that the “old media involved a human creator who manually assembled textual, visual and/or audio elements into a particular composition or a sequence” (Manovic, 2002; 56) This is largely evident in the tasks performed by the earlier traditional animators. Also in the old media “numerous copies could be run off from the master” (Manovic, 2002; 56) which would be identical in structure although not always identical in quality. New media is thought to be characterized by variability. Instead of having identical copies created by a human author, many different versions are assembled by a computer. (Manovic, 2002; 56) Typical example of this variability is the scalability where different versions of the same media generated of various sizes and detail. (Manovic, 2002; 58) This saves time and effort as one file can be altered and reused differently. Yet it is possible to digitally produce endless number of copies without degradation. The tonal variation in analogue images on the contrary is not replicable. From an animator’s point of view this means that any digitally created or photographed frame or element can be reproduced by copying its code as opposed to manually creating it. Digital data requires a lot of storage space on a device. In a sense this saves from the physical storage space that is required to store physical media, such as film, paper or magnetic tape. However if digital files are compressed, it results in loss of quality as some information is deleted from the original.

A major way that the digital platform has revolutionized animation is the facilitating potential of digital software. Electronic computer generated animation has primarily been developed “in an attempt to save the animator from making all of the in-between drawings, generating them by computational means instead of manually”(Lovell D. C, Lovell L, Rose M. 1990). 3D animation and digitally generated graphics are becoming mainstream, replacing earlier 2D traditional hand-draw frame-by-frame animation. Alongside the 3D software however, 2D software is developed which facilitates the traditional hand-drawn animation methods on a digital platform. The means

by which hand-drawn animation is created have changed, but this does not always apply to visual aesthetic. The advancement of new media has provided with a variety of time saving advantages. However, despite the fact that drawing every frame for an animation is time consuming, for certain instances it is preferable and even easier. (Lovell D. C, Lovell L, Rose M. 1990). For the purposes of expression, artists prefer to go against mathematical precision. Movement and images are distorted in order to enhance the expression. A computer can perform any transformation, however it is often simpler to achieve the many complex changes that take place in the muscles of the face, with a simple well drawn stroke. For the purpose of this paper 2D software will be studied as a tool, which accommodates traditional animation into a digital platform.

Animation to an extent has become a redundant term referring to all manipulated moving-image practices. Instead of being considered exclusively experimental film or the classical cartoon, animation now has become profoundly instrumental to film as it intervenes with live action in the form of visual or special effects. Rather than being defined as a separate genre it has largely become an essential element of filmmaking. This blending of disciplines necessitates animation to be re-examined as a term. Manovic proposes that the "manual construction of images in digital cinema represents a return to nineteenth century pre-cinematic practices when images were hand-painted and hand-animated" (Wells and Hardstaff, 2008:30). While during the early twentieth century manual techniques were attributed to animation alone, with the advancement of the digital era, they have again become common in the filmmaking process. As a result, cinema and animation can no longer be distinguished as entirely separate traditions. In criticism of this view the authors Paul Wells and Johnny Hardstaff (Wells and Hardstaff ,2008:30) state that it is correct but exclusive for a number of reasons. It is argued that, while the genre of animation can still signify difference and retains its identity, animation can no longer be classified by traditional animation genres nor simply within the "parameters as a form co-opted by the computer" (Paul Wells, 2008) and adapted in main stream as well as independent cinema. This is due to the integration of animation into contemporary art, where the traditional animation technique may be utilized but the reception and context may altered or challenged in a number of ways. Karolina Sobecka's *Wildlife* is an example of contemporary artwork, which adapts animation techniques but is at the same time taken out of the context of an art gallery and cinema. In her piece *Wildlife* an animation of a running tiger is projected from a moving car onto city spaces at night. The movement of the tiger keeps pace with the speed of the vehicle. This work pushes animation both thematically and technically on a new level. The city space becomes an essential part of the

artwork while that in itself serves the meaning of the artist is communicating. In this case the image of the tiger running through urban structures is making a statement regarding alienation of wildlife that once used to inhabit the land. The viewing environment is unconventional yet similar to the cinema context, the audience may be seated in the car and are watching the projected image through a window much like a screen. This kind of animated art installation borrows both from animation and cinema traditions without falling into the category of either. The candidate's own work *The Everlasting and The Everchanging,* is digitally processed animation that is intended to be watched on screen in the typical cinema context. That being said, the film's technique is intended to make a statement about itself, similar to Sobecka's *Wildlife.* This will be further studied in the reflective chapter of the study.

This section focuses on selected aspects of 2D digital animation and the ways in which 2D digital drawing and animation software have the potential to imitate traditional practices. The particular digital process discussed are those explored in the candidate's work. To begin with, digital graphics software provides with full spectrum of colours which can be accurately selected by code. The opacity, brightness and saturation can easily be altered according to the artists' preference. Traditionally animators have used layers of glass or celluloid for their transparency. As mentioned earlier this enables them to manipulate an object separately from the background. Examples of graphics software such as *Adobe Photoshop*, *Adobe Fireworks, Corel Painte*r and *GIMP* all offer multiple virtual layers which have the same function as that of traditional animation. In digital terms, the transparency of layers can be adjusted by selecting the opacity from a scale of 0 to 100%. If a variety of background textures are not already available on the software, the artist has the option of scanning any texture and storing it as a digital file. Any fabric or paper used by artists or painters can also be used as a background to the digital drawing. The availability of virtual tools of the software depends on its purpose and advancement. Most will have basic pens and brushes, erasers, paint bucket tool, selection and crop tool. Painting software, such as *Corel Painter* are specifically developed to simulate artists' tools as realistically as possible. In theory this means that the artist while drawing with an electronic pen and a graphics tablet, should experience realistic simulation of the chosen traditional medium. In reality however this is not quite the case. There is a number of principles by which the digital tools mimic reality. The pressure sensitivity of the electronic pen largely depends on the design, manufacturer and compatibility with the software. The pressure sensitivity is achieved through a software which operates on the background. Such software is commonly referred to as a device driver which is needed to access and control a peripheral device connected to the computer

(Computer Concepts and Terminology 2004). As a result the artist can produce a variety of thickness and opacity in strokes when using the electronic pen and the graphics software. More importantly this is simply achieved by the amount of pressure applied by hand.

There is however one major difference between a real surface and a digital one. In reality, the surface whether it be paper or canvas, has some absorbency, the celluloid on the other hand does not. Initially in the digital canvas none of the surfaces have absorbency. This means that the pencil, pastel, ink or paint stroke will not interact with its virtual surface the same way that it would in reality. In order for this effect to be achieved the graphics software is equipped with additional controls to create a more realistic look. Simulations of artistic brushes come with controls termed, opacity, grain, bleed and jitter. All of those are functions, which again are adjusted by selecting from a scale of 0 to 100%. Similarly the stoke design and size can be selected separately. The opacity function is fairly self-explanatory. Much like a separate layer, the opacity of the brush stoke is adjusted according to the desired effect. The grain refers to the grain in the surface, however the brush interaction with paper grain can be controlled trough the brush settings. When a pressure sensitive tablet is used, "a light stroke colours only the peaks and ridges of the grain, while a heavy stroke fills colour deep into the pockets and valleys" (Corel Painter 2015). When zooming into the canvas it is clearly visible that in reality the grain setting determines how many and which pixels to be coloured and which are to remain blank. The stroke jitter control is used to create a "randomised jitter to the brushstroke" (Corel Painter 2015; 327). Dabs are set to appear randomly outside the brushstroke path. (Corel Painter 2015; 327). The bleed control allows the artist to adjust how much the brush colours smear the underlying colours, which includes the paper colour (Corel Painter 2015; 398). Both hardware and software have been advanced to give the artist fairly realistic feel to the digital art tools. Thus the digital artistic tools exist as parallel media, which mimic tradition media.

Digital 2D hand-drawn, frame-by-frame animation follows a similar principal to the one of the traditional approach. Characters and backgrounds are animated separately, on a separate layer. Unlike the traditional stop-motion, the digitally drawn stop-motion does not require any photographing. Graphics software that are used for frame-by-frame animation provide the option of creating a frame stack file. This is a digital file of series of frames, which enable playback with a specific frame rate. After the sequence is completed the file is exported either as a sequence of numbered frames or a compressed video format. The candidate's short animated film *Set Me Free* is entirely digitally created using this stop-motion technique. Sequences of drawings

are completed which when played in order they create movement. The digital layers are similar to the paper cut out puppets as both consist of separately drawn elements. All backgrounds are drawn separately and animated on a different layer. The techniques will be analysed in greater depth in the reflective chapter.

Digital media has brought many changes to the animation approaches and techniques. The laborious tasks of animators have largely been replaced by computer applications. While traditional animation methods such as classical cel animation still exist in cinema practice, they have been adapted and integrated into digital film and animation. Despite the convenience there is need and desire for personal artistic expression, which has encouraged artists and filmmakers to evaluate the use of their chosen medium. It is the introduction of the new technological medium that has inspired the fresh evaluation and appreciation of the old non-digital media. Thus the new media not only isn't a replacement of old media, but it has contributed in the establishment of the new approaches and applications of the old media and traditions. While the technology is new, it is used as a facilitating tool, hence the processes used within the digital platform largely draw on and echo the earlier traditions. The term animation has become more inclusive and not confined to cinema due to the diverse artistic practices that have adapted the animation traditions.

2. YURI NORSTEIN- TRADITIONAL ANIMATION, NARRATIVE STRUCTURE AND VISUAL METAPHOR

This chapter will explore and focus on the animation techniques utilized by the Russian animator Yuri Norstein. His body of work will be analysed both technically and conceptually. Selected animated films by Norstein will be studied with the main focus on *Tale of Tales* and *The Overcoat*. His works will be studied for their narrative structures, strict adherence to traditional animation techniques, lack of engagement with the digital platform and their relation to experimental animation. Furthermore, the validity of his traditional media approach in the face of the digital revolution will be considered.

