

https://dspace.org/

A Comparative Analysis of the Transition from Stop-Motion to CG Animation at Two South African Studios: Sunrise and Triggerfish

Walker, Kelly

2019

https://hdl.handle.net/10539/29348

Walker, Kelly Kimberley, (2019) A comparative analysis of the transition from Stop-Motion to CG Animation at two South African studios :Sunrise and Triggerfish, University of the Witwatersrand, Johannesburg, https://hdl.handle.net/10539/29348

Downloaded from a DSpace repository. https://dspace.org/

A Comparative Analysis of the Transition from Stop-Motion to CG Animation at Two South African Studios: Sunrise and Triggerfish

Kelly Walker

A Research Report submitted to the Faculty of Arts, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements of the degree of Master of Arts in the field of Digital Animation by Research Report.

Cape Town 2019

Abstract

A critical and comparative analysis of South African computer-generated animation, focusing on the CG animation produced by two Cape Town based studios: Sunrise and Triggerfish. The history of these studios, as well as the technical and stylistic conventions that they subscribe to in the creation of computer-generated animation, will be discussed relative to each other and to their stop-motion origins. The bulk of the inquiry will take the form of a comparative analysis of four texts, with Khumba (2013) reflecting Triggerfish's CG portfolio and their work for Takalani Sesame (2000-2005) depicting their stop-motion contributions, while Munki and Trunk (2016) and The Legend of the Sky Kingdom (2003) represent Sunrise's CG and stop-motion animation respectively. Through a comparison of production pipelines, techniques and style, an attempt will be made to assess the impact of global markets on South African animation aesthetics.

Declaration

I hereby declare that this dissertation is my own work. It is submitted for the degree of Master of Arts in field of Digital Animation at the University of the Witwatersrand, Johannesburg. It has not been previously submitted for any degree or examination at any other university.



_____

Kelly Walker

29th day of May 2019

Acknowledgements

As a representation of the culmination of two years of work, this thesis is the product of an infinite number of sources of influence and inspiration, but I would especially like to acknowledge a small number of individuals who have left their mark on this research.

First and foremost, I would like to thank my supervisor Prof. Christo Doherty whose patience with me was immense and whose guidance was immeasurable in pushing me to refine, rework, and rethink my writing in ways that I could never initially have imagined.

Hilton Treves, Phil Cunningham, Matthew Brown, Mike Buckland, Stuart Forrest, Anthony Silverston, Riccardo Capecchi, Ree Treweek, Dianne Makings, David Hecker and Martin Heigan for being so willing to take time out of their busy schedules to assist in this research.

Nuno Martins and Rhiannon Rheid for their immense generosity.

Shani Campbell for her prolonged enthusiasm, unending encouragement and her challenging of my ideas in the best possible way.

My family, some of whom I am fairly confident despite my decade long involvement in the field of CGI still do not fully understand what I do for a living, but support me unwaveringly all the same and always understood when my computer took up more time than them.

Sao Mendes and Shaun Schoeman who both went above and beyond to assist me with administration on more than one occasion.

My colleagues Carl Visagie, Alex Gilfillan, Bronwyn Horne, Jarrod Hasenjager, Nicole Wolman, Nick Welch, Benito Kok, and Sam McSharry for constituting a team which afforded me the opportunity to lean on them when late nights spent writing accumulated.

Last, but certainly not least, my students who in many ways were the catalyst for this research and from whom I learn every day.

Contents

Abstract 1

Declaration 2

Acknowledgements 3

Contents 4

List of Figures 7

Glossary 9

Introduction 11

Chapter 1: The History of Three-Dimensional Animation 18

1.1 The Origins of Animation in South Africa 18

1.2 The 1920s and the Dawn of Industrialised Animation in America 20

1.3 The Emergence of Traditional Animation in South Africa 21

1.4 The Dawn of Television in South Africa and the SABC's Animation Unit 22

1.4.1 Annie-Mation Studios 24

1.5 1980 - 2005, South African Stop-Motion 26

1.5.1 Klaybow Films & XYZoo 28

1.5.2 Triggerfish (1996-2005) 30

1.5.3 Sunrise (1998 - 2004) 32

1.6 AARPA, the University of Utah and The birth of CGI 34

1.6.1 The Birth of Pixar 35

1.6.2 Disney Tests the CG Waters 36

1.7 The Beginnings of South African CG 37

1.7.1 Digital Direction 37

1.7.2 The House Next Door 40

1.7.3 Triggerfish (2003 - Present) 43

1.7.4 Sunrise (2005 - present) 47

1.8 Thoughts on the historical Context of South African CG Animation 50

Chapter 2: The Aesthetics of Animation **54**

2.1 The Birth of the Disney Style of Animation 56
2.1.1 Narrative 56
2.1.2 Forms and Spaces 57
2.1.3 Movement 57
2.1.4 Sound 60
2.2 Pixar and the Principles of Animation 60
2.2.1 Narrative 61
2.2.2 Forms and Spaces 61
2.2.3 Movement 65
2.2.4 Sound 67

Chapter 3: Triggerfish: A Case Study **68**

3.1 Production Context 69
3.2 An analysis of the early stop-motion animation produced by Triggerfish Studios 70
3.2.1 Narrative and Structure 70
3.2.2 Three Dimensional Forms 72
3.2.3 Three Dimensional Spaces 73
3.2.4 Movement 75
3.2.5 Sound 77
3.3 A Distinctly South African Stop-Motion Aesthetic? 78
3.4 An analysis of the CG animation produced by Triggerfish Studios 79
3.4.1 Narrative and Structure 79
3.4.2 Three-Dimensional Forms 81
3.4.3 Three-Dimensional Spaces 83
3.3.4 Movement 89
3.3.5 Sound 91
3.4 A Distinctly South African CG Animation Aesthetic? 93

Chapter 4: Sunrise: A Case Study **94**

4.1 Production Context 94
4.2 An analysis of the early stop-motion animation produced by Sunrise Productions 97
4.2.1 Narrative and Structure 97
4.2.2 Three Dimensional Forms 101

4.2.3 Three Dimensional Spaces 103
4.2.4 Movement 107
4.2.5 Sound 108
4.3 A Distinctly South African Stop-Motion Aesthetic? 108
4.4 An analysis of the CG animation produced by Sunrise Productions 109
4.4.1 Narrative and Structure 110
4.4.2 Three-Dimensional Forms 111
4.4.3 Three-Dimensional Spaces 113
4.4.4 Movement 114
4.4.5 Sound 116
4.5 A Distinctly South African CG Animation Aesthetic? 116

5. Conclusion 117

5.1 Observations and Recommendations 118
5.2 Government Funding Policies and the South African Animation Industry 119
5.3 The Nollywood Model 123
5.4 Closing Thoughts 124

Appendix A Filmography 125
Appendix B Timeline 129
Appendix C Interviews 130

Works Cited 178

List of Figures

Fig. 1.Still from the BMW *Sheer Driving Pleasure* Campaign 40
Fig. 2. Still from Simba *Roar with Flavour* Campaign 42
Fig. 3. Still from *Life at the pond: The rise and fall of Tony the frog* 45
Fig. 4. Still from *Me and Jessie D: Fish Fry* 45
Fig. 5. Still from *Sopo* 45
Fig. 6. Still from *Always Take the weather with you, Jungle Beat* Pilot 49
Fig. 7. Still from *Lifted, Jungle Beat* Season 3 49
Fig. 8. Still from *Once Upon a Stable* 50
Fig. 9. Still from *The Lion of Judah* 50
Fig. 10 Environment Design in *URBO: The Adventures of Pax Afrika* 52
Fig. 11 Character Design in *URBO: The Adventures of Pax Afrika* 52
Fig. 12 Character Design in *Magic Cellar* 53
Fig. 13 The Development of the treatment of eyes, early Disney 62
Fig. 14 The Development of the treatment of eyes, classic Disney 62
Fig. 15 The Development of the treatment of eyes, Pixar 62
Fig. 16. Body Type Comparison: *Cinderella* 63
Fig. 17. Body Type Comparison: *Snow White and the Seven Dwarfs* 63
Fig. 18. Body Type Comparison: *Cinderella* 63
Fig. 19. Body Type Comparison: *Snow White and the Seven Dwarfs* 63
Fig. 20. Body Type Comparison: *The Incredibles 2* 64
Fig. 21. Body Type Comparison: *Inside Out* 64
Fig. 22. Body Type Comparison: *The Incredibles* 64
Fig. 23. Body Type Comparison: *Brave* 64
Fig. 24. Motion Blur: *Presto* 66
Fig. 25. Smear Frames: *Aladdin* 66
Fig. 26. Smear Frames: *Frozen* 66
Fig. 27. Still from *Red Brushes Teeth* 71
Fig. 28. Still from *Elements of Nature* 71
Fig. 29. Still from *Michael the Visitor* 73
Fig. 30. Still from *Red Brushes Teeth* 73
Fig. 31. Still from *Redbrandt* 74
Fig. 32. Still from *Redbrandt* 74
Fig. 33. Still from *Elements of Nature* 74
Fig. 34. Still from *Chickens Recycle* 75
Fig. 35. *Dancing Chameleon:* Limited Movement 76
Fig. 36. *Dung Beetle:* Limited Movement 76
Fig. 37. South African Street Art: Beaded & Wire Tourist Curios 78
Fig. 38. Still from *Coughing Cows* 78