Yuri Norstein uses memory as a narrative device, which is particularly prevalent in *Tale of Tales*. Memory content exists in the form of flashes of images sounds and thoughts in the mind. As stated by Judith Collins (2004) "memory has its own models of expression: these are characterized by the fragmentary, non-linear quality of moments recalled out of time" (Kuhn 2002; 232). Norstein uses non-linear narrative structure in his films that echoes the flow of memory flashes experienced in the mind. *Tale of Tales* exemplifies this approach as the film is comprised of different short scenes that are not ordered sequentially. Furthermore the film is of particular autobiographical significance and reflects upon memories from Norstein's childhood. Norstein approaches his subject matter with significant use of allegory and visual metaphors to convey meaning. Visual metaphours and allegory serve to address social or political issues in a subtle manner by visual association. One practical reason why Norstein makes extensive use of visual metaphours is to bypass the strict censorship during the Soviet regime. As mentioned earlier Norstein's work is not comfronting with the ideas of Socialist Realism, and in fact it is often critical of the mainstream ideas at the time. In order to reach his audience without being banned by the censorship he had to adopt a less literal and more symbolic approach of story telling. Such challenges are relevant even for artists of today should they wish to express a non mainstream political view. Of corse the consequences for creating a provocative artwork would not be the same as those faced by artist like Norstein during the Soviet regime. However the non literal symbolic approach is well worth exploring both practically and theoretically. This will be studied in more depth with reference to the film *Tale of Tales.* As his work opposes the orthodox linear narrative, it falls within the common definition of experimental animation, as Gibson states "experimental animation as a term has become associated with non-objective, non-linear work" (Gibson; 2010; 7). Norstein works in a small studio with a small team and his work

creates a personal statement, thus placing him within the genre of experimental animation. Nonetheless, it can also be argued that some aspects of his work refer to the classic tradition of animation as it will be further discussed. Norstein makes significant use of hyperrealism in his work. According to the animation theorist Paul Wells, in the context of animation hyper-realism has come to define a mode of animation which, "despite the medium's obvious artifice, strives for realism" (Wells, 1998; 25). A believable yet fictional world is created. Norstein creates hyper-realistic worlds and settings, which echo the tradition of classic Disney films. Norstein himself reflects upon the notion of hyperrealism in animation in his book *Snow on the Grass* (2008). As previously stated the term hyper-realism was derived from the term hyper-reality given by Umberto Eco to describe Disney theme parks. In a similar manner the the animated films present the viewer with a believable fantasy. Wells further states that the hyper-realism of of Disney films can be used as the "yardstick by which other kinds of animation may be measured for its relative degree of realism"(Wells, 1998; 25). Thus an animated film may be categorised as non-realist or abstract the more it deviates from Disney's model of "hyper-realism". Furthermore such a deviation demonstrates not only different kind of approach but also purpose (Wells, 1998; 26). Wells describes specific criteria that films must comply with in order to fit in the spectrum of hyper-realism. Firs the design, context and action must correspond to live-action film's representation of reality. Secondly the characters, objects and the environment must all be subject to physical laws of reality. Thirdly the film would have diegetic sound that corresponds with the given context. And finally the movement of the characters' bodies as well as their behavior must correspond to that of human beings and animals in the real world. That being said Disney films vary with regards to their adherence or departure from realism, so they do not all fit the notion of "hyper-realism". Early Disney animation is well known for the squash and stretch exaggeration of body movement for expressive purposes. With regards to sound, Disney films are known to utilize non-diegetic sound extensively. Much like the work of Fyodor Khitruk, many Disney animations are animated to a pre-composed sound track that is out of context with the environment. Since Wells' idea of using Disney animation as a measuring unit for realism in animation operates by certain exclusion, Steve Rowley proposes different set of criteria in the article entitled *Life Reproduced in Drawings: Realism in Animation* (2005). He categorizes realism in animation in five groups. Visual realism which is the given extent environments and characters resemble those of the physical world. Aural realism is defined as the extent to which the sound effects given to the animated environment and characters resemble realistic sound. Realism of motion is described as the extent to which the constructed movement of the environment and characters echoes that of the real world. Narrative and character realism is the

term given to the extent to which the fictitious events and characters of the animated film are constructed to make the audience believe they are viewing events and characters that actually exist. Social Realism is the extent to which the animated film is constructed to make the audience believe that the fictitious world in which the events take place is as complex and varied as the real world (Rowley, 2005). Norstein's work borrows heavily from the notions of hyper-reality.

Norstein believes animation is more expressive in comparison with live action. In animation there is one significant advantage in that the physiology of the real world does not matter. Animation has a visual element, which allows one to almost approach reality without stepping over the border. Sometimes the reference to reality is done deliberately, such as the water in *Hedgehog in the Fog,* the fireworks in *Heron and the Crane* and the cars in *Tale of Tales.* This is only approximated reality but due to the fact that it is selected for specific moments, the reality draws attention to itself, thus appearing even more real than it would if the entire film is live action. In Norstein's view,the director can use this method to their advantage. The audience will anticipate reality through the convention of a man-made image, which will show through gesture that it is not directly connected to the image. The use of zoological characters as metaphors has the same effect, as it is non-human, drawn character adopting human gestures that give it life. According to Norstein, those realistic human gestures give life to the character, and so drawing attention to the illusion of reality, "which seems more real than reality itself" [Norstein. Y. (2002) Snow on the grass *Kinoart*]. The same gestures in live action films are taken for granted, while in animation they have the ability to surprise. Hence the animation becomes phantasmagoric. [Norstein. Y. (2002) Snow on the grass *Kinoart*] Furthermore the use of zoological characters as visual metaphors lets the qualities attributed to any particular animal be used to illustrate the personality of the character by association. This approach is taken especially when the animated film is intended to criticise human society.

Norstein works entirely with traditional, hand-crafted media, which excludes any digital processing. He creates stop-motion paper puppets, which are manually animated and filmed using analogue photography. The basis for his figurines is a primed foil with white lead, tinted with grisaille watercolour or oil paint. This provides the silhouette and background tone for the body, head and limbs of the given character. The foil thus translates into the language of traditional painting, serving the purpose of under-painting. The final drawing is done on

celluloid, which is applied to the primed foil. The foil becomes the foundation tone of the character, while the celluloid the basis for drawing. The whole characters are assembled from the separate body parts. Each body part is further divided into smaller elements giving life to the characters. Separate eyes, ears, noses and even wrinkles and skin folds are done on separate pieces of celluloid. The transparency of the celluloid creates air space around the edge between the base and prime. This technique is used to create and animate the characters of Norstein's later films including *Tale of Tales*, *The Overcoat*, and *Hedgehog in the Fog* as well as *The Heron and The Crane*. The characters have similar aesthetic and technical features although very different personalities are being portrayed in the different films. The background space is similar in style to the characters. If the character is taken in detail "it will be common to the space it animates, but also the character of the structure has the same features that of space in relation to the character" [Norstein. Y. (2002) Snow on the grass *Kinoart*]. The backgrounds are mainly drawn in the same style and created out of the same foil and celluloid. In order for three dimensionality and depth to be achieved, separate elements are layered on multiple layers of glass. Norstein's films also feature real footage of fire, water and fireworks.

His work reflects on traditions not only technically but also in terms of composition. Norstein talks about the importance of knowing, understanding and analysing the principles of composition before composing a film frame. According to Norstein one has to know the composition of the Renaissance artists, Songs of Giotto, Uccello's mathematical compositions, Degas and the photographic moments. In the eastern tradition, there is space without perspective, while in Europe there is prospect without space. Different philosophies give birth to different structures. In the European perspective the world converges to a point, in the east the world expands outwards [Norstein. Y. (2002) Snow on the grass *Kinoart*]. The two are reverse perspectives to each other. Yuri Norstein takes into consideration everything before composing a frame or a storyboard. Despite his broad knowledge of composition and culturally stylistic differences, Norstein admits occasionally having difficulties in deciding on composition, for example the episode of Akaki in his room in *The Overcoat*. He feared that the view of the character would have been unbearably boring. All his smallest movements are captured in detail though there are no visual tricks and no surprise actions. Initially the character movement in *The Overcoat* was mainly horizontal which creates a rather quiet and relaxed atmosphere. This is unlike the vertical more emotionally challenging movement. According to Norstein. emotion can be added to a horizontal movement if the atmosphere has a sense of depth to it, as per the *Heron and the Crane,* where characters move horizontally but the mist and depth create dreamy

atmosphere. In *The Overcoat*, however, the angle of motion is associated with the architecture of the film frame. The architecture of the film frame is associated with the architecture of St Petersburg, which makes the composition of the frame and action relatively predetermined. Norstein describes the composition of *The Overcoat* to be of Western influence unlike for example *Hedgehog in the Fog,* which is predominantly eastern. [Norstein. Y. (2002) Snow on the grass *Kinoart*]

Figure [2]

2! Figure 1 shows Yuri Norstein in his studio holding the building for the film *The Overcoat.*

Figure [3]

Given the advancement of computer technology, Norstein's traditional animation approach appears to be detailed, time consuming and difficult. Norstein admits that while his method indeed narrows the technological possibilities, at the same time it increases the aesthetic idea. It draws on one of the many important points, that being the art of probation. Unlike with digital technology there is no 'preview' or 'undo' option. The convention on the other hand opens for artistic urgency, which is the uniqueness of the developing image. [Norstein. Y. (2003) Snow on the grass *Kinoart*]

A study of the complex technical and conceptual aspects of the film *The Overcoat*

Norstein's film *The Overcoat* is based on the short story by Nicolai Gogol. It is a feature animated film project that is still in progress since 1981. Separate scenes of the film are available for viewing and have been screened at exhibitions dedicated to Norstein's work. For the purposes of this study *The Overcoat* will be studied only from the technical aspects of animation but where it is relevant conceptual and narrative approaches will be mentioned briefly. The reason being that the film (unfinished after more than 20 years) exemplifies his laborious stop-motion method.

3! Figure 2 shows a still from *The Overcoat* with the same building.

In *The Overcoat* the animator has encountered certain challenges and ambiguities. The animation reaches different depth of graphic and dramatic freedom. Norstein in his book *Snow on the Grass* "Even a trivial choice of particle size in the frame makes for a different look at the properties of the animation. Vague in the minds of the moments found support in a physically existing image. I repeat, cartoon physics rejects, rejects indeed, if it is placed, figuratively speaking, parallel to the animation." [Norstein. Y. (2002) Snow on the grass *Kinoart*] The mastered animation technique provokes many questions regarding the animation process itself. The scarf and the socks of the character appear exceptionally soft given that they are not real fabric. They are both made of foil. The scarf is made of individual pieces. The artist has made large sheets of textured paper. They are made to be easily painted with watercolour and gauche. The paint is easy to wash and to transform. In order to create movement, Norstein cuts away the necessary section before superimposing it on the top celluloid. With closer look the connection between the various pieces can be seen.

Figure [4]

In motion, however, the edges of the joints are hardly noticeable. The same principle applies to the socks and the character's body. The scenes from *The Overcoat* demonstrate limited use of foil instead the fragments of the animated footages are created mainly from paper pieces. Foil is only used in certain instances, one of them being the curtain. Norstein has used the foil based on his previous experiences, however he is not entirely satisfied with the result, as it did not quite match the graphic style of the other scenes [Norstein. Y. (2002) Snow on the grass *Kinoart*].

For a strong emotional effect, the film is shot on black background. A dark cloth was placed under the celluloid as a background while the textures to the foreground increase in light and detail, giving the scene more depth. Norstein explains that the foil has both some advantages and disadvantages. Depending on the particular artistic and technical task, foil may or may not be preferred over paper. Some types of foil do not hold paint and need to be carefully degreased before painted on. This makes the process rather slow and tedious. The foil is a very convenient material according to Norstein. It provides opaque surface, not letting any unwanted light pass through. It is also dense enough and easily bended, thus the effect of a weaving fold is easily

4 Figure 3 shows a demonstration of Norstein's paper puppet for the main character of the film *The Overcoat.*

achieved [Norstein. Y. (2002) Snow on the grass *Kinoart*].

With regards to motion, and because Norstein does not utilise the facilitating potential of the digital platform, technically it needs to be executed flawlessly. If the special movement of the rhythm is lost, the whole figure loses its integrity in the scene. This is the case particularly for technically complex movements such as the turning of the head from left to right and vice versa. In cases of such complex motion, Norstein occasionally uses a celluloid silhouette sheet and he fixes it with tape on the glass to mark the position of the next frame. Subsequently he places the cut out piece for the next frame. The body of the character is taken apart and reassembled again after the turn of position. If done precisely this method leaves virtually a smooth transition from frame to frame. This method gives a fairly realistic movement to the character. When the character Akaki moves his nose it gives the illusion that the whole nose is moving when I reality only one element of it is animated. The skull is a separate piece on its own while the eyes, the tip of the nose, the chin and the forehead are separate elements. They become one with the skull as they are assembled. The wrinkles are also a very important part of the moving person. Norstein admits that initially he did not imagine himself working in such detail but the action of the character has proved it necessary[Norstein. Y. (2002) Snow on the grass *Kinoart*]. For expressive purposes a separate layer for the wrinkles was used. The involvement of each element of the anatomy is felt in the final act. Almost none of the elements are fastened to the main body. Norstein animates by keeping the main body silhouette layer fixed, unless it needs to move, while he carefully adjusts the top celluloid layers with a pair of tweezers. He often leans on the circuit to avoid movement caused by minor shaking. All of this is the amount of work per layer of glass. If further depth of space is needed, he separates the different layers of celluloid on multiple levels of glass. For instance, the character Akaki writing on the table would be on one layer, while the bed, the blanket and the wall would each be on a separate layer.

Figure

Depending on framing and the desired expressive effect even the body parts of the character may be separated on different layers of glass. The distance between glass layers in this instance may vary between ten to twenty millimetres.

The candle flame in *The Overcoat,* like the candle flame in *Tale of Tales* was achieved by photographing a real flame and studying it's the behaviour. According to Norstein this technique is easier than it sounds. For the different phases he has observed a natural candle as it burns in still air and as he blows it out until the smoke disappears. For the phase where the candle is lit, he has made use of two little oblong white paper slices, which are added together creating the subtle illusion of flame movement. [Norstein. Y. (2002) Snow on the grass *Kinoart*]

To date *The Overcoat* is still in production because of the time-consuming animation process. Norstein's style and technical approach to paper cut-out stop-motion animation exemplifies extreme attention to detail in both movement and setting. His process is labour intensive, slow and highly meticulous, which sets him apart as an animator working independently to achieve remarkable results.

Memory, allegory and narrative approaches in the film *Tale of Tales*

Tale of Tales as described by Norstein himself is “an allegory using the resonant Russian image of a wolf cub adrift in a cold world” (Harrington: 1988) used to illustrate the ruthlessness of World War II. The film deals with a period dating from Norstein’s earliest childhood. Although inspired by childhood memories it is not a biography of the artist. *Tale of Tales* is comprised of different scenes that form short episodes within the film. The different episodes represent a collection of memories. As Norstein explains *Tale of Tales* is a “mix of micro histories, molecular episodes, metaphors” (Kitson: 50) that had been living inside him. The main character in the film is Volchok ('little wolf' in Russian) and it is through his point of view that most of the memories are expressed. .

Norstein describes *Tale of Tales* as rather experimental compared to his other films [Norstein. Y. (2002) Snow on the grass *Kinoart*]. This is due to the deviations from the original script and a more spontaneous execution of narrative. Norstein explains that on occasions his animation is not completed according to script. *The Fox and The Hare* and *Heron and Crane* as examples of a films working out accurately according to the script. On *Hedgehog in the Fog* he has effected minor changes, while *Tale of Tales* has changed considerably from its script in the process of filming. The film is said to have been, “shot as a live reaction to what is happening in it” [Norstein. Y. (2002) Snow on the grass *Kinoart*]. Each day of shooting has presented it with something different to reflect on. The change from original plan raises the issue on artistry. Norstein states, that “art is art because it takes away” [Norstein. Y. (2002) Snow on the grass *Kinoart*]. Otherwise there would only be the reality of the natural life. The deviation from the original plan is what makes the artwork unique and reflective of the conditions under which it was created. He also notes that a film dedicated to works of poetry is regarded as unproductive and expensive.

Tale of Tales is referred to by Giannalberto Bendazzi as “the ultimately enigmatic cryptic film” (Bendazzi: 2005). While this appears to be so, according to Norstein, the predominant theme on which *Tale of Tales* focuses is the destruction of families and the destruction of childhood. He “wanted to show that World War II was not only a war of defence of the fatherland, but a war for something spiritual, for the soul, and that when this happens a war really does take on a very high moral character” (Harrington: 1988). *Tale of Tales is*, as stated by Wells, “a personal and

often profound, statement of atavistic recollection, Norstein uses the animated form to recall primal and ancestral sources of human feeling and experience" (Wells, 1998, p 93). *Tale of Tales* is not constructed around a central plot conflict and does not follow a linear plot-line. Instead is structured in the form of a recollection of memories. Memories do not appear in chronological order, but as separate flashbacks, overlaying images of memorable moments. In *Tale of Tales* images of innocence and childhood are juxtaposed with images of war and violence, images of celebration are juxtaposed with images of tragic World War II loss. Different scenes representing different place and time vary in style. The wolf character, Volchok, is the only character to appear the same in all the different scenes featuring him. He is the only character to connect and move fluidly through the different worlds portrayed in the film.

The original idea of *Tale of Tales* was to be a film structured as a poem. *Tale of Tales* was one of Norstein's earlier ideas from before he had even created one of his earlier films *The Fox and The Hare*. During that period Norstein had undergone many changes in his personal life. He had left Marina Grove where he lived as a child and moved with his wife and children to Belyaevo. The house, which he refers to as the house of his childhood, had gradually been abandoned as all its residents had already taken their own way and left. He describes having felt a strong sense of depopulation during that period. On occasions he went there alone and took several single-frame shots. He describes the nostalgic feeling of looking at the bare plaster walls worn out from, rain, snow, wind and time, of the house where he spent his childhood. The yard had gone and he house frayed. The long life at this home was over and he could not return to it. The nostalgia of his childhood was what had inspired his future film, which was to begin with the moment of leaving home. Volchok was to represent the childhood before his departure as human. Before he leaves he wants to sit for a while and remember everyone who lived in that house [Norstein. Y. (2002) Snow on the grass *Kinoart*].

Tale of Tales is undeniably a highly symbolic piece. This study will not provide a complete analysis and a breakdown of all the different metaphors in the film but will rather focus on selected moments to illustrate how he creates visual symbolism. Significant use of metaphor is evident throughout *Tale of Tales* in many different forms including objects, characters and the interactions between them. In the case of this film, symbolism and metaphors are used to express nostalgia and childhood memories.

The image of the house is among the most important objects to be used symbolically. It appears in the prologue of the film, the scenes with the funerals, as well as the scenes showing the little

lonely Volchok.

Figure

The house is included in different seasons carrying different moods. The house illustrates Norstein's feeling of nostalgia towards the past. The feeling that this part of life is already over and remains only in his memory but he has sailed away. The house will remain abandoned and will succumb to the environmental weathering until there is nothing left. The theme of the house, Volchok, family and war are all stitched together to embody the main theme of childhood [Norstein. Y. (2002) Snow on the grass *Kinoart*].

The bridge is significant for the theme of childhood as it reflects on Yuri Norstein's own background. It symbolises what Norstein describes as an end to his childhood. One day, running around the scaffolding he fell and ruptured his intestines for which he was hospitalised. The scene is designed to capture the darkness of the infernal fumes of the train as they hide the sun, which makes its way through the crevices of the bridge. Like the bridge and the train, the grinder and the house refer to the memories from childhood. It is said that in time of death, man sees the light from afar and reaches towards it. In *Tale of Tales* the grinder comes to light from the door of the house and the little woof is shown moving towards the light and as he crosses to the other

side he walks out as a boy. Norstein explains that while he has not read Raymond Moody's book *Life after Death* and is not deliberately referring to the idea of illumination at death, the scene gives a feeling of childhood memory for him [Norstein. Y. (2002) Snow on the grass *Kinoart*].

He describes a long corridor with the sun making its way through the doorway. Communal hallways were dark with light barely covering the walls. The bright difference was seen as one walked through the dark corridor and reached the light coming from the yard. The light described by Norstein, gives one the strong urge to go out and find oneself in its warmth. The light is also associated with the voices of friends coming through the courtyard. It represents a whole new world, which Volchok has entered into [Norstein. Y. (2002) Snow on the grass *Kinoart*].

For *Tale of Tales* Norstein has combined the "familiarity of the language of live-action film (close-ups, lateral pans across space, dissolves, depth and perspective movement, 'invisible' editing etc.) with the language of animation (metamorphosis, condensation, synecdoche, symbol and metaphor etc.) to authenticate the images preserved by memory, defined by history, located only in the mind" (Wells, 1998, p93). In *Tale of Tales* Yuri Norstein makes use of real fire within his animated footage. They have photographed a natural fire and then printed the positive charges in the projector and the image through a semi-transparent mirror, placed in front of the lens at 45 degrees together with the rest of the scenery. Thus the fire is directly projected into the scenery. The brightness of the bonfire is well manifested in the complete darkness of the film frame.

Figure

The film is mainly monochromatic with little use of colour in some scenes. Scenes depicting a poet or a musician's lack of inspiration, as he faces a blank piece of paper, are predominantly monochromatic sepia tones. A greater variety of colours are used in the scenes where a child is eating apples in a park besides his parents. From the use of colour as well as the characters' modern clothing, one can conclude that the scenes are referring to a later possibly post war period. The wolf's older house with its windows still sealed is juxtaposed with colourful, shiny vehicles, clearly indicating the changing times. Scenes vary in visual style although they are all remarkable for their rhythm. They all share a beat, which connects them, the beat of the dancing couples, the girl skipping on the rope, the cradle, the pram and the wolf rocking on a treadle of an abandoned sewing machine.

In this chapter Yuri Norstein's highly meticulous and laborious process of paper-cut-out stop-motion animated films was studied. Although he has the ability to plan and rehearse the scenes, his process is significantly more time consuming than the digital 2D processes due to his strict adherence to analogue media. Despite the challenges of working with analogue media, and the advantages provided by the fast paced digital technology, he firmly follows his tradition, never utilising the digital medium as a facilitation tool. He believes that artistic expression to this day cannot truly be achieved with a computer. His non-linear narrative approach and the fact that he works independently in his studio, show his affinity with the genre of experimental animation. He is a renowned and highly influential animator, yet an outsider due to his choice of media.

3. ALEXANDR PETROV- FINE ART ANIMATION AND THE FACILITATING POTENTIOAL OF THE DIGITAL PLATFORM

This chapter will focus on the animation techniques utilized by the Russian animator Aleksandr Petrov. Selected examples from his body of work will be analysed from both the technical and conceptual point of view. In his work Petrov accesses fine art traditions and processes as well as the digital platform. He describes his paint-on-glass animation process as “like painting on a canvas” except that instead of exploring one subject within a still image he can explore “the possibility of finding multiple ideas” within the moving image. He describes the process of animation as “more dynamic than paintings on canvas” (Kenyon: 1998). It is this hybrid aspect of his working process that places him within the genre of experimental animation. In this regard, his works will be studied in the context of the debate on experimental animation as a valid form of art.