Fig. 39. Still from *Dancing Chameleon* 78
Fig. 40. South African Street Art: Plastic Bag Chickens 79
Fig. 41. Still from *Chickens Play Soccer* 79
Fig. 42. *Khumba:* Nigel 82
Fig. 43. *Madagascar:* Herd of Zebras 82
Fig. 44. *Madagascar:* Marty 83
Fig. 45. *Khumba*: Khumba 83
Fig. 46. *Khumba*: Landscape defying western traditions 87
Fig. 47. *Khumba*: Landscape defying western traditions 87
Fig. 48. *Khumba*: Landscape defying western traditions 87
Fig. 49. *Khumba*: Traces of modernity, history and context 88
Fig. 50. *Khumba*: Traces of modernity, history and context 88
Fig. 51. *Khumba*: Traces of modernity, history and context 88
Fig. 52. *Khumba*: Traces of modernity, history and context 88
Fig. 53. *Khumba*: Traces of modernity, history and context 89
Fig. 54. *Khumba*: Traces of modernity, history and context 89
Fig. 55. *The Legend of the Sky Kingdom:* Serpent 99
Fig. 56. *The Legend of the Sky Kingdom:* The Evil Emperor 99
Fig. 57. *The Legend of the Sky Kingdom:* The Evil Emperor 99
Fig. 58. Willie Bester, *Universal Soldier* 102
Fig. 59. Still from *The Legend of the Sky Kingdom* 102
Fig. 60. Norman Catherine, *The Last Remains of Another Man* 102
Fig. 61. *Legend of the Sky Kingdom:* Reclaimed Landscape 105
Fig. 62. *Legend of the Sky Kingdom:* Reclaimed Characters (Blockhead) 105
Fig. 63. *Legend of the Sky Kingdom:* Reclaimed Landscape 105
Fig. 64. *Legend of the Sky Kingdom:* Map 106
Fig. 65. *Legend of the Sky Kingdom:* Flat Space 106
Fig. 66. *Legend of the Sky Kingdom:* Flat Space 106
Fig. 67. Still from *Horton Hears a Who* 112
Fig. 68. Still from *Horton Hears a Who* 112
Fig. 69. Still from *Munki and Trunk: The Hiccup Line* 112
Fig. 70. Still from *Munki and Trunk: The Hiccup Line* 112
Fig. 71. *The Animation Industry at a glance* 120
Fig. 72. *Positioning The Animation Industry* 123

Glossary

ASA: Animation South Africa, a non-profit organisation which represents the local animation industry.

Commercial Animation: Animation produced with the primary aim of acquiring monetary profit

Disneyesque: Animation which through its narrative structures and devices or production design subscribes to the stylistic conventions established by the Walt Disney Studio.

DTI: The South African Department of Trade and Industry, a government body which seeks to promote international trade and investment in the development of various industries including the animation industry.

Experimental Animation: This study follows Wells' definition which describes abstract or stylised modes of expression characterised by abstraction, specific non-continuity, interpretative form, the evolution of materiality, multiple styles, presence of the artist, and dynamics of musicality.

Independent Animation: Animation produced by small teams or individuals outside of established studios.

Junkmation: The aesthetic developed by Sunrise Productions for their first animated feature film *The Legend of the Sky Kingdom (2003),* which utilises recycled and reclaimed materials in the fabrication of its puppets and sets in alignment with Zimbabwean arts and crafts traditions.

Mainstream Animation: Animation produced by established studios and which conforms to accepted conventions in terms of production processes, techniques and aesthetic.

NFVF: The National Film and Video Foundation is a government bureau of the National Department of Arts and Culture dedicated to promoting the production of films in South Africa.

Orthodox Animation: Stands in opposition to experimental animation and refers to Wells' definition of animation characterized by the following parameters: configuration, specific continuity, narrative form, the evolution of context, unity of style, absence of the artist, dynamics of dialogue etc

Stop Frame Animation: A lesser used, and somewhat outdated, alternative terminology for Stop Motion Animation, but which is still used by specific South African practitioners and which was included in order to preserve the authenticity of the interviews conducted with those practitioners.

Stop Motion Animation: Stop Motion Animation refers to animation which utilises either cut out, clay or puppet techniques and achieves movement done by manipulating objects incrementally while filming a frame per increment.

Street Art: Arts and crafts, commonly observed within Southern Africa, in which urban debris such as tin cans, wire and bottle caps are utilised in the construction of toys or tourist curios.

Introduction

This dissertation explores both empirically and historically the evolution of computer-generated animation aesthetics in South Africa between 1988 and 2018. It documents the history and development of CG animation within the contexts of the advertising, broadcast and feature film industries while considering the economic and political climates of the time and their impact on South African animation studios. During the preparatory stages of my research into the South African CG animation industry it became clear that there was a very finite amount of documented material concerning its development, and in fact, animation in South Africa as a whole. Today, as the language, forms and conventions of computer-generated animation develop, as happened during the infancy of cinema over a century ago, the details aren't being recorded. For Lev Manovich, the danger is that most texts surrounding CGI are concerned with its potential for the future and this has replaced the essential documentation of the present and recent past, however, recording the present doesn't in any way limit our ability to predict the future, instead it illuminates potential paths for future development that may be present around us in emergent forms and practices (Manovich 6).

Traditionally, the study of animation has been largely neglected due to a general disregard for the medium as a serious or, more specifically, socially conscious artform. Academic communities and the art world at large have, historically, critiqued animation with a primary focus on mainstream production at the expense of independent and experimental animation. The medium has suffered marginalization as a result with many critics, such as Walter Benjamin, expressing the belief that the introduction of standardised techniques and production methods, as pioneered by Barré Studio, Bray Productions, and later the Walt Disney Studio, delegitimised animation as an art form. In his seminal text The Language of New Media, Manovich laments, "I wish that someone in 1895, 1897, or at least 1903, had realized the fundamental significance of the emergence of the new medium of cinema" (6). Manovich clarifies this by stating that no comprehensive or systematic accounts of the emergence of cinema were collated while it was in its earliest development. This absence of a historical archive has forced film theorists to generate a history from "a set of random and unevenly distributed historical samples" (6). While the histories of mainstream studios such as UPA, Fleischer Studios, Hanna-Barbera and The Walt Disney Studio have all been richly documented, it has only been within the past few decades that the scholarly significance of these accounts has begun to be recognised.

Further compounding this issue is the plasticity of the animated body and its potential for continuous transformation which makes it a very difficult thing to define, as its boundaries and associated technologies are ever evolving. In the early days animation presented itself provocatively, from Emile Cohl’s Fantasmagorie (1908) in which the protagonist attends the cinema only to find that the world he knows to be true, and all of its contents, has become impossibly redefined and his physical form is mutated and unravelled, to Disney’s reconfiguring of space and time within a surreal coalescence of form in The Alice Comedies (1924-1927). However, the metaphoric qualities that defined early animation would soon become tamed within the mainstream entertainment sector as particular aesthetic and

stylistic choices, such as Disney's twelve principles of animation, would evolve to become expected conventions. This created a division between mainstream and independent animation production. Independent animation is often more experimental in nature, and frequently reflects a more individual approach than its mainstream counterpart through critical engagement with form, medium and socio-political events. Mainstream animation, on the other hand, begets the expectation that it will conform to prescribed standards of production. In South Africa, independent animation has become somewhat synonymous with the social responsiveness characteristic of the work of William Kentridge. Kentridge's unique style of creating animation through successive charcoal drawing, in which one drawing is photographed, erased and then a second drawn over the residue of the first, reveals a similar fascination with the malleability of space and time that characterised early animation in the United States, and the same focus on socio-political influences that distinguished early Eastern European puppet animators like Juri Trnka, or Euro-American Avant-Gardists such as Norman McLaren. This is not to say, however, that mainstream production models and social consciousness are mutually exclusive, in particular, within a South African context. The prevalence of small studios and a history of fractured development has resulted in an environment where the boundaries between independent animation and mainstream production are often blurred. The stop motion animation produced in South Africa and Zimbabwe within the 1990s provides an ideal case study for animation produced for mainstream consumption, but with a clear cultural and/or political identity.

The manner in which animation is subject to continual reconfiguration as technologies evolve and its adoption of standardised production line practices is, however, not the only factor that may have led to its marginalization. The problem is equally likely to have been that animation, through its fixed time frames, repetitive structures, recognisable patterns of implementation and association with a youth demographic was mistakenly labelled a children's only medium by critics and academics of the time. As a result, animation has resided in a blind spot between the photographic and the painterly, but as the boundaries between mainstream and independent animation dissipate further through increased accessibility to software and training and the evolution of a plethora of digital avenues for syndication, promotion and distribution, a number of scholars have begun to shift perceptions and prejudices regarding animation through their writing. These include to name, but a few, Alan Cholodenko, William Moritz, Donald Crafton, Maureen Furniss, Norman Klein, Paul Wells and Johnny Hardstaff.

In Understanding Animation, Paul Wells is optimistic about the increase of quality writing dedicated to the consideration of animation as an art form. This outlook is echoed by Maureen Furniss, who points out that recent years have seen a surge in academic writing and research concerning animation in Europe and America in part thanks to an increase in the number of international film festivals celebrating animation such as Annecy, Kokatsu and Ottawa. Locally the Cape Town International Animation Festival has done much for the visibility of local artists and production houses. The establishing of the Society for Animation Studies in 1987 and the annual Siggraph conference founded in 1969, which aim to promote CGI and animation discourse, have also helped to raise the profile and popularity of discussions surrounding animated techniques, processes and aesthetics. However, despite this turn towards

documenting animation history and development internationally, relatively little recorded research has occurred with a focus on South African animation. This fact is highlighted by Shanaz Shapurjee in her Masters thesis, A historical enquiry into the animation unit, situated within the South African Broadcasting Corporation (SABC) 1976-1988, wherein she establishes the urgent need to record South African animation history before it is lost as a consequence of scholarly neglect, poor archiving and preservation systems, or the fact that veterans within the industry are passing away "without their histories being properly documented" (92). Furthermore, within the neglected area of the study of animation, the study of computer-generated animation techniques is even further overlooked, with the most comprehensive contribution to date being Andrew Haycock's dissertation on stop-motion. This research paper aims to contribute to the finite amount of research which has been conducted into South African CG animated feature film production by Adam de Beer, Hermann Wittenberg, Giannalberto Bendazzi and Maureen Furniss.