Petrov is from Yaroslav where he currently lives and works. He is a student of the famous animator Theodore Khitruk. Petrov is best known for his Oscar winning short animated film *The Old Man and the Sea* in 1999, based on the novel by Hemingway. The artist made his debut in 1989 as a screenwriter and director of the film based on a story by Andrei Platonov's *Cow*. Then there was his exploration of Dostoevsky‘s *The Dream of a Ridiculous Man*, and Russian mysticism in his film *Mermaid*. In 1990 and 1998, his films *The Cow* and *The Mermaid* respectively were nominated for an Academy Award. Other award winning films include the animated short *My Love* based on the novel by Ivan Shmelev. The 26 minutes of screening time were born within three and a half years’ worth of work. The film’s plot unfolds in the merchant Zamoskvoreche XIX century. Despite the fact that Russian animation is relatively inaccessible elsewhere and excluded from the record, *My Love* received popularity worldwide. All of the abovementioned works exemplify his excellence in both painting and animation, as well as his unique approach to novel adaptation. (Greater in depth focus will be given to the film *The Old Man and the Sea* as an example of Petrov’s animation technique.) The film *The Dream of a Ridiculous Man* will be studied as an example of Petrov’s figurative, and to an extent, experimental approach to narrative. Petrov’s *The Dream of a Ridiculous Man* also exemplifies his unique approach to novel adaptation into animated film.

The term experimental art is characterized by the “desire to transgress social boundaries and convention, with the drive to question and reinvent” (R. Gibson, 2010, p7). In the context of

animation, films have been typically termed experimental when they are opposing the contemporary CGI, traditional puppet and model animation and orthodox cel animation, both thematically and visually by adopting a more personal approach to the work and customized technique to achieve a highly individualized look. It is worth noting however, that the view on CGI animation is changing as animators have taken a hybrid approach and combining CGI with other media. Such an example is Chris Landreth's *Ryan,* where the animator has combined 2D digital and traditional animation and incorporated it into 3D animation that distinguishes it from the mainstream. These kinds of films often embrace an Avant-grade approach or the personal approach to fine art. Gibson (2010) states that experimental animation as a term has become associated non-objective, non-linear work, which some claim to be the purest form of animation. This however misrepresents a whole range of work that is not necessarily "highly progressive in its experimentation, but merely of a different order from classical or traditional 2D or 3D animation" (R. Gibson, 2010, p7). Essentially, experimental animation is the kind of animation that creates a personal statement or vision not possible in a big studio context or popular entertainment field. Rather than being associated with the idea of nonlinear and non-objective form of experimental animation, Petrov's work exemplifies the more personal and customized approach.

Petrov is known as the unique author who literally paints novels with his hands. He bases his films on well know novels, which have been an inspiration to him. The effect of this method is difficult to convey in words, but the "fluidity", the transformation of one picture into another is mesmerizing. This method, known as revived painting, is highly time-consuming (Aleksandr Petrov-Making of P1). In a similar way, Canadian animator Caroline Leaf (noted for her stop-motion paint-on-glass and sand animation) highlights the "core principle of transformation in animation as one scene evolves into another" in a number of her animations (R. Gibson, 2010, p7). Petrov's animated films are created using a paint-on-glass under-the-camera animation technique. All the frames are hand painted and photographed before they are finally exported as completed films. In short, paint-on-glass animation refers to any technique for making animated films by pushing slow-drying paints or other wet medium from frame to frame on a platform under the camera. The artwork is continuously destroyed upon making new frames, thus the animator is not able to rehearse or refine the animation afterwards. Also due to other issues such as the stacking up of layers with wet paint, as well as lighting angles, the animator has to take both creative and technical decisions for each shot. This technique is usually undertaken by an individual artist or an animator rather than by a production studio using factory-like processes (Aleksandr Petrov-Making

of P1).

In Petrov's animated films, the process of painting on glass is like painting on a canvas. His work deals with subjects like portraits, landscapes, and historical events in a realistic style. Petrov believes that painting a single painting on canvas, limits the possibilities of exploring a variety of themes. Animation on the other hand allows the possibility of finding multiple ideas; therefore, the themes grow "larger, more detailed, and are more dynamic than paintings on canvas" (Kenyon: 1998).

His artistic style has been characterized as Romantic Realism, which in aesthetic terms refers to art, which combines elements from both realism and romanticism. All elements of his paintings, including people, animals and landscapes are highly realistically portrayed, yet at the same time he borrows from impressionist painters' traditions. When he is working on an animation, just like he would for a painting, he lets out his "energy and feelings in the colors" (Alyson Carty; 2000). With the animation, he is searching to express ideas, but also tries to find the harmony of life. The characters' inner thoughts and dreams are depicted in many of his films. His adaptation of Dostoyevsky's *The Dream of a Ridiculous Man* exemplifies this means of artistic expression.

Dostoyevsky's *The Dream of a Ridiculous Man* is a monologue exploring the ideas of a man, which are reflected in a dream. The ridiculous man is one who is more morally aware than the rest of the society he lives in. Although he has higher comprehension of life, he is misunderstood and regarded as foolish. The story line is fairly simple and concise. A lonely man who believes he no longer cares about this world decides to kill himself but postpones his suicide because he is disturbed by the fact that he mistreated a little girl. He falls asleep on the train and has a dream in which he does kill himself and subsequently is transported to a place that is physically like earth but morally a paradise (R. Phillips; 1975:355). In his dream he morally corrupts the people he encounters. He is awakened with grief but decides to spend his life preaching the truth revealed to him in his dream. The story line is not concerned with the actual events taking place but rather the inner journey, thoughts and feelings of the protagonist. According to Roger W. Phillips (1975) the story shows a basic struggle between logic and a man's natural instinct for the whimsical. He has made use of the metaphysical to criticise a society of morally deficient people burdened with suffering and to show how happiness can be found through pure love, which at the same time cannot be attained by all. The philosophical nature of the novel creates a great challenge for any animator/director who wishes to produce an adaptation, as animating thoughts and feelings is far

more subjective than animating actions. Although Petrov himself is not the author who raises the question through the story, it is at the same time made visual within the film. He supplements the existing text with his own visual imagination. His adaptation is unique and both technically and conceptually and challenges the status quo. It is these aspects that distinguishes his work as experimental.

The film begins with a scene in the dark train. The voice of the narrator is heard while dimmed light reveals faces of sleeping passengers, most of whom are children. The voice of the 'ridiculous man' describes the dream he recalls and the inner beauty of the people he encountered, although at this point of the narrative the man has not yet fallen asleep. Visually the notion of simple linear narrative is broken and the film takes on the form of one long dream sequence with a surreal edge. Petrov illustrates the thoughts of the ridiculous man by depicting him sitting quietly by the window of the train. His facial expressions suggest that he is lost in thought while disconnected from his surroundings. Random semi-transparent flashes of people dancing and burning appear over his face as the voice in the background is describing the dream and searching for answers to many questions. Much like memories and thoughts, they are

Figure

disorganised and incomplete. This method of illustrating the thoughts of the character is frequently used by Petrov in many of his films. After meditating over his thoughts, the man points a gun to

his head and the scene changes smoothly - as one painting gradually transforms into another. The following scene is the dark street where the unnamed man encounters the girl. This is where the man's revelation begins in the novel. The man ignores the little girl's cries for help but that leads him to analysing his feelings. He realises that if he feels pain for the girl this means he is still human. Knowing this he also understands that should he kill himself this world would stop existing for him. This notion however only leads to further confusion. He finds truth only through his inspirational dream. When the ridiculous man arrived at this new Earth he found love emanating from everything including the plants, the animals, the sea, and the people. This concept of ubiquitous love was so foreign to him that he could not believe it at first (R. Phillips, 1975: 363). In Petrov's adaptation, after meeting the girl, the man returns home where he is shown with the gun for the second time in the film. This again indicates the use of non-linear narrative in the film. In the film it is not very clear where reality ends and where the dream and memory begin. The other Earth is painted with warm light colours. As the ridiculous man enters this world, a little girl heals his wound by placing her hand on it. Visually and symbolically this is the first depiction of the ideal love the man witnessed in the other world. Critics argue that Petrov's portrayal of the horrors of burning hell is more convincing based on the common perceptions of hell, than his interpretation of paradise, which is the "typical Renaissance world of golden light and picturesque nudes" (Filmwell; 2012). From an artistic point of view however, this only shows Petrov's strong influence from fine art traditions. Furthermore, his use of fine art concepts and traditions is evident in examples of surreal moments in the film. It is a common characteristic of the surrealist

Figure

movement of objects to be depicted in either much larger or smaller scale to evoke a disturbing dream-like scene. Artworks by surrealists such as Giorgio De Chirco have adopted this approach, which is evident in paintings such as *Turin Spring* where the building appears disproportionally small in relation to the rest of the objects. As the man remembers the girl before falling asleep, a little figure, resembling her, appears around his candlestick. The candlestick becomes a symbol of the street lamp under which the girl was sitting. Further examples include a miniature baby the man holds in his hand before the baby is transformed into a bird and flies away. As this bird flies away the fingers of the hand transform into tree stems leading to the sky.

Alongside the reference to surrealism, the narrative approach adopted by Petrov is highly symbolic. The mask worn by the ridiculous man as well as the gun with which he is imagining his suicide, appear several times in the film. The mask is also worn by others in the real world. Dostoyevsky describes how "simple jest may have introduced lies to the prelapsarian people[5]" (Filmwell; 2012).

[5] Characteristic of the time before the Fall of Man

In Petrov's adaptation the mask symbolically represents the lies and deceits introduced to the people by the ridiculous man. At first the mask is received with amusement, which later on escalates to arguments and violence. Here Petrov uses visual metaphors to convey meaning figuratively.

The man's imagined suicide is emphasized on a number of times throughout the film. After corrupting the prelapsarian people and causing chaos in their land, the man is seen holding a miniature version of himself. It resembles a stone sculpture.

Figure

The miniature man mocks him by pointing his head after which he melts and scatters on the ground like dry sand. This dream like reality combined with the rescaled objects is reminiscent of the works by surrealist painters. Among many of the famous works, Salvador Dali's *Persistence of Memory* 1931 is an iconic example of surrealist paradigms.

According to film critics, Petrov's scenes sometimes "meander and lack certain clarity and focus" (Filmwell; 2012). While in mainstream film and animation this may be regarded a flaw, on the contrary it fits with the common characteristic within experimental animation of non-linear narrative. Critics however, argue that this is a consequence of the fact that his methods lack the safeguards of studio animation where each scene is laid out and timed with major beats first then filled out with in-between frames (Filmwell; 2012).

Without a doubt the technique of Petrov lacks  the safeguards of large animation studio, as mentioned earlier, However, according to Gibson (2010) the essence of experimental animation lies in the personal statement or vision "not-

possible in a big studio context or within the field of popular entertainment" (Gibson, 2010, p7).

The animation technique provides opportunities for variations on a subject. Petrov prefers working with "living ideas, changing the details of the subject, and making transformations during the filming process" (Aleksandr Petrov-Making of P1). He keeps to a very strict art direction, knowing where he needs to arrive from storyboarding to the final project.

The only specific preference he has is for the paints to be transparent glaze paints in order for light to pass through the glass layer. Paint and whitewash do not pass light but only reflect it, making them unsuitable because he uses lamps which light the glass layer from below. He limits the colours from three to a maximum of six. The opacity of the paints gives variations in tone as the light from below passes through the paint as it is shown on the right.

His paintings are called" painting on glass "and" beautiful animation "and" revived painting, "- says Petrov. (Aleksandr Petrov-Making of P1). Unlike traditional animation "where characters scenery, backgrounds are made by different painters, materials, places, are brought at a given time for shooting, here all occurs simultaneously" (Aleksandr Petrov-Making of P1). There is a scenery installation, where the character is drawn in the same scenery. It is initially "zero shot". Paints, which are used for this technique, are usually oil paints. He uses a variety of different tools for his paintings, which include, rubbers brushes, sticks but he primarily uses his palms and fingers. Sometimes, he says, it takes him hours if not up to a day to complete just a single, (usually the first shot). The animation process is itself significant to him as an artist - with animation he claims to be searching to express ideas, and also aims to find the harmony of life. This harmony he finds during the filming process with mistakes and successes. Step by step, he tries to project the "beauty, the force and emotions within the animated image" (Aleksandr Petrov-Making of P1).

This approach of using oil paints, manipulated by a variety of tools relates to early experimental film makers, most notably the painter and animator, Walter Ruttmann. During the early 1920, Ruttmann was among the first to experiment with similar forms of film expression. Ruttmann's career as a painter begun before World War 1. He suffered both physically and emotionally after his military service at the Russian front. By the late 1918 he was on a journey to spiritual recovery and had "renounced painting of still images in favour of animating abstract imagery that could develop in space and time, which he saw as the art form of the future" (Moritz; 1991). Like Petrov, Ruttmann's animation technique of his *Opus No. 1* involved painting on glass plates beneath an

animation camera, capturing each brush stroke or alternation. Later on he had introduced geometric cut-out shapes on separate layers of glass, which added to his abstract artistic expression (Moritz; 1991).

Earlier on in his career, Petrov explains, he started by drawing on the glass itself. The glass layers were large and heavy. At this stage he had not yet drawn prefabricated movement phases. Each frame was shot in a single instance. At the end of the glass fragment simply washed from the paint. After the end of the film he had one or two glasses with the last frame. Now, he explains, the process is about the same, except that he uses transparent plastic, which simplifies the work, as it is lighter and easier to move around the frame (Aleksandr Petrov-Making of P1).

Similarly to Norstein, Petrov works with traditional media under the camera, what sets the two of them apart is that unlike Norstein, Petrov utilises the digital platform as a facilitating tool, since his hand-painted frames are photographed, stored and edited using digital technology (Aleksandr Petrov-Making of P1). The digital technology in his instance is not used as a medium.

Before animating he films he sketches the movement of the characters. During the sketching process, intermediate phases are fixed as a reference for the movement. The image on the right shows a snapshot of his reference images in his studio. Shooting and drawing occur practically simultaneously. To create prospective movement he "destroys the drawn phase". He then restores the picture, which was altered when movement of character was created. "All animation consists of creation and destruction of the same picture" Those complexities he says are "advantages of this picturesque method". (Aleksandr Petrov-Making of P1)

Petrov believes the beauty, which arises from blending the character movement into the background, cannot be achieved using another method. In his opinion neither celluloid nor a certain setting can give the seamlessness, which arises from the picturesque aesthetic of animation. The method is also good for the creation and expression of sharp movements and fast

panoramas as no details are required-the paint blends from one shape to another. The image below shows Aleksandr Petrov in his studio as he paints on the glass a scene from *My Love*, while the cinematographer is operating the camera.

Aleksandr Petrov works with a small team of actors he knows personally. They are not always professional and quite often his family or friends. For example in the film *The Cow*, he has chosen his son Dimitri for the role of the child. For *Dream of a Ridiculous Man*, the hero was his cameraman Sergei Rechetnikov and in *The Mermaid*, he has used some people from his neighbourhood and again, his son Dimitri. He paints their movements and appearance. It is important for him to select the actors who are able to express the needed personality for the film.

While it is not necessary for small details such as accurate facial features and clothing accessories to be drawn, he keeps accurate consistency with the overall appearance of the characters. Any small changes can transform one character into a completely different person. For the movement itself it is enough to make expressional dabs, creating this dynamical movement. It is self-reflexive. Expression decorates movement sometimes he examines his pictures on freeze frames. The picture on the left shows a sequence of paintings of the same character. While the face is not painted in great detail, the turning head clearly belongs to the same person.

To create realistic movement for the characters of his films he paints using pre-recorded video footage. He does not rotoscope but uses them as reference. Rotoscoping refers to a technique of tracing key frames over video

frames where movement sequences or patterns are captured from a live subject (Aleksandr Petrov-Making of P1).

As shown in the photo below, the actor is being filmed as he enacts the movements of the fisherman in boat from the film *The Old Man and the Sea*. This is from the battle between the old fisherman and the marlin, a key moment of the novel.

The greatest challenge Aleksandr Petrov has faced in completing *The Old Man and the Sea* has been animating the boat in the sea scene (Aleksandr Petrov-Making of P1). To begin with, in his part of the word he hasn't been able to find a good example of a boat in water to film. As can be seen from the film *The Old Man and the Sea,* he has succeeded in creating a highly vivid scene of an elderly man fighting the large marlin with all his strength.

In order to achieve the desired movement, which is both realistic and expressive of the struggle, Petrov and his team constructed a small scale boat from plaster. The design of boat is an accurate representation of the boat to be painted.

Alongside the boat they also created the large fish proportional in relation to what it would look like in the film. The models were then used by the team to film the reference of the desired movements. Petrov explains in his interview that they manually maneuvered the boat, imitating the way it would be moved in the rough sea.

In this chapter the process of making animated films by manipulating wet media under the camera, known as paint-on-glass animation, was considered with the focus of Aleksandr Petrov's body of work. Without the ability to rehearse and alter the animation as opposed to digital 2D animation, Aleksandr Petrov's process is more fluid and painstaking. Despite the fact that this process is challenging and time consuming it offers great possibility for artistic expression and interpretation. It is also clear that Petrov's hybrid approach - his accessing of traditional fine art drawing and painting processes and stop-motion animation techniques – locates him firmly within the genre of experimental film. Petrov's work is a great example of the opportunities the digital technology provides for the facilitation of old traditional media and artistic expression.

4. CONTEXTUALISATION OF PRACTICE-BASED COMPONENT: A discussion of the candidate's animated shorts *Set me Free* and *The Ever-Lasting and the Ever-Changing* within the context of the textual research.

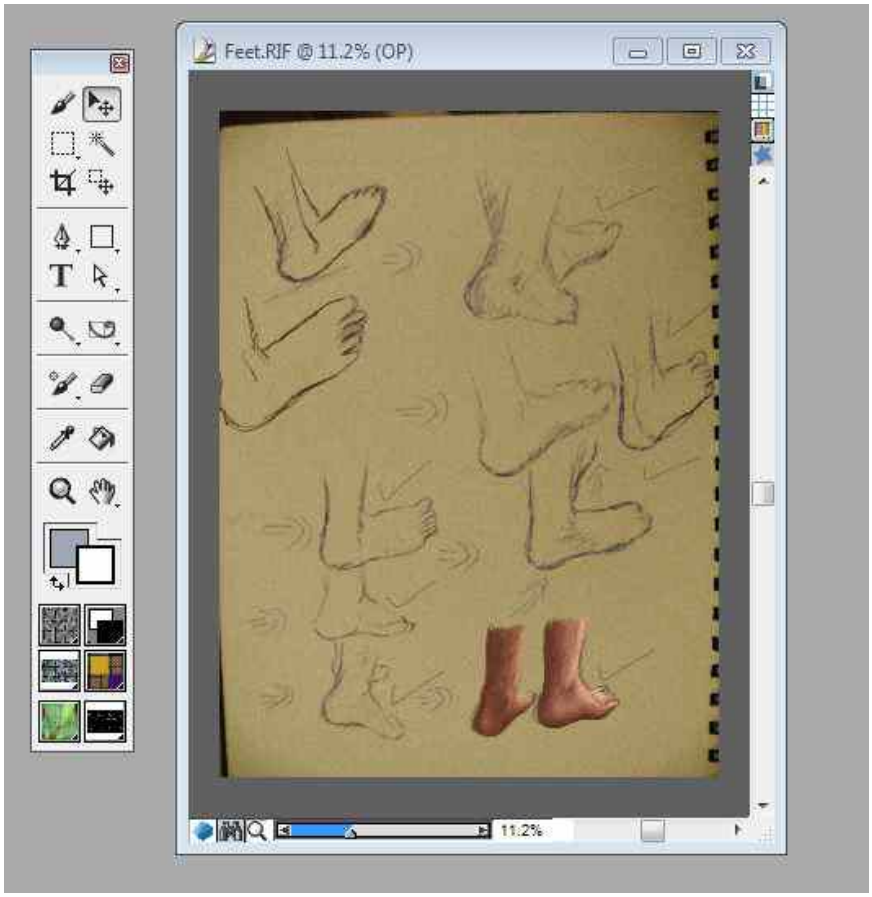
This chapter will focus in detail on the traditional and digital techniques utilized by the candidate, as well as their relevance within the context of new media and their reflection on the candidate's theoretical research. This is done through analysis of the technical methods applied in the two animations produced by the candidate. The various ways in which the candidate accesses traditional animation techniques on the digital platform is also considered. Where it is relevant, the candidate's techniques will be compared and contrasted to the techniques of the studied animators with main focus on Aleksandr Petrov and Yuri Norstein.

Set Me Free

The first animated film by the candidate "*Set Me Free*" is entirely digitally created. In other words no elements from the film are created outside of the digital platform. Despite it being a digital film, reference to earlier animation tradition is made on a number of different levels. What separates its animation process from other digital animation methods, such as 'tweened' or digital puppet created on the *Adobe Flash* or *After Effects* platforms, is that it is entirely drawn by hand and no programing method is applied to create space or movement. Furthermore the images are drawn by hand using a graphics pen and the creative software application- *Corel Painter X* that simulates the quality and experience of real artists' materials. The images are thus computer generated and yet the drawing process is similar to drawing on paper with any given material. Similar to paper cut out, stop-motion animation processes, the animation's components are separate layers of digital drawings, used to create a sequence of frames. The way this process differs from paper cut out stop-motion is that the drawings are not tangible objects and frames are created directly on the software without the involvement of a camera. Drawing layers are easily reused and duplicated. A detailed analysis of the various digital methods will be provided to illustrate how traditional animation methods are applied and echoed in the new media.