It is the intention of this research report to recognise that little has been done in the way of recording the advent of South African CG animation and its emergent forms and practices, placing it at risk of losing its history, and to create some much needed visibility for locally produced 3D animation through a survey of its development. This research seeks to promote discourse surrounding the South African animation industry, but will also provide the foundation for a contextual analysis of the socio-political factors which shaped local CGI development with the aim of determining whether a recognisably South African CG animation aesthetic has emerged.

Theoretical Approach

The bulk of the research takes the form of a comparative evaluation of two South African studios: Triggerfish and Sunrise Productions. Qualitative research formed a basis for the appraisal of these studios in accordance with David Silverman's multi-tiered approach (8-9). This approach is comprised of four stages: observation, analysis of texts and documents, interviews, and the recording and transcription of the collected data. The interviews and textual analysis conducted within these phases of the research focus on the studio's pipelines, distribution models and the aesthetic conventions which they subscribe to in both their stop-motion and CG work.

The textual analysis consists of four case studies, two per studio, with one representing their stop-motion contributions and one their CG animation. These case studies are listed below:

Medium	**Triggerfish**	**Sunrise**
Stop-Motion	*Takalani Sesame* (2000-2005)	*Legend of the Sky Kingdom* (2003)
Computer-Generated	*Khumba* (2013)	*Munki and Trunk* (2016)

All of the above works were viewed and then subject to aesthetic analysis considering both technique and potential influencers in order to determine whether or not they were successful in establishing a distinctive, local aesthetic. The discussion of aesthetics implemented a combination of techniques including Maureen Furniss' recommendations for contextual analysis, Paul Wells' analysis of narrative strategies, Hermann Wittenberg's considerations of spatial identity, Rudolph Laban's theories of movement analysis, and Frank Thomas and Ollie Johnston's The Illusion of Life as a basis for evaluating stylistic conventions. The primary aim of the comparative analysis of the work produced by these studios is to identify whether or not either studio successfully established a recognisably South African aesthetic, or if they instead resorted to adopting dominant American conventions of production design. As a result of this aim, the historical and cultural factors as well as the aesthetic and technical ones that may have influenced the development of South African computer-generated animation, between 1988 and 2018, were evaluated.

Existing research was also drawn from to construct a historical context: the discussion of the international history of computer-generated animation was based upon Tom Sito's Moving Innovation and David Price's The Pixar Touch. Analysis of the global history of traditional animation was derived from Maureen Furniss' Animation: The Global History and Giannalberto Bendazzi's Cartoons: One Hundred Years of Cinema Animation. While discourse surrounding the development of stop-motion internationally was extracted from Bruce Holman's Puppet Animation in The Cinema and Michael Frierson's Clay Animation.

As researching the local animation industry is made challenging by the problem of very limited documentation, my investigation was primarily centred around interviews with key practitioners in the field and the analysis of articles extracted from the archives of trade journals such as Screen Africa and Animation Magazine. Initially, I spoke informally to a number of local artists in order to discover the lineage of CG development within South Africa, thereafter, seven primary subjects participated in formal recorded interviews. The table below lists the interviewees as well as their relevance to the research:

Subject	**Studio**	**Job Description**
Hilton Treves	Dreamwave / Digital Direction / Refinery / BlackGinger / Cinegestix	VFX Director and Founder
Martin Heigan	Video Lab / Refinery / Ministry of Illusion / The Flying Circus	Visual Effects Supervisor and Mocap TD
Phil Cunningham	Sunrise Productions	Founder and Writer
Matthew Brown	Clockwork Zoo / Sunrise Productions	Producer
Stuart Forrest	Triggerfish	Founder and Partner
Mike Buckland	Triggerfish	Partner and Head of Pipeline
Anthony Silverston	Triggerfish	Partner and Writer

The interviews were conducted in person with the exceptions of Matthew Brown and Anthony Silverston who responded to the questions via email, and Martin Heigan who spoke to me via Skype. All interviews were semi-structured and comprised of several questions in order to ascertain both the interviewee's involvement with the South African animation industry between the years 1988 to 2018 and their views on the development of aesthetic at their respective studios. The interviews yielded the historical background of the studios in question, any influencers (both local and international) which had impacted the studios' stylistic conventions, the influence of international distribution on South African studios, studio practices regarding technique and aesthetics, as well as the socio-political factors that influenced and determined the work that they produced.

In addition to my own research this dissertation also draws from two other postgraduate research reports: Andrew Haycock's *South African stop-motion animation from 1980-2005* and Shanaz Shapurjee's *A historical enquiry into the animation unit, situated within the South African Broadcasting Corporation (SABC) 1976-1988.*

As referenced earlier in this introduction, there has been a significant increase in scholarly research into animation in Europe and America (Furniss 4), however, neglect is still seriously prevalent in countries like South Africa. Andrew Darley asserts that the neglect of animation research has further hindered animation studies by creating an "inferiority complex" (64) within the field and as a result animation scholars compensate by conducting research into animation that is overly abstract and idealistic. A direct outcome has been a lack of more important research into animation such as research into its history, aesthetics and techniques (Darley 64 - 67). Consequently, I decided to focus my research on the aesthetic, technical and historical aspects of CG animation. Initially, I had intended to record the entire history of the South African CG animation industry, but I soon realised that this was impractical owing to both the required length of this dissertation and the fractured nature of the development of computer-generated animation in South Africa. As a result, I decided to focus on the development of CG feature film animation. To date only four full length computer-generated animated feature films have been produced with either full or partial involvement from South African studios: *The Lion of Judah (2011)*, *Jock the Hero Dog (2011), Adventures in Zambezia (2012)* and *Khumba (2013)*. Both *Khumba (2013)* and *Adventures in Zambezia (2012)* make excellent candidates for analysis, however, due to a number of anomalies in the production of *Jock the Hero Dog (2011)* (such as a crew of animators that were predominantly students and recent graduates), and the involvement of more than one local studio and an international production company in the creation of *The Lion of Judah* (Cunningham), neither of the two films were suitable for evaluation. However, during the course of my interviews, I discovered that Sunrise Productions (one of the studios involved in *The Lion of Judah (2011))* was also responsible for Africa's first feature-length stop-motion animation, *The Legend of the Sky Kingdom (2003)*. Sunrise has since produced three successful, fully CG animated short-form series and have a slate of feature film scripts

currently in development (Cunningham). As such Sunrise and Triggerfish (the studio responsible for *Adventures in Zambezia (2012)* and *Khumba (2013)*, were selected as the two studios for consideration.

Both stop-motion case studies, *The Legend of the Sky Kingdom (2003)* (representing Sunrise) and *Takalani Sesame (2000-2005) (*representing Triggerfish), as well as both CG case studies, *Munki and Trunk (2016)* (representing Sunrise) and *Khumba (2013) (*representing Triggerfish), are evaluated via textual analysis and through the combination of contextual consideration, aesthetic analysis and the appraisal of narrative. Evidence is provided that both studios have effectively established uniquely South African aesthetics within their work.

Chapter Outline

Chapter 1: The history of 3D animation

Using the contextual approach promoted by animation scholar Maureen Furniss, the first part of chapter one seeks to paint a picture of the socio-political factors which influenced the birth of animation within South Africa. It highlights the impact of the mining industry, the accompanying industrialisation of cities, and the Boer War on the development of cinema in South Africa, and considers the impact of the fledgeling film industry on early experimentation with animation. This chapter also focuses on the development of traditional animation in the United States and the establishment of American studio pipelines, animation techniques and stylistic conventions for the sake of comparison with the South African industry in later chapters. While many other studios such as UPA, Fleischer Studios, Warner Brothers and Hanna-Barbera, to name but a few, each massively influenced the development of two-dimensional animation in the United States, the focus of the section dedicated to the history of American traditional animation is on the Walt Disney Studio. This emphasis is due to the studio's singularly pervasive and lasting influence on the South African animation industry as a consequence of Disney trained animators who relocated to South Africa between the 1940s and 1970s. Penultimately this chapter considers the emergence of television in South Africa and discusses its impact on the local traditional animation industry and concludes by documenting the emergence of studios specialising in three-dimensional forms of animation within South Africa.

Chapter 2: The Aesthetics of Animation

This chapter considers the aesthetics of animation in order to provide a structure for the analysis of the stop-motion and computer-generated work produced by Sunrise Productions and Triggerfish Animation. It determines what characterises the dominant American model of feature film animation production in terms of stylistic conventions, and uses both Disney and Pixar as case studies. Representative works by Disney are analysed in terms of their development of narrative, styles of movement, sound and production design. A selection of work by Pixar is then evaluated using the same criteria, in order to establish a framework for comparison in the following chapter.

Chapter 3: Triggerfish a Case Study

This chapter is comprised of a comparative analysis of the computer-generated feature film animation produced by Triggerfish and its earlier stop-motion precursors. The aim is to determine whether or not the distinctive and culturally specific aesthetic achieved within their stop-motion work has been successfully translated into their computer-generated animation, or whether the studio has instead adopted Disneyesque conventions. This chapter focuses on the production context which informed the development of Triggerfish's style of animation and aesthetic and houses the textual analysis of the stop-motion animation produced for *Takalani Sesame (2000-2005)* and the feature film *Khumba(2013).* It concludes in an assertion that Triggerfish has been successful in the development of a culturally specific stop-motion aesthetic and, in part, in the development of a distinguishable CG aesthetic.

Chapter 4: Sunrise a Case Study

In a similar fashion, this chapter investigates content representing Sunrise's computer-generated work (*Munki and Trunk (2016))* and a feature film representing its stop-motion work (*The Legend of the Sky Kingdom (2003))*. This chapter presents the circumstances within which both Sunrise's stop-motion and CG work was produced in order to provide a contextual framework for examining the selected case studies. Both works are then subject to analysis with a focus on narrative, styles of movement and production and sound design. This chapter culminates in an assertion that Sunrise Productions was unequivocally successful in the establishment of a recognisably Zimbabwean stop-motion aesthetic, but is yet to produce a conclusively local aesthetic within their CG work.

Conclusions and Speculations

Finally, the conclusions drawn from this research will be presented. The implications of current film sector policies on the development of animation in South Africa will be discussed, and recommendations for further research into this area will be proposed.

Appendices

Appendices are attached including a timeline of the development of CG animation in South Africa and a filmography listing CG animation produced in South Africa. This filmography can be considered the first step in an attempt to document the evolution of 3D computer-generated animation in South Africa. It is in no way complete but is intended to serve as a foundation for further research into the history of South African CG animation.

There is also a DVD that accompanies this research report, containing selected animation which represents the early development of computer-generated animation in South Africa by studios such as Triggerfish, Sunrise, The House Next Door and Digital Direction.

Chapter 1:
The History of Three-Dimensional Animation

This chapter aims to remedy the neglect of the history of CG animation and its development in South Africa, through the analysis of qualitative research in the form of interviews conducted with early practitioners within the field of CG animation in South Africa, and information concerning relevant studios and productions obtained from publications and journals.[1] Two key studios: Triggerfish and Sunrise are investigated and, as stop-motion provided the foundation for both studios, its history is also assessed and compared. Local stop-motion development is considered with a focus on four eminent stop-motion studios: Klaybow Films, XYZoo, Triggerfish, and Sunrise.

The first part of this chapter aims to provide an overview of the origins of early cinema and animation techniques within a South African context, while the second and third sections focus on the industrialisation of animation and the emergent feature film industry within the United States. The fourth section considers the impact of these global trends and developments on the shaping of South African television broadcasters and the local traditional animation industry. Although this study focuses on the development of South African computer-generated animation, the tracing of the historical advancement of more traditional modes of two-dimensional animation is also essential for two reasons: firstly, American and European practitioners and the modes of production which they institutionalised had an unequivocal impact on South African artists and secondly, many of the animators who featured in the establishment of a local traditional animation industry would later resurface within the local CG industry impacting it too. Lastly, the fifth and sixth sections evaluate the evolution of three-dimensional forms of animation (namely stop-motion and computer-generated animation) in South Africa and again assess the influence of American conventions and practices on local production models.

1.1 The Origins of Animation in South Africa

The 19th century heralded the birth of film and the emergence of animation, not yet as an art form, but as a source of experimentation and technological advancement which would soon earn it a place in live action effects and vaudeville halls around Europe and America, as seen in The works of Winsor McCay and James Blackton . Soon after vaudeville's rise to prominence in European theatres, it would take centre stage within South African popular culture too. During the mid-nineteenth century circuses, theatres and music halls were commonplace in Cape Town, Port Elizabeth and Grahamstown, and after the discovery of diamonds in Kimberley and then gold on the Witwatersrand during the late-nineteenth

[1] The primary publications sourced were Screen Africa, a South African monthly trade journal servicing the film, television and media sectors, which was established in 1988, and Animation Magazine, an American online and print magazine focusing on all modes of animation production and visual effects. Both publications ran articles on works produced by Triggerfish and Sunrise and printed interviews with the directors of the companies.

century, the resultant arrival of European prospectors facilitated an even greater demand for European modes of entertainment. However, the 1890s saw the Jameson Raid stir up political tension and ultimately lead to the Boer War. This period of civil unrest saw many aspiring filmmakers, performers and artists leave South Africa as a result of the harsh wartime living conditions at precisely the time that the remaining population was in need of entertainment and distraction. This coupled with the fact that Johannesburg and Kimberley were newly founded mining cities which adopted modern technologies more readily than older more established ones, resulted in an amplification of the demand for vaudeville performances which could be performed on small budgets with less equipment (Gutsche 1-10)

Cinema was only popularised within South Africa after the turn of the century when *Wolfram's Bioscope* made it profitable through the production and exhibition of Boer War documentary films. By 1915 demand for cinematic entertainment was growing and, as a result of this demand, Isidore Schlesinger[2] established African Film Productions, South Africa's earliest recorded production house. Its primary studio was erected in Killarney in Johannesburg as it presented the ideal locale for shooting exterior vistas and landscapes. Over the next few years, the studio would release approximately 30 productions including the comedic short film *The Artist's Dream (1916),* South Africa's earliest recorded instance of animation in film. In it, an artist sketches a young woman shortly before his drawings are brought to life in the form of a lightning sketch[3]. The film was directed by Harold Shaw and featured Dennis Sentry, who was at the time the cartoonist for the *Rand Daily Mail,* as the artist (Kersch 1997).

In 1917 African Film Productions would release four more animated shorts directed and animated by Norman H Lee: *Crooks and Christmas, Don't you Believe, The Adventures of Ranger Focus and the Adventures of Ben Cockles*. However, despite further success over the remainder of the decade, by the 1920s the early popularity enjoyed by African Film Productions began to wain as the American film industry, bolstered by the exit of British production companies from South Africa as a result of the war, began to assert a gradually more and more dominant hold over South African theatres (Kersch, 1997). After the animated works produced by African film productions in 1917, there appears to have been a lull with no recorded animation being produced in South Africa for two decades, however, this was not the case in the United States.

[2] Schlesinger was a Jewish American businessman who relocated to South Africa in the early 1900s, where he had amassed a vast industrial empire by the time of his passing.

[3] Lightning sketches are a mode of animation made famous by James Blackton, in which an artist is filmed drawing a caricature, or other illustration, and the footage is sped up and played back. Blackton utilised the technique in many of his short films such as *the Enchanted Drawing (1900).*

1.2 The 1920s and the Dawn of Industrialised Animation in America

This account of the development of animation within the United States is written from the perspective of the influence of American and European influence on the origins of the South African animation industry and, as such, focuses its attention on the establishment of the Walt Disney Studio in 1923.

The 1920s heralded the rise of the golden age of cinema in America, and as part and parcel of the relentless wave of production houses springing up, various studios began experimenting with animation. During this time, a decade before Walt Disney would establish sovereignty over the animation industry, another businessman John Randolph Bray would identify the underutilised potential for animation as a money making medium. In 1912 Bray established a studio and set about developing and patenting a number of labour reducing animation techniques including the use of printed background scenes, the layering of scenery assets on celluloid and, most importantly in partnership with Earl Hurd, the development of the animated cel process[4]. During this period Raoul Barrè[5] would set up a separate rival studio, also in New York, situating it as the centre for animation production at the time (Bendazzi 20). Barrè quickly began producing some of the first animated advertisements, while Bray began marketing government funded instructional edutainment to the United States military, which allowed him to further develop his assembly line approach to animation production with the division of labour between specialist animators in differentiated departments[6]. By the 1920s animation had not only rooted itself as a discernible medium with an established array of production practices and techniques, but had also effectively been industrialised. Bray had developed a hierarchical system of production adapted and expanded from his business background on scientific management principles known as ‘‘Taylorism’’[7]. This theory “impacted and influenced the way in which animation was to be created during the early years of film production, and has had lasting repercussions on the organisation of the American animation industry” (Furniss 18). These early practices of the division of artistic labour were subject to little or no continuity checks or quality assurances and, as such, the animations at times appeared disjointed and crude as their primary purpose was economic gain or the development of approaches to animation that were less labour intensive and suitable for large scale production. Bendazzi describes the period between 1910 and 1930 as “characterised not so much by valuable productions, but by the filmmakers’ search for devices, technical processes and language” (23). One studio though emerged and sought not only to promote technological advancement and time-saving techniques but also to transform animation into a medium focused on more than just the visualisation of gags: The Walt Disney Studio. An aspiration towards storytelling, coupled with the fact that it was one of the first animation studios to relocate to California alongside the live action film industry, may have resulted in the sort of

---

[4] The cel process involved the use of sheets of celluloid in order to allow for only parts of the body in movement to be redrawn

[5] Barrè would go on to develop the peg and registration system which allowed for perfect alignment of frame drawings.

[6] It is of interest to note that Disney would later both perfect Bray’s assembly line techniques and also adopt the strategy of producing wartime animation for the military in the form of animated propaganda and instructional videos.

[7] Taylorism takes its name from Frederick W, Taylor, an innovator in the field of scientific and economic management, who advocated the use of machines and standardisation of business practices in order to ensure predictable and sustainable outcomes.

socio-political environment necessary for the incubation and development of a new style of animation production. A style centred around capitalising upon the assembly line strategies employed by Bray and Barrè, but at the same time focused on elevating animation to the same status enjoyed by live-action film.