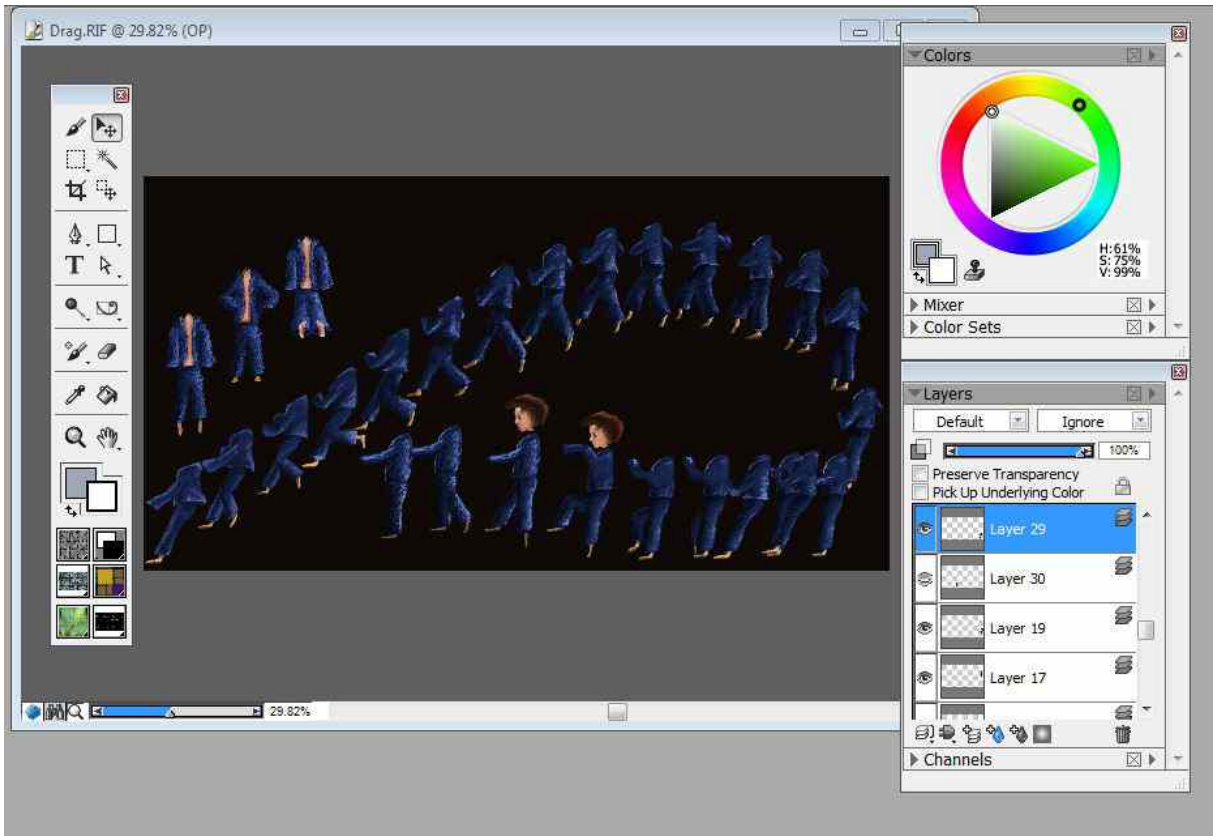
Digital graphics applications such as *Adobe Photoshop, Sketchbook Pro* and *Corel Painter*, fall into the category of authoring software. By definition authoring software refers to "a computer program designed for creating multimedia and hypertext documents and presentations"

(Dictionary, 2016). This means that such program has imbedded in itself knowledge of programming, and therefore could be used by a computer literate individual without any experience in coding and assembler skills. The program is fairly easy to use, thus making it more accessible. Artists and animators utilizing this type of software can digitally apply their creative painting and animation skills much like any traditional analogue medium. *Corel Painter X* offers a great variety of tools simulating traditional drawing and painting equipment - including oil and acrylic paints, pastels, pencils, pens and various inks. The grain, thickness and opacity of the stroke can be adjusted by the software, while depending on the model of the pen, limited pressure sensitivity may be made available. *Corel Painter X* also offers various canvas and paper textures to help create a realistic simulation. For the purposes of animation and digital drawing, the software enables either a single image document to be created with multiple or no layers, or a frame stack file with multiple frames and layers. The transparency of every image can vary from 0 to 100% opacity. Colour correction and various effects filters are available however they cannot be applied automatically to a frame stack file, but individual frames can be manipulated separately. This briefly summarizes the set of tools available on the digital software. The study of the candidate's application of the available digital tools, is to be contributed to the discussion regarding the relevance and adaptations of traditional methods into the digital platform. The analysis aims to illustrate that in fact traditions are not obsolete even with the convenience of the digital medium.



In the first stages of production, the candidate has studied movement both from life and from various live footages. Key moments of every movement are sketched on paper before they are drawn digitally for the final animation. The image on the left shows the initial drawing process. It is a screenshot of Corel Painter with some of its digital tools visible on the

left. The file on the right is a digital document consisting of different layers. The underlying layer in this instance is a digital photograph of the sketch pad imported onto the software. The coloured feet on the bottom right are digitally drawn on a separate layer. The idea of juxtaposing the initial and digital drawing is to compare them and achieve greater accuracy in movement. Once all frames are completed, the feet are saved as separate layers which are reusable and can be scaled and multiplied as many times as needed. Further examination of movement is provided by the following image below.



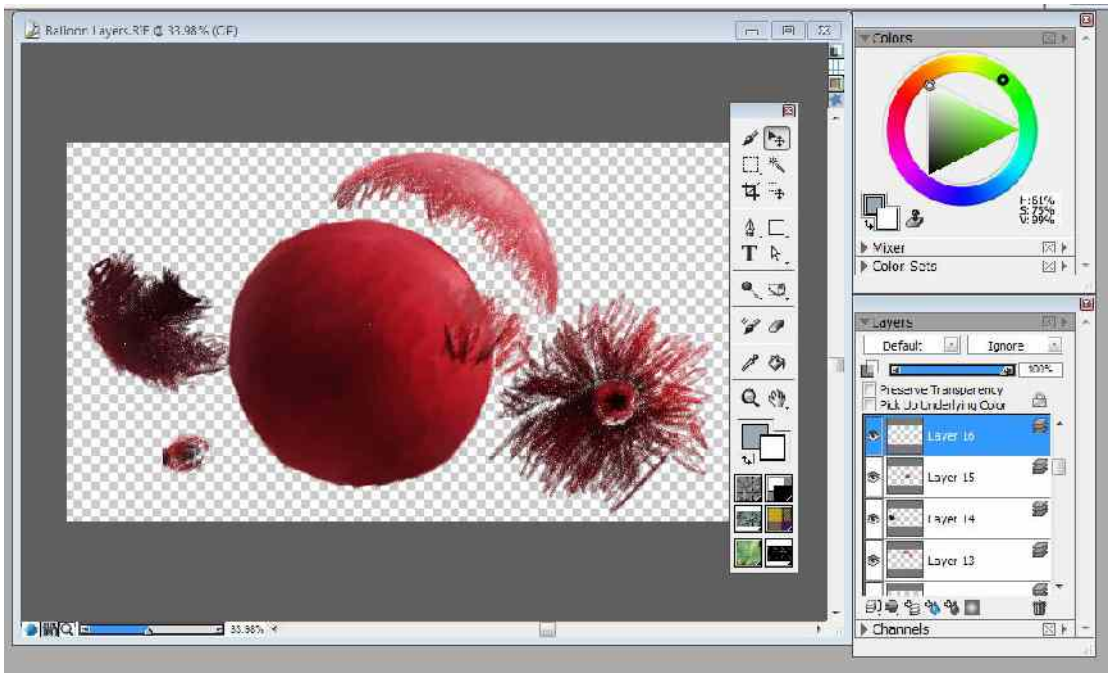
Figure

This is another screenshot of a Corel Painter file displaying complete sequence of movement. The character's body is drawn in every pose needed to illustrate the entire movement. As with paper cut out puppets, the digital drawings become separate objects, which can be placed where they are needed in the given frame. The one advantage is that they can be scaled and duplicated. The layer's window is visible on the bottom left, indicating with blue which layer is selected. The main animation principle is highly similar to paper cut out stop-motion. In the case of stop-motion, multiple glass layers are placed over the background, while the paper puppets are moved and changed on the various glass layers to compose each frame, which is then to be

photographed. In the digital method, the background is applied to every frame, while the digital puppets are moved and replaced on every frame to create movement. The interactive virtual screen as stated by Manovich “already acts as Avant-Grade director” (Manovic, 2001:207) as the principles of the Avant-Grade are embedded in the software and can be replicated or simulated by the user.

With regards to the drawing process of each puppet, the digital medium has further advantages. Before any animated clip is completed, the animator has the option of creating a test movie file to which additional frames can be added at any place and any point in time. The frame rate at which the movie is played can also be adjusted. In *Set Me Free* all movements of the character are drawn with the help of the given technology. For every sequence of looping movement the candidate has begun with only four well drawn body postures. The goal is to have a rough movement completed with a limited number of frames. The final movement is gradually built by carefully adding the missing frames in between. The simple method of achieving that goal is to have two transparent frames and draw the additional frame in between. Initially every frame is an opaque silhouette shape. The surface is later drawn individually on every frame for stylistic purposes. Pencil marks give artistic appeal to the film, relating it to earlier tradition, as well as providing it with an illusion of three-dimensionality.

All efforts of drawing three dimensional figures are not enough to create a natural sense of three-dimensionality. Furthermore each object is divided in several parts, drawn on separate layers to provide them with individual movement. This technique is most evident when the parts making up the red balloon are examined. Below is a screenshot from the different balloon layers open in *Corel Painter X*. The window on the left displays the separate balloon parts.



Figure

The round red shape is the main body of the balloon and the other smaller parts are the details on its surface. Multiple layers alone do not give the impression of an air inflated object. This illusion is largely dependent on movement. If all parts should move at the same speed, and rotate to the same degree, the balloon will always appear rather flat and heavy. The essential trick is to move and rotate the bottom layer slower. This is done by rotation of the shape to a lesser degree. The other layers are rotated to a greater degree thus moving faster. It is important to maintain consistency throughout every frame. Once the sequence is completed in every frame, a blur tool is used to blend the different parts into one complete body.

In the candidate's animation alternation of bright light and darkness is evident in a number of scenes. In the one reoccurring scene the character switches off a lamp by pulling its string. In the other scene where prominent lighting is used is where the train approaches the character, disappears in bright light and reappears moving away from the scene. In all instances a glowing tool is used to draw the impression of bright light. This tool works in the same principle as the rest of the brush tools as its size and brightness is adjustable and it is controlled by hand. For the scenes moving from darkness to light, the animation method is fairly simple as a larger sphere of glow is added to each frame. Where the scenes move from light to darkness the same technique is applied, but the sequence of images later has to be reversed. In this sense the digital animation method differs from traditional stop-motion where light bulbs would be used to provide a light source.