The 1930s saw the rise of The Walt Disney Studios with an expansion of its staff from a team of six in 1928 to a production line encompassing a massive 1600 artists by 1940. During this expansion, the artists who would later come to be known as the nine old men of Disney would join the studio: Milt Kahl, Eric Larson, Les Clark, Ward Kimball, Marc Davis, John Lounsberry, Wolfgang Reitherman, Frank Thomas and Ollie Johnston. Together, these animators developed Disney's twelve principles of animation.[8] This new found language of animation performance and creating specific, individuated characters as opposed to earlier generic character types, set the stage for the evolution of a new mode of cinematic animation production. *The Old Mill (1937)* (Furniss 94-98), would provide a testing ground for certain aspects of Disney's new style, such as multiplane camera techniques, and its first feature film *Snow White and the Seven Dwarfs (1937),* released later that same year, would launch its empire.

The Walt Disney Studios strove to craft a meticulous aesthetic, one that would become so successful that it was soon the industry standard for character animation. The Disney legacy would go on to have far-reaching effects with its marketing, distribution and stylistic approaches being adopted by studios worldwide.[9] The clear craftsmanship, pre-established working methods and seemingly guaranteed commercial success that it represented were very alluringly to South African animators, who often attempted to adopt and adapt the Disney style of animation in their own works.

1.3 The Emergence of Traditional Cel Animation in South Africa

After a two-decade lull in animation production in South Africa, Alpha Film Studios would emerge as the country's most prolific purveyor of traditional hand-drawn animation in the 1940s. The Studio was owned by Bill Boxer, previously of Empire Films, and in 1947 Boxer managed to convince the English animator Denis Purchase to relocate to South Africa in order to produce animated commercials designed for cinema exhibition for his studio (Bendazzi 395). Just the year before, Boxer had managed to recruit James Reindorp from Killarney Studios[10], and with the addition of Purchase to the team, the studio took off. Purchase who had been very influenced by Disney whilst living and working in the United KIngdom began establishing a Disney inspired style for Alpha Film Studio's fledgeling animation department. This would soon become common practice in South Africa with many foreign animators becoming resident

[8] A set of guidelines for the creation of believable and appealing character performance.

[9] For example, the acclaimed Japanese artist Osamu Tezuka, while pioneering a distinctly unique and culturally specific style for his approach to limited animation production in the internationally syndicated TV series *Astro Boy* (1963) was, at the same time, inspired by a number of aesthetic influences derived from his exposure to Disney animation.

[10] Killarney studios was the new name which African Film Production had adopted after relocating to Killarney.

artists at local companies and establishing Disney inspired modes of production at their respective studios (Shapurjee 50-51).

During its peak of production, Alpha Film Studios is believed to have been producing approximately sixty seconds of animation per week as well as countless drawtoons or lightning sketches, which Purchase took primary responsibility for, generating many of them on his own (Kersh 1997). By Disney standards this may sound rather modest, but when viewed in the context of a small, independent studio this was an impressive feat. According to Kersh's chronology of local cel animation, Alpha Film Studios continued to produce commercial animation and animated short films for bioscope exhibition for a further thirty years[11], until the advent of television in South Africa shrank the cinema market substantially.

1.4 The Dawn of Television in South Africa and the SABC's Animation Unit

The introduction of television in South Africa occurred in 1975, over two decades after its ascension in Euro-American territories. This was as a result of a few factors: firstly the then ruling National Party[12] wanted to maintain its draconian hold on the media and was battling to censor the expression of any anti-apartheid sentiments.[13] Various underground media such as *Radio Freedom* which was outlawed in 1969, or the newspaper *The Guardian* which was in jeopardy from its very initiation in 1937, including charges of incitation and high treason (de Waal 2012), were targeted and as such, the South African Broadcasting Corporation[14] was concerned by the potential for television as an anti-apartheid tool. The international movement for sanctions against South Africa was formally initiated in 1958 when the All African Peoples' Conference requested other African countries to impose economic sanctions on South Africa in protest against its apartheid policies of discrimination. By 1965 boycott movements against South Africa, aimed primarily at the rejection of South African exports, had also been adopted by the United Kingdom and other Western countries (Reddy 6-9). These would later be evolved into anti-apartheid movements (AAMs) with wider objectives such as academic, sport and Commonwealth sanctions. International boycotts and sanctions made the building of media relationships challenging and further delayed the advent of television in South Africa.

---

[11] Alpha Film Studios remained under its original name until the death of Bill Boxer when the studio moved to Irene and was renamed Irene Film Studios. In the 1960s Irene Film Studios merged with Killarney Film Studios forming Irene Film Laboratories and in 1996 the company was bought by The Video Lab.

[12] The National Party was a political party founded in South Africa in 1914 and disbanded in 1997. The party primarily promoted Afrikaner interests and became the governing party of the country in 1924. White minority rule and political supremacy were already well established within South Africa, however, after gaining control the National Party began party began implementing further policies of racial segregation in 1948, known as Apartheid (meaning "separation" in Afrikaans). Interracial marriage and sexual relationships were illegal, punishable offences, Africans faced significant restrictions on property or business ownership rights and were refused the right to vote. After the international condemnation of South Africa for its Apartheid policies, the NP-led government exited the Commonwealth, seperating from the British monarchy and becoming a republic in 1961 (Saho, 2017).

[13] Anti-Apartheid sentiments and resistance were at a high after the Sharpeville Massacre in 1960, in which police opened fire on a crowd of protestors objecting against new pass laws which would further restrict the movements of non-whites, 180 people were injured and 69 were killed.

[14] The South African Broadcasting Corporation, or SABC is South Africa's public broadcaster, and consists of nineteen radio stations and five television channels.

The establishment of a television broadcasting network over twenty years after its advent in the west also resulted in the SABC needing to procure the expertise of European Broadcast Specialists, who brought with them knowledge of the financial structures, technological specifications and organisational workflows required to operate and maintain a broadcast network. The SABC was, resultantly, very influenced by the BBC's broadcast model (Shapurjee 67) which at that stage situated animation as a purely children's medium and had, for the greater part of the sixties, been focused on stop-motion and puppet-based animation. The draw towards puppetry was that it could be derived from many of the same resources and skill-sets which had already been developed in order to support live action. The puppeteer Gordon Murray for example, famous for his work on *Watch with Mother* (1950-1974), created several stop-motion series including *Camberwick Green* (1966) and *Chigley* (1969). The modelmaker Peter Firmin and writer Oliver Postgate likewise created various stop-motion series during the same period, such as *Pogles' Wood* (1966-1967) and *Clangers* (1969-1972) (Sibley 28). The BBC's focus on puppet based forms of children's animation was later adopted by the SABC and had long-lasting repercussions on the development of animation within South Africa.

Two departments for children's programming were established by the SABC between 1975 and 1988, the Animation Unit initially headed by Butch Stoltz and the Scenic and Decor Department headed by Rodney Campbell. Campbell's department was pivotal within the context of the early development of children's content for South African television broadcast, as it was responsible for the use of live-action puppets and marionettes which were very popular in the 70s and 80s. This preference of puppetry as a medium over traditional cel-based animation was because it was cheaper to produce. Physical sets could be built faster and it was also quicker to animate and film puppets than it was to produce a 24-minute episode of hand-drawn animated material. Selected South African puppets such as Bennie Boekwurm (Bennie Bookworm), created by Butch Stoltz, and Liewe Heksie (The Lovely Witch), Sarel Seemonster (Sarel the Sea Monster) and Karel Kraai (Karel the Crow), all hand-crafted by Rodney Campbell, soon became household names around the country. *Liewe Heksie*, based on the title character of a series of books by Afrikaans children's author Verna Vels, rose to particular prominence and was soon recognised around the African continent (Shapurjee 17). However, despite this dominance of puppet based content at the SABC, the Animation Unit under the guidance of Butch Stoltz, and later Gerard Smith (an English animator who had moved to South Africa in 1969) did manage to produce some notable work including *Oceano Jollo, Wolraad Woltemade* and *Die Bremenstad se Musikante*[15], all of which were five minute long cel animations.

Another potential reason for the reduced output of the SABC's Animation Unit was that both Stoltz and Smith had experience of Disney's workflows and stylistic preferences. Stoltz had trained in London under George Merino,[16](Shapurjee 71) an ex-Disney animator who was credited with effects animation on

[15] Unfortunately there is no date listed for these productions within the SABC program archives.

[16] It is noteworthy that Stoltz first applied to intern at Alpha Film Studios under Dennis Purchase (who will be referred to later in this chapter), but Purchase refused insisting that Stoltz should instead apprentice in the United Kingdom where Purchase himself had received his training.

Snow White and the Seven Dwarves (1937), and Smith had visited the Disney studios in California where he was provided with the opportunity to observe the studio's production practices. It would appear that Stoltz and Smith both greatly admired the Disney animation model and aspired to promote it within the SABC. Stoltz's and Smith's disinterest in more economically viable limited animation techniques may have further dampened the SABC's enthusiasm towards investment in local animation.

1.4.1 Annie-Mation Studios

In 1978 Gretchen Wilsenach, who had previously been employed by Rent-A-Studio[17] , established a production house with the aim of providing animated content for the newly established SABC television network. Wilsenach managed to coax Gerard Smith to join her and Denis Purchase soon followed suit, together they formed Annie-mation. The studio produced the animated series *Bobby Cat*[18] for the SABC. *Bobby Cat* was the largest commission undertaken by the broadcasting network at that time, with its twenty-six, five-minute episodes taking the studio almost two years to complete. According to Shapurjee, this production by Wilsenach's studio was the only recorded animation outsourced by the SABC at the time, with all of its other children's programming of that period being created by its in-house Animation and Scenic and Decor Departments (81). At the same time that the studio was working on *Bobby Cat* it was also outputting commercial animation for local advertising agencies, as the broadcaster allocated small budgets and would at times also dictate content which meant that it would have been challenging for any studio to rely on it as a sole source of income (Haycock 63). Annie-mation produced many famous ads during this time frame including the massively successful Simba Chips *I wanna be a Simba Chippie* campaign (Treves). The immense success of their animated advertisements afforded Wilsenach the ability to employ more animators such as the British Butch Stoltz, the Italian Ric Capecchi[19] and the Australian Henry Neville (50). This influx of European trained animators shaped the aesthetic of the studio, creating a collective style that was very Disney influenced. By the mid-1980s the studio had begun work on two large scale projects, *Thandi,* a thirty-minute African themed story, and *Jock of the Bushveld*[20] an animated feature film. The pressure of trying to balance both of these enormous projects

---

[17] Rent-A-Studio was a graphic design studio in Johannesburg which specialised in photography, brand identity and packaging etc (Shapurjee 50)

[18] Again no date is listed for *Bobby Cat* within the SABC program archives, and Ric Capecchi, who worked at the studio during the 1980s, could not recall the date either.

[19] After the closure of Annie-mation Ric Capecchi, who had studied his craft at the Civico Instituto Del Cinema D'Animazione in Milan Italy before relocating to South Africa in 1982, returned to his own company Capecchi and Friends. Capecchi had formed the studio in 1985 as a specialist advertisement animation house which brought in additional freelance animators, such as his ex-colleague Glenn Coppens as needed. In 1992 Capecchi accepted a position in Los Angeles working for Disney Studios' gaming department on their *The Lion King (1994)* platform game. After returning to South Africa upon the completion of his contract with Disney he established Capecchino Animation in Johannesburg, which again specialized in commercials including the Cadbury Chomp, Pillsbury Green Giant, Simba Chips and Cheetos adverts. (Capecchi Interview)

[20] Jock of the Bushveld has a rather problematic production history that has become something of a local animation industry legend. The true story of Sir Percy Fitzpatrick's dog Jock was first published in 1905 and the first studio to acquire the rights to make a film adaptation was Annie-Mation, who intended to produce it as an animation, however, funding ran out before the project could be completed and it was shelved. In the early 1980s director Duncan MacNeillie re-optioned the film, once again intending to produce it as an animated feature, however, he was dissuaded and convinced that animation would prove too expensive. He later opted to produce a live-action version of the film instead, which met commercial success inside South Africa, but was denied an international audience due to anti-apartheid sanctions. In 2007 MacNeillie resolved to make the animated version that he had originally

lead to the studio hiring Glenn Coppens[21] in 1983. Coppens, who had come to South Africa in 1982 from Belgium, had studied under the famous animator Raoul Servais at the Royal Academy of Fine Arts and had later trained as an apprentice at Disney Studios in Burbank California. Coppens was hired as the studio manager, however, unfortunately for Coppens and his team, due to funding and staff issues the film was never completed and the resultant monetary issues caused the company to close (Shapurjee 51). However, by this stage, Annie-mation had already become a hub for the training and the exchange of skills by many of the best animators in the country. The exposure of animators such as Coppens, Smith and Stoltz to Disney techniques and workflows earlier in their careers had largely shaped their styles and, as such, the Disney inspired style that developed at Annie-mation would go on to have a permanent influence on South African animation.

In the culmination of her assessment of the SABC's Animation Unit Shapurjee concludes that it is disappointing that the SABC did not spend more time analysing the medium of animation and instead blindly adopted the BBC's categorisation of it as a children's-only medium (9). This failure to properly consider the full potential of animation, within a South African context, as not only a medium ideally suited to children's entertainment, but also as a tool for promoting contemporary exploration of traditional modes of art making or for the exploration of more figurative, allegorical or abstracted social commentary, has resulted in the restriction of animation to a primarily children's market. This is reflected by the SABC's more recent local commissions such as *The Magic Cellar (2006-2007)* and *URBO: The Adventures of Pax Afrika (2006-2009),* both of which began airing in 2006, and both of which are aimed at pre-teen audiences. Ultimately, the SABC's short-sightedness resulted in the loss of an opportunity to foster collaboration between its Animation and Scenic and Décor departments in the exploration of stop-motion animation as a medium for broadcast. However, despite this missed opportunity stop-motion animation would later emerge in South Africa.

---

intended, for the global audience that he had wanted, and in 2011 *Jock the Hero Dog* was released as South Africa's first entirely locally produced 3D animated feature film. Unfortunately, the film's limited budget of 70 million rand (de Waal 2011) and its small 25 person production team (Sinkins 2010), which consisted of predominantly students and recent graduates, resulted in crude animation and visuals leading to the film being largely critically berated.

[21] After Annie-mation's closure in 1987 Coppens opened his own studio. Coppens who had realised the profit potential of high quality animated commercials during his time at Annie-mation, quickly sought to establish a relationship with the SABC in which he could sell them advertising. He established a relationship which would prove to be very fruitful and he soon ran a 60 animator team with his studio open 24 hours a day, seven days a week. However, after a decade of production, the work began to dry up and Coppens was forced to close his studio in 1999 (Shapurjee, 52)

1.5 1980 - 2005, South African Stop-Motion

This subsection will provide an overview of the history and development of stop-motion animation techniques within South Africa, highlighting key practitioners as well as the American and Eastern European pioneers such as Jiri Trnka[22] and Will Vinton[23] who influenced them during the development of their filmmaking practices.

By 1915, the American animation industry had been introduced to 2D cel animation, which would quickly establish its dominance. This dominance arose as a result of Bray's tayloristic influence over the medium and the manner in which cel animation was well suited to the division of labour, while alternative forms of animation such as stop-motion were not. As a result of this disparity between the two forms of animation, stop-motion was soon marginalised while cel animation took over the competitive American market. This sectionalisation of alternative modes of animation production, outside of established studios, quickly became characteristic of the American animation industry. However, while cel animation was commanding the American market this was not the case in Eastern Europe, where animation was still being produced by small teams as a result of the European industry not yet being mechanised (Bendazzi 25). Consequently, puppet-based forms of stop-motion animation began to thrive in Eastern Europe during the 1940s, first gaining traction through works like *Tajemství Lucerny (1936)* by Hermína Týrlová[24], and later becoming a respected medium through the work of artists such as Jiří Trnka, Stanislav Látal, Břetislav Pojar and Karel Zeman[25]. Czechoslovakian animation would garner much attention and originated within the advertising industry in the 1920s, however, post World War II, it experienced a surge in popularity which is equally attributable to the nationalisation of the Czech film industry and to Jiří Trnka winning best international film at the Cannes Film Festival for *Zvířátka a petrovští* (1946) (Harvard Film Archive, 2018). Trnka's use of stop-motion inspired many other Czech filmmakers and soon a unique and distinguishable aesthetic emerged, characterised by political allegory and the use of culturally specific forms such as puppetry and wood carving.

---

[22] Jiri Trnka was a stop-motion animator active in Czechoslovakia from the 1950s. Trnka was impacted by the civil unrest surrounding him post the beginnings of communism which resulted in a distinctive style defined by his use of metaphor in order to create allegories of protest (Wells 64). He produced fourteen puppet animations over twenty years, the most notable being his final film *The Hand* (1965), which succinctly reflects his most significant contribution to his medium: the development of a culturally identifiable style and the elevation of individuated artistic expression and experimental art making influenced by Czechoslovakian puppet traditions which would inspire future animators (Bendazzi 170).

[23] Vinton is frequently credited with the popularisation of clay animation in the United States. After leaving university he began experimenting with clay animation in collaboration with Bob Gardiner, and together they produced *Closed Monday* in 1974. The animated short garnered critical acclaim, but shortly after its success Vinton dissolved his partnership with Gardiner, and founded his own studio Will Vinton Productions (Frierson 132-134). Vinton entered into a new partnership with distributor and financer Frank Moynihan of Billy Budd Films, and produced three twenty minute clay animated films: *Martin the Cobbler* (1976), *Rip Van Winkle* (1978) and *The Little Prince* (1979) (Haycock 34). The films allowed Vinton to experiment and develop his distinctive "full clay" animation style.

[24] Hermína Týrlová was a prolific Czech animator with a focus on stop-motion animation. She married Karel Dodal, one of the pioneers of 2D animation within the Czechoslovakian advertising sector, and together they produced Tajemství Lucerny (1936) the first commercial Czech animation (Fajkusová, 2013).

[25] This first wave of Czechoslovakian animators would give rise to a second generation including Jan Švankmajer, Jiří Barta and Lubomír Beneš. All of which would go on to make significant contributions within the 1980s, including *The Pied Piper (1986)* by Jiří Barta and *Alice (1988)* by Jan Švankmajer.

Furniss states that three-dimensional stop-motion animation has never been as commercially successful or as widely practised as 2D cel animation and tends to take centre stage in certain places and at certain times (Furniss 155). This is certainly true of Czechoslovakia between the 1940s and 1960s, but is equally true of South Africa in the period between 1980 and 2005. During this period the local animation industry mirrored its European counterpart, establishing small studios consisting of a handful of artists who focused on experimental puppet based animation (Haycock 17). Due to the fact that the South African animation industry was still underdeveloped as a result of the lull in animation production between the 1920s and 1940s, and the SABC's disinterest in investment in animation in the 1970s, a hybrid environment emerged within which small studios formed and artists were trained. These studios included: Klaybow Films, XYZoo and Triggerfish. All of which functioned both as commercial studios which attempted to emulate certain mainstream European or American production conventions, but at the same time were essentially run as independent entities due to a lack of external funding. This distinctive animation landscape, from which South African stop-motion originated, resulted in the aforementioned studios embodying characteristics of both independent and mainstream animation production. It is helpful here to refer to Wells' categorisation of animation as either orthodox or experimental in order to define both independent and mainstream production.