The digital platform comes with many advantages, which overall make animation less time consuming and more efficient. It is needless to say however that it does come with some disadvantages. The 2D digital software does not provide three-dimensional space. In the case of paper cut out stop-motion, where existing drawings are layered on multiple glass levels, the camera can be moved in different directions to create movement through space. It can be moved across, inwards or outwards. The positioning of the images as well as the distance between the glass layers, create natural depth. Using 2D digital software the illusion of depth needs to be manually created by the animator. The movement through space and the illusion of depth can only be achieved through careful calculation and understanding of how objects change their size and coordinates in appearance. For example objects in the foreground will appear larger and will be moving across faster. The further an object is to the background the smaller it will appear to be. The closer it is to the foreground the larger it will appear and in the case of movement the faster it will appear to move. Where the animator has mini version of a tangible reality, a realistic movement through space can be achieved without additional geometric calculations.

The greatest challenge faced by the candidate with the digital animation is creation of depth using a two dimensional medium. The achievement of depth is most evident in the train sequence as the two images below illustrate. The first still shows the first frame of the sequence while the second still shows a frame of the sequence as it progresses. As opposed to using a zoom, the candidate has shifted the position of all layers in order to create depth of space. The scene consists of a black background and 12 layers to be animated separately. The ground is further divided into three parts which are to increase in size at their own rate.

Each layer is animated separately, after it is completed the file is duplicated and the following layer is introduced. This is done as a precaution since all changes made to a frame are automatically saved before moving on to the next frame. At that point any errors cannot be

undone. Each object takes its own course and increase in size with every frame. Merely changing the size and position is not enough. Additional drawing of the railway and blending of the edges on the ground is necessary for the finished product. The end result is achieved after 49 frame stack files each consisting of 80 frames.

The final clips are all exported as *QuickTime* movies using animation compressor. All final editing is done in *Final Cut Pro*. Sound effect is added to the film after all video editing is completed. The sound editing presented itself with various unforeseen challenges. In order for a preview of the animation to be displayed, the video source inevitably needed to be rendered. Rendering did allow for a preview of the combined video and audio, however, the quality of the images was significantly compromised. The best solution to this problem was to avoid rendering altogether and instead mark a dot on both video and audio timeline to ensure movement and sound are properly aligned. Although entirely digitally created the end result reveals each individual digital brush stroke made by the artist and thus separating it from the notion of mechanical production.

In conclusion the animated film *Set Me Free* is an example of digital animation relying heavily on the knowledge of traditional painting and drawing both technically and aesthetically. This form of digital animation is fundamentally based on traditional hand-drawn, frame-by-frame animation while simultaneously entirely digitally facilitated. As a form of art it falls within the wide spectrum of digital art as all work is produced with the use of digital technology, it is stored on digital format and it is meant to be watched with the use of digital technology. Additionally the film is an example of the way the digital platform has revolutionised independent animation. Before the digital revolution animation production would have necessitated the "division of labour and specialized craft skills" (Pilling: 1997) as for example inbetweeners would have been employed to work exclusively in filling the frames in between keyframes to create smooth movement. Before the digital revolution significant storage space would have been required as well. The digital medium does not nullify the need of skilled animation team, however it has given the individual access to interactive technology giving amateur animators and students the possibility to produce a short film almost alone and single-handed.

The Everlasting and the Ever-Changing

In her second film *"The Everlasting and the Ever-Changing"* the candidate has made use of

multiple techniques, both digital and traditional, which are combined to help express the theme of the film. The theme of the film itself deals with the significance of fine art traditions within the contemporary digital era. The plot and narrative approaches will be studied in greater detail in this chapter. The primary stylistic and technical influence for this film is Aleksandr Petrov with his oil-on-glass stop-motion technique. A detailed documentation of the method will illustrate how it differs and relates to Petrov's techniques and animation style as well as fine art traditions.

In comparison to Aleksandr Petrov's studio, the candidate's setting is minimal. To begin with, all tools used for the stop-motion part of the film are a light box, a canvas, plastic sheets, paint, a Nikon digital camera and *Dragon Stop-motion* software for the processing of the images. The idea behind the canvas is to emphasize many of the core ideas suggested by the title itself. That of being an ever-changing and yet ever-lasting artwork. The canvas is placed on top of the light box as opposed to having a layer of glass as a foundation to paint on. With the exception of the earliest experimentation, the paint is not directly applied to the canvas, but on a plastic sheet over the canvas. The camera is secured directly above the canvas as is shown on the following image.

Figure

The grain of the canvas is used for the self-reflexive qualities it offers to the film, as it is a painted animation challenging the painting tradition itself. Thus the canvas takes on the role of a passive but essential character rather than remaining as a simple background. It needs to be stressed that a number of technical and stylistic problems were presented with having the canvas

as a background. The first and most obvious one is the painting process itself. Unlike the glass, the canvas does not offer the smooth and non-porous surface. The canvas heats up from the light, letting the paint dry faster than anticipated and thus making it increasingly difficult to manipulate. In this instance turpentine is of no use as it evaporates too fast, leaving a dirty spot, without actually cleaning the excess paint. The first experiments were done straight on a canvas primed with gesso and PVA (paramount acrylic paint). The process was resource and time consuming but ineffective. From there it was concluded that the painting platform had to be a smooth and non-porous surface. The glass would have been the ideal option as far as the painting technique is concerned however it would have meant that the film's illusion would have lost its credibility. A layer of glass, no matter how thin it may be, is too thick and hard, which creates a gap between the paint and the canvas. This effect can be used to one's advantage if an illusion of depth is desired. However, it shows that the paint is clearly separated from the canvas. A thin layer of plastic was the second best option. The advantages of the plastic are that it is thin and flexible, adopting the relief and texture of the canvas. The main disadvantage on the other hand is that it is easily dissolved by the turpentine. Preferably the plastic has to be thicker and turpentine needs to be avoided. Furthermore plastic needs to be very tightly secured to the canvas as it moves very easily. When it comes to erasing the previous frame, the unwanted paint is removed with cotton wool and the extra bit is painted afterwards. It is crucial that no image still to undergo change is allowed to dry. If it should dry, removing it is by all means possible, but the removal stretches that part of the plastic and it is no longer of good quality.

The other main problem with the canvas is its stylistic appeal. The canvas, being a two dimensional surface, gives a restrictive two dimensional look to the film as a whole. As a result frames and movement from different shots, have to be composed to work well on that surface. For example a wide shot is preferably photographed from a further distance to decrease the size of the grain in the canvas. A close up would have a larger grain visible but the movement from various shots also needs to be taken into consideration. Stop-motion needs to be done under a constant light if flickering effect is not desired. In this case the light source is from the light box itself. Being an artificial lighting, it has a yellow hue to it. The canvas is not pure white and so it appears to further saturate the yellow. Working out the ideal white balance is a trial and error exercise and when the desired balance is adjusted, it is digitally locked on *Dragon Stop-motion*. The primary and only light source for animation is from the light box itself. As it lightens the canvas from below, the true colour of the paint applied is not distinguishable. The candidate's choice of colour for the entire hand-painted part of the film was raw umber, both for practical

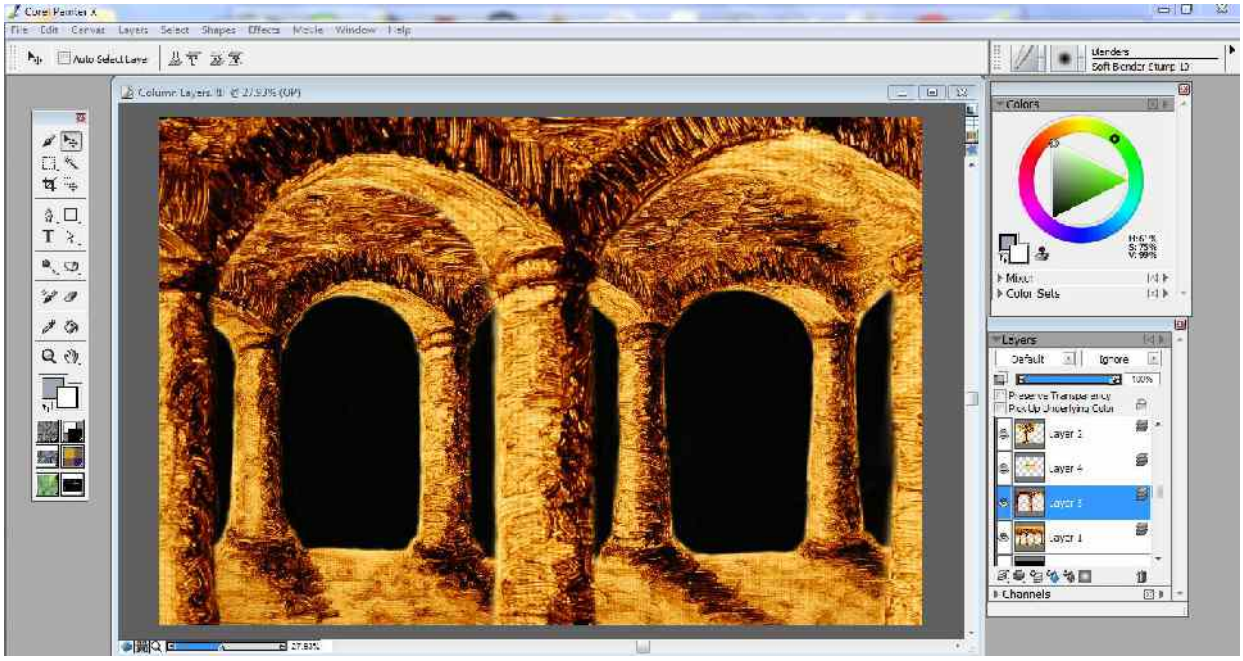
and stylistic purposes. Raw umber, due to its warm tone, was not affected by the limitation of light and the colour appears as realistic as possible. The second reason for this colour is that it gives a good variety of monochromatic tones, allowing the film to have vintage look to it for the parts where reference to old tradition was being made. During most of the process, the paint is not mixed with turpentine or linseed oil. Small amounts of linseed oil work well for thinning the paint and prolonging the drying period. It was however discovered that linseed oil has its disadvantage when applied to plastic. Unlike the canvas, the plastic does not absorb any of the oil. When the paint, mixed with linseed oil is initially applied with a paint brush on the plastic, the character of the brush mark is still visible. Within a few second however, the linseed begins to stick together, forming a smooth opaque blob. Ideally paint was at its best quality when it was used freshly out of the tube or mixed with very little linseed oil which was to be previously thinned with turpentine. Turpentine was mainly used for cleaning.

All painted images were captured with a Nikon D40 digital camera, which was connected to the computer and given command through Dragon Stop-motion. The screenshot below shows an example of the program, its functions and timeline.