Mainstream production is characterised by:

- A reliance on linear Narratives
- Set formats or time frames
- The establishment of pipelines and the tayloristic division of labour
- The absence of the artist
- Adherence to stylistic conventions and standardised practices
- Significant production costs requiring large audiences in order to make profit

While independent production is characterised by:

- "Specific non-continuity" (Wells 43) of narrative
- Divergence within its format
- Small teams or individual efforts
- A recognition of individuality and a strong sense of authorship
- Multiplicity of style and the "evolution of materiality"(Wells 45)
- Small budgets and content often created for niche demographics.

Upon considering these distinctions it is clear that the work produced by the stop motion studios operating within Cape Town during the period between 1985 and 2005 exhibit hallmarks of both taxonomies. Namely a preference for linear narrative, adherence to set formats and time frames, the establishment of pipelines and production practices (,but those centred around small teams and individuals), a strong artistic presence and focus on individual contribution, an evolution of style and

aesthetic derived from culturally specific signifiers, or enforced by other environmental factors such as a lack of training or equipment, small budgets and predominantly local audiences.

1.5.1 Klaybow Films & XYZoo

In his critical history of stop-motion in South Africa, Andrew Haycock asserts that the stop-motion animation produced by international auteurs such as Vinton and Trnka influenced the development of animation in South Africa in the 1980s and 1990s. Haycock states that there is no evidence to suggest that any significant stop-motion animation was produced in South Africa before 1981 (57), but that during the 50s and 60s the arrival of several prominent European animators greatly influenced South African animation practices, and as such, 2D cel animation rose to the fore. However, in 1981 a Romanian by the name of Ted Berenson established a stop-motion studio in Cape Town, which he called Klaybow Films. Berenson began employing and training young South African artists, exposing them for the first time to the stop-motion work of innovators such as Jiri Trnka (57).

Berenson had studied theatre and drama in Italy, where he developed an interest in puppetry before relocating to South Africa and seeking employment with the SABC. However, Berenson quickly realised that the network was distorted by censorship (Haycock 59) which prompted him and his wife to form their own studio. Klaybow's first official clay animation production, *Madam and Steve* (1981), was a satirical rock music reinvention of the biblical narrative of Adam and Eve while their second animation, produced that same year, was a one-minute pilot for a children's television series which they successfully pitched to the SABC. The final series consisted of thirteen, five-minute episodes, and was entitled *The Adventures of Dr Kleiman*. It was followed the next year by a further thirteen episodes for season two: *The Wonderful World of Dr Kleiman* (1982). During the creation of the two Dr Kleiman series, Berenson came to the realisation that he needed to expand the studio. However, he faced a dilemma as at that time South Africa lacked institutions providing specialized training in animation. Berenson began looking for artists he could teach, providing an opportunity for aspiring South African artists such as Philip Marcus, Gary Kachelhoffer, Brett Shuman and Lindsay van Blerk (Haycock 58-61). He borrowed 16mm prints of stop-motion animation from the Cape Provincial library, which had a large collection of animation provided by the National Film Board of Canada. This allowed Berenson to overcome the boycotts against South Africa at the time (Haycock 62) and to expose his animators to a diverse array of work including that by Jiří Trnka, Norman McLaren and Will Vinton. Through studying these films Berenson taught his staff about the principles of animation and the rules of filmmaking, and as such the work of international stop-motion pioneers became the foundation for the development of a studio aesthetic at Klaybow.

Although the studio faced significant technological challenges most frustrating for Berenson was the difficulties associated with working for the SABC as the small budgets which the broadcaster allocated and its tendency to censor content, especially any that included Afrocentric material or that was intended for an African audience (Haycock 63), created many stumbling blocks. However, despite these restrictions, Klaybow managed to produce two series for African audiences. The first consisted of

thirteen, ten-minute episodes and was called *Monna we Letsopha* (1983). It was produced for the Xhosa channel and featured a clay magician assisting people in his community. The second was a series comprised of twenty-six, five-minute episodes produced for Channel 3 named *Tempodieks* (1984-1985), in which three African musicians travelled the world discovering new musical instruments in every country (Haycock 63). By this stage, Klaybow Films had grown into a fairly large studio and in 1985 employed a total of ten, full-time staff as well as hiring freelance artists during pre-production and owning the only motion control rig in the country. The studio had officially established a reliable and sustainable infrastructure allowing them to begin their most significant work *Bimbo's Books* (1985-1987). Each episode followed the same formula: a stop motion introduction centred around talking bookends would launch the narrative before the world turned into two-dimensional animation and a contemporary reinvention of a classic children's fable unfolded, narrated by the bookends. The series consisted of thirteen, fifteen-minute episodes for the SABC's English channel (Haycock 64-65) and is very reminiscent, in terms of its subject matter, to works by Trnka such as *Story of a Bass (1949)* or *A Midsummer Night's Dream (1959),* both of which reexamine existing fables. Although *Bimbo's Books* provided the studio with a lot of exposure, the money earned from it was just enough to keep the studio running as the SABC controlled all the ownership rights of any work they commissioned. Berenson soon realised that the SABC's limited budgets and censorship of content were not going to facilitate any further development of his studio, and he began looking to develop other projects for the international market, before eventually closing his company in 1988 (Haycock 67).

The 1990s[26] saw massive reform of the South African television and animation industries. Shapurjee states that this period ushered in a "new era in South African broadcast history" and saw the restructuring of the SABC, which developed a new policy regarding "local content, and cross media ownership and control" (81). This shift saw the emergence of animation training initiatives across Africa "in an attempt to empower Africans with new media skills" (Shapurjee 82) and resulted in the establishment of a number of small studios. Yet, despite this growth within the industry, the SABC's new broadcast model resulted in a decrease in the number of local animations commissioned by the broadcaster which instead, opted to purchase older American television animation which could be acquired more cheaply than commissioning local animation productions (Shapurjee 31). Consequently, the animation industry was forced to return to the production of commercials. The advertising sector was made even more alluring to local animation studios by the lifting of international sanctions and boycotts, which allowed South African studios to once again do business with international clients. Resultantly, the landscape of South African animation in the 1990s can be characterised by the "appearing and disappearing" of tiny independent animation studios, as a result of a relatively small, competitive market (Collins 31-32).

[26] The 1990s were a tumultuous and critical period in South African history, during which the country went through significant political, social and economic reform. In 1990, then president FW de Klerk announced the lifting of the ban on political parties such as the African National Congress, which had opposed the ruling National Party, and the release of Nelson Mandela from jail. A period of social and political reclamation followed, leading to South Africa's first democratic elections in 1994.

One such company was XYZoo, which was established in 1990 by Lindsay van Blerk. Van Blerk had been one of the artists employed by Klaybow Films and in 1989 after the closure of the studio, he was forced to return to South Africa joining Miros Productions as an animation director. During this period he produced several clay animation commercials and came into contact with Jacquie Trowell who was employed as a set designer. At the same time Frank Moynihan , an American producer who had worked first with Will Vinton and later with Klaybow Films, contacted van Blerk whom he had met whilst van Blerk was still employed at Klaybow. Moynihan commissioned van Blerk to produce an eight-minute clay animation short film entitled *The Prodigal Son*. Whilst waiting for the Moynihan deal to be finalised van Blerk left Miros and set up his own studio, taking Trowell with him, and also employing Brett Schuman, whom he had worked with at Klaybow (Haycock 79-80). XYZoo was formed, and very quickly carved a niche for itself producing stop-motion animation for local advertising agencies. Van Blerk realised that he needed to expand his studio, so he began training Trowell as an animator showing her the same stop-motion films that Berenson had shown him as a young animator and teaching her the principles of performance (Haycock 80). Over the following decade, XYZoo Animations would produce four, twenty-four minute long films for Frank Moynihan and Billy Budd Films: *Michael The Visitor* (1995), *The First Christmas* (1998), *The Chimes* (2000) and *The Velveteen Rabbit* (2003). In his interview with Haycock, Van Blerk explains that these films were made “intensively and continuously for a long period of time” and that because of this, the level of character animation achieved by XYZoo was elevated (85).

1.5.2 Triggerfish (1996-2005)

While Van Blerk and his studio produced some of the finest character animation that had come out of South Africa at that time, the aesthetic of their films, as a result of a Christian American audience demographic, lacked any distinctive South African elements in their narratives or visual design elements (Haycock 93). However, another studio would emerge and accept the challenge of attempting to establish a distinctive and culturally specific South African stop-motion aesthetic. Under Van Blerk’s guidance, Trowell had not only learnt the principles of animation, but had also been greatly influenced by artistic risk takers like Norman McLaren and Jiri Trnka, and she had begun experimenting in her own work with alternative materials (Haycock 93). In 1996 Trowell left XYZoo and partnered with Emma Kaye[27], forming Triggerfish Animation. Kaye and Trowell identified the potential for creating a niche within the fractured animation market through the development of a stop-motion studio with a culturally specific production aesthetic (Haycock 100).