Figure

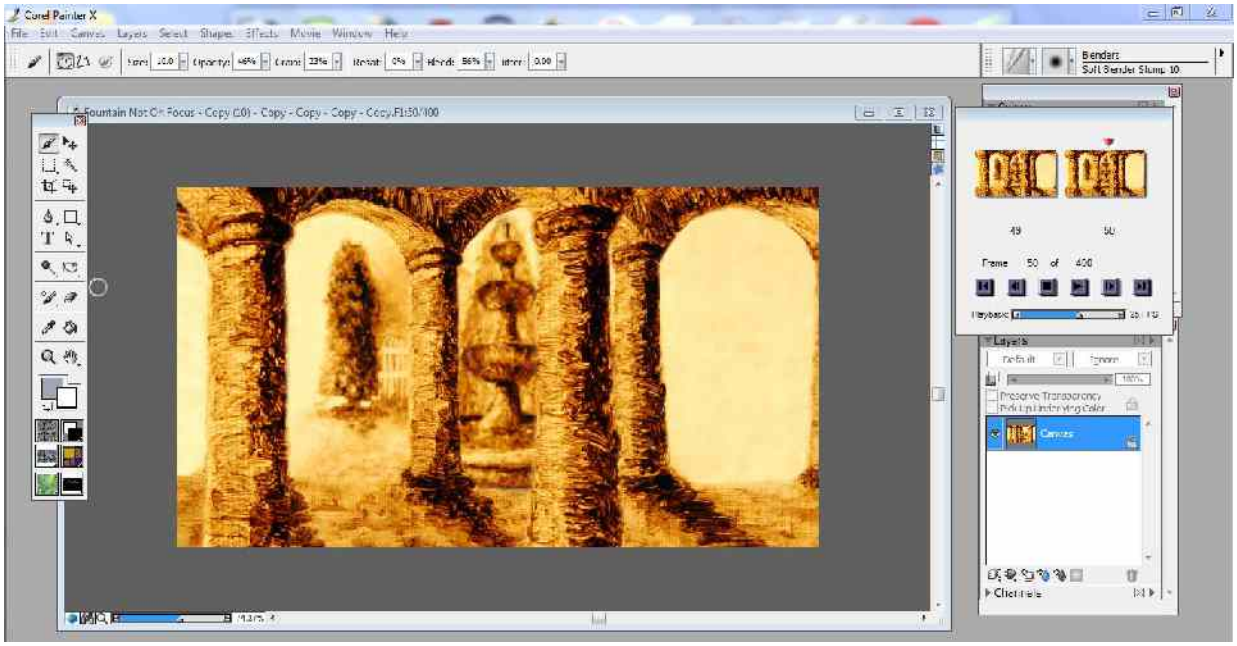
The camera used does not have the option of displaying a live view on the software, so test shot of every frame painted had to be taken prior to capturing the official image to ensure the movement is smooth. The bottom row displays the test shots and the top row the frames of the animation. The captured items are a JPEG format and are exported as frames in a folder to be used later.

Like Aleksandr Petrov, the candidate has painted her frames by referring to a pre-shot live footage. The live footage is simplified by means of sketching key frames on paper. Where the live footage shows blurry frames, they are ignored and only the clearly visible ones are sketched. The sketched frames are then painted for the actual film. Due to limited equipment availability, multiple animation layers are not used. All animation takes place on a single layer of plastic over the canvas. Several experiments were conducted in the attempt of creating the illusion of depth. Another plastic sheet was to be laid on top of the original which consists of the given background. This experiment was not a success due to the fact that the main lighting source is from below the canvas. Hence variation in tones is achieved through variation in paint opacity and thickness. Given that the light tones rely on the transparency it meant that a lighter object could not be at the front of a darker object. In order to achieve the desired three- dimensionality and a sense of depth, the candidate needed to consider alternative methods. The original shots are of a particularly large size, 3008 x 2000 pixels, which leaves room for experimentation and manipulation. The large stills were imported in *Corel Painter X* for their next phase. The aspect ratio of the film is 16:9 with frame size of 960 x 540 pixels. The original images are scaled according to the aspect ratio of the film. Multiple layers are digitally created by duplicating the file and cropping out only the needed area. The screenshot below shows the process of creating multiple rows of arches and columns.



Figure

A black background is chosen to enable accurate erasure of the excess original background. When all the necessary erasure is completed, the set of columns is saved as a separate layer which can be reused many times. The larger columns show the original size of the photographed painting, while the smaller set, show the scaled down version. The various digital layers echo the analogue paper cut out technique, where paper cut out drawings are layered on multiple layers of glass. Although the digital platform offers many advantages, it is not necessarily easier. In the case of paper cut out stop-motion, where existing drawings are layered on multiple glass levels, the camera is moved in the desired direction to create movement through space, whether it is across, inwards or outwards. The actual positioning of the images and the distance between the glass layers, create natural depth. The digital canvas, particularly that in 2D software does not offer existing depth. The illusion of depth needs to be imagined and planned by the animator. The movement through space and the illusion of depth is only achieved through careful calculation, keeping in mind that the objects in the foreground will be larger and will be moving across faster. The further an object is to the background the slower it will appear to be moving and naturally it would look smaller. The following image shows a screenshot from the final stages in the animation using the above mentioned method.



Figure

Not much can be deduced from the image itself except that it is a frame stack file with 400 frames and that all layers have been dropped to the canvas. *Corel Painter* provides a great variety of simulated traditional art tools however its animation options are quite limited. It operates on the most basic frame-by-frame method. The software does allow multiple layers however, one needs to keep in mind that once it is moved on to the next frame the changes to the previous cannot be undone unless each frame is exported as an uncompressed riff document. This is a good practice though it is particularly time and space consuming. The candidate's preferred approach to this problem is to deal with each layer independently and back up the file before introducing the next layer to avoid making irreversible mistakes. The above selected example was done in three separate stages, involving three separate frame stack files. The first layer is the background garden with the flowing fountain. Only a few frames are alternated to create the illusion of flowing water, but none of the objects change their position. After the 400 frame clip is completed, the first row of columns is added to the scenery. The columns are added as a new layer, which is shifted with a few pixels to the left with every frame. On the last frame the layer is dropped (merged) to the canvas and is no longer a separate layer. As mentioned earlier with every change of frame the layer is merged to the canvas automatically except for the final frame. The exact same principal is applied to the second layer of columns, except the number of pixels is increased in order to increase the speed as objects in the foreground will appear to be moving faster. This working process is unique to the candidate's way of experimenting and integrating traditional and digital media, and thus making it a useful guide for animators working in hybrid,

experimental way. The thorough practical study illustrates the digital platform's ability in crossing disciplinary boundaries and integrating various media. The practical approach places the film under the discipline of digital art on two fundamental levels. Firstly the digital medium has been used to aid in the creation of the hand painted images and secondly to facilitate it. As explained by Christiane Paul in *Renderings of Digital Art* digital technology has had profound influence on both art and music and has led to new levels of experimentation, in the case of music through the instant remixing sampling and reconfiguration (Paul, 2002: 472). Paul further states that digital technology used as a medium implies that the work is produced, stored and presented in digital format (Paul, 2002: 472). In the case of the candidate's film all preparatory work such as source photographs and videos are in digital format, all created with the purpose of helping the analogue hand-painted process. Going back to the example in the image above, in order for the images to be digitally manipulated it implies that they are digitally stored. Digital and analogue media are tightly integrated.

The digital platform is further used for both for stylistic and narrative purposes. From narrative point of view the film is self-reflexive as the mixed medium used in the making becomes the predominant theme. Themes reflecting on the advancement of technology make a significant portion of the narratives expressed through various digital art forms. To name a few, common themes include artificial life and artificial intelligence, bio telematics and telepresence (Paul, 2002: 473). Similarly in the film *"The Everlasting and the Ever-Changing"* the main theme revolves around the idea of revolution in technology from an artist's point of view. Reference to the introduction of new art styles and new technology is made through the introduction of digitally drawn characters. These characters include the new artists, the weed and the paint bucket. They all form a part of the second stage of the animation process. All digital drawings are done by hand on *Corel Painter X* using a graphics pen and tablet. Prior to this all photographed stills are imported in *Corel Painter X* as frame stack files. The digital additions are done only after the stop-motion layer is completed to a satisfactory level. The still below provides an example of the mixed media scenes.

Figure

On the left side of the frame is the hand painted figure while on the right is the digitally hand drawn. The digital tool used for the figure on the right is known as artist oils and it is a digital simulation of oil paint. The two figures are intentionally juxtaposed, aiming to draw the viewers' attention to the similarities and differences between the traditional and new digital media. The whole fighting sequence is painted once on the canvas after which it is imported in *Corel Painter X* and it is traced using a transparent layer. That digital layer is later positioned in the frame to match the other figure and create the fight.

The final editing is done entirely on *Final Cut Pro*. Every scene is exported as a *QuickTime* movie using either motion JPEG or animation as a compressor. Sound effects are added to the final film after all the video editing is completed. Most sound effects do not play a particularly important role in the narrative but their purpose is to enhance the mood of the film. The only part in the film where sound plays a symbolic role is where the piano tune is played from the background. During the sweeping scene where the artist is captured painting the grass, an acoustic piano is heard in the background. The traditional art and music media are thus related. The second time the piano to be heard is when the digitally drawn artist appears for the first time in the narrative. In this instance the tune is produced by an electric keyboard, which again relates the two examples of audio and visual new media. Those ideas are nevertheless subject to criticism as all audio in the film is in a digital format regardless of what it represents. All images are in a digital format regardless of how they were created. The film is not aimed at answering any questions regarding the ongoing media debates. It simply reflects back on its own media and questions their own relevance in the digital era, while exemplifying how different media blend and interact.

In this chapter the two different animation approaches of the candidate were documented in detail with reference to her two animated films *"Set Me Free"* and *"The Everlasting and the Ever-Changing"*. The two films were studied in context of their relevance as art forms with the digital revolution. The styles of the two animations differ greatly and both reveal traces of influence from the animators Yuri Norstein and Aleksandr Petrov. Although different both animated films demonstrate how the digital medium has infinite possibilities in being used both as medium and a facilitating tool. Both the traditional and the digital approaches demonstrate the possibilities of integrating fine art traditions in the new media. They also demonstrate the possibilities within the digital platform as a tool facilitating tradition as opposed to replacing it.

CONCLUSION

The study has explored the significance of traditional and experimental Eastern European animation both as a valid fine art and film tradition within the context of the digital revolution. The study has focused particularly on the works of the two notable animators Yuri Norstein and Aleksandr Petrov and examined their animation approaches from technical, aesthetic and narrative point of view.

The candidate's practice-led research consisting of her two animated films *Set Me Free* and *The Everlasting and The Ever-Changing* has been closely documented and examined as it relates to the theme of relevance in fine art tradition within the digital technology revolution. Parallels between the work of the candidate and the work of the selected animators have been made, as both Yuri Norstein and Aleksandr Petrov have influenced the candidate's work on both narrative and aesthetic level.

Relating the study to the theoretical research of Lev Manovic and Christianne Paul reveals that the early processes of experimental animation, art and filmmaking are largely facilitated by the new digital technology. In terms of their relevance they are echoed and rediscovered through the new medium. Rather than rendering the traditional media obsolete, new media has inspired the reinvention of the old through new possibilities.

Digital technology has the potential to facilitate almost any traditional art media, and has made the animation and filmmaking process more affordable and accessible to the individual. This, as the study demonstrates, has allowed the individual to work independantly and utilise both the new and old medium as a tool for personal expression. Thus in light of the central aim and research question regarding the validity of fine art traditions applied to animation in the context of the digital revolution, it can be concluded that tradition remains of importance and interest due to the infinite ways by which artists can apply and re-invent the old medium.

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