Trowell set about producing animations with various stop-motion techniques and styles with the aim of experimentation and diversity. During this time Triggerfish created several widely known commercials such as: *Soviet Clothing* (1997), *Plascon Woodcare* (1998), *Royco Potato Bake* (1999), *I-Net Bridge* (1999) and *Slo-Jo* (1999), as well as a pilot for a feature-length stop-motion film titled *One Hot Day in Africa* (1998). Triggerfish was making use of techniques and styles that had not yet been widely seen in

[27] Emma Kaye had previously been working as a produced in the live-action sector (Haycock 99)

South Africa, including pixilation, the use of solid wooden puppets, and the incorporation of locally produced tourist craft constructed out of wire, beads, plastic shopping bags and tin cans. They also began using clay animation in innovative ways steering away from the detailed, recognisably American character performances associated with XYZoo, and instead opting for more stylised characters. This quickly earned Triggerfish a reputation as an innovative and distinctive South African animation studio. The studio expanded and hired new artists such as Jane Applebee, who contributed considerably to the development of the studio's distinguishable style (Haycock 102-103).

Triggerfish's reputation as an innovator attracted the attention of *The Children's Television Workshop*, which was looking to outsource animation for the American children's educational show *Sesame Street* in order to reduce costs. In 1999 Triggerfish were commissioned to produce a total of twenty animations, each between twenty and thirty seconds in length. Kaye and Trowell were quick in recognising *Sesame Street* as the ideal platform for experimentation with local materials and cultural signifiers and began to reference local street art as an iconography central to their production design. The Children's Television Workshop were so enamoured with the results that the following year they released a South African version of *Sesame Street* named *Takalani Sesame*. Again, Triggerfish were commissioned to produce further stop-motion shorts in collaboration with The Video Lab (Haycock 104). Haycock reports that Triggerfish's artistic aim on the *Sesame Street* project was to fabricate puppets that were based on the street arts and crafts sold at local markets, as such developing an aesthetic that was distinctly South African. Local street art typically includes the creation of wireframe armatures decorated with tin, beads and plastic shopping bags. Puppets incorporating this sort of construction and aesthetic began to populate the teams' sets alongside clay based puppets like the recurring characters Red and Buggley. Triggerfish's success peaked in 2001, when the studio was commissioned to produce forty minutes of animation for a second season of *Takalani Sesame (2000-2005)*, the single largest international animation commission ever received by a studio in South Africa, which required Triggerfish to subcontract other South African studios to produce animation for the series (Haycock 104).

Prior to the acquisition of the *Sesame Street* projects the South African industry had been focused on production for the advertising sector, with many companies disillusioned by dealing with the SABC and resigned to outputting animation for commercials, but the large scale, international pedigree and success of Triggerfish's work for the *Children's Television Workshop* reignited interest in pursuing feature film and series work and altered the animation industry landscape with new studios and specialised training centers establishing themselves. Over the next few years Triggerfish continued producing commercials as well as several more series of stop-motion animation for Sesame Street.

1.5.3 Sunrise (1998 - 2004)

During the late 1990s and early 2000s, at the same time as Triggerfish were developing their stop-motion repertoire in South Africa, Sunrise Productions came to life in Zimbabwe establishing itself in 1998 through the partnership of Phil Cunningham and Roger Hawkins. Cunningham was born and grew up in Zimbabwe, his family were all involved in the local agricultural industry, primarily working as traders, and he had no connections to the film industry at all. However, from a young age Cunningham had a passion for storytelling, and as a child spent much of his time writing and illustrating graphic novels centred around his hometown of Harare. After completing high school he enrolled in university in Pietermaritzburg, where he studied agriculture, but during Cunningham's tertiary education South Africa was immersed in political unrest, accompanied by the escalation of violence and racial tensions which preled the eventual fall of the apartheid government. This period of South Africa's history can also be categorised by the emergence of resistance artists across multiple disciplines, including film and animation as in the work of William Kentridge. It was within this socio-political environment in which Kentridge, an independent animator who decisively resisted standardised industrial approaches to animation, was at the forefront of contemporary South African art that Cunningham's love of storytelling would evolve into a fascination with the power of cinema to effect social change. He was struck by the power of movies to influence society in a time when the South African political landscape was shifting and transforming, "what really struck me was ... how powerful stories were, and so I just became fascinated with that, and I started to think stories are like Trojan horses, because for whatever reasons people have their own defence mechanisms, and stories have got a way of getting under defence mechanisms for good or bad actually" (Cunningham). Cunningham's belief in the power of film to influence societies, and the fact that it informed his interest in animation as a medium, is just as indicative of the independent animation produced by artists like Trnka (who also realised animation's potential for political commentary) as Triggerfish's focus on materiality and the incorporation of cultural signifiers within the fabrication of their puppets and sets was.

After university Cunningham started his own agricultural business and began trading commodities all over Africa, in particular with Tanzania and Nigeria. His business was thriving, but the allure of cinema had been nagging at Phil since his student days and now with capital at his disposal he decided the time was right to invest in his dream and began developing a children's story, that he had written with his wife Jacqui, for production into a feature film.

Zimbabwe's political climate at the time of developing the script for *The Legend of the Sky Kingdom (2003)* is important to note as it had a massive impact on the economy and, as such, on the development of Sunrise as a studio. Zimbabwe was emancipated from British rule and given its independence in 1980 when it was renamed from Rhodesia to Zimbabwe. The new Constitution created a duality of governance with the President acting as Head of State and the Prime Minister as Head of Government. Reverend Canaan Banana served as the first President and Robert Mugabe became the first Prime Minister. The newly independent country was soon faced with politicians jostling for control of its government, and unrest ensued between the two leading political parties: ZANU (Zimbabwe African

National Union) and ZAPU (Zimbabwe African People's Union). In 1987 Mugabe was elected president and in 1988 the constitution was amended in order to abolish the position of Prime Minister. Mugabe's primary objective was to repair the country's failing economy, his economic policies included the erection of schools and clinics for Africans, and the reclamation of white-owned land, without compensation, in order to equalise the economic playing field between white and black citizens. By 1996 Mugabe's decisions had begun to create unrest and there was further discord instigated by high inflation and his refusal to amend Zimbabwe's one-party constitution. By 2008 civil tensions had escalated to such a point that Mugabe lost the presidential election to Morgan Tsvangirai, leader of the opposing Movement for Democratic Change party, however, Mugabe was unwilling to cede power and demanded a recount. This resulted in a runoff election in which he maintained his hold on the presidency, inciting violent protests and leading to the death of eighty-five people and the injury of thousands more (McDowall 2008).

It was during this period, in the late 1990s, that Cunningham partnered with a director named Roger Hawkins. Hawkins, also born and raised in Harare, had resigned from his job as a maths teacher a few years earlier in order to stage a musical which he had written and directed. The production, entitled *The Singer* (1993), was a resounding success and bolstered by this achievement Hawkins decided to pursue a career in the performing arts. It would be Hawkins who would conceive of the idea of referencing local street art made from wire, beads, old bottle tops, cans, and other recycled commodities like copper wire, rubber, old bolts and nuts. The decision stemmed from two factors: firstly the found object aesthetic allowed the filmmakers to work within a limited budget which was necessitated by Zimbabwe's economic situation, and secondly the conversion of reclaimed and reinterpreted objects into a visual language (widely observed within Zimbabwean and South African street art), allowed for a cinematic aesthetic that was culturally identifiable. In addition to this stop-motion presented a lower, more accessible technological entry point for first time filmmakers, "Hollywood obviously had this big Pixar machine and CGI machine, so we thought well one thing they don't have is African art, street art, and stop-frame...we thought marrying the lower technological barrier of entry together with that art form seemed appropriate, ...it was authentic and felt African...so it seemed a good way to enter the market" (Cunningham).

With a script and a proposed production design aesthetic Hawkins, Cunningham, and his wife Jacqui formed Sunrise productions and together they started to work on *Legend of the Sky Kingdom (2003)* in 1999. Production ran until 2002, with the film being licensed for distribution in 2003 by Videovision who negotiated worldwide distribution rights, making it Africa's first full-length stop-motion feature film (Cunningham). Cunningham recalls his company's stop-motion origins fondly, stating that those stop-motion roots were pivotal for Sunrise's later development into a competitor on the CG landscape, as the medium provided an ideal training ground for artists to learn (in much the same way as Jacquie Trowell and her team did) about the principles of lighting, staging and camera work at a much slower pace, and in a way that was less consequential as artists were afforded time to learn from and amend their mistakes due to the slower pace of filmmaking. Cunningham also learnt a lot about the process of script development too and he identifies the need for narrative refinement as one of the central issues why,

despite the film faring exceptionally well at animation festivals placing fifth overall at the 2003 Annecy International Animation Festival, and also making official selection within numerous other international festivals, it didn't flourish as readily in commercial terms. Cunningham attributes this disparity between the film's critical acclaim and meagre earnings, to recognition of its "junkmation"[28] (Horrocks 2003) aesthetic as an innovative and original art form, while he feels that the pacing of the narrative was problematic and dampened audience reception.

After tasting critical success with *The legend of the Sky Kingdom (2003),* and having entirely self-financed the film, Cunningham decided to commit full time to filmmaking. He closed his agricultural business and began experimenting with CGI tests, believing that computer-generated animation could provide freedom for further experimentation and that it would allow faster production of smaller episodic animations which would provide an opportunity for the studio to further its narrative development and distribution methods.

1.6 AARPA, the University of Utah and The birth of CGI

CG animation often proves a much more difficult medium to wrangle than traditional 2D animation in terms of compiling a comprehensive history, as its development did not follow a simple linear progression. 2D animation followed a much more intuitive path, beginning with zoetropes, then peg registrations systems, cels, rotoscoping and finally sound and colour. Everything about this progression feels calculable and expected, whereas the evolution of CGI was a lot less predictable. For a start, there is no single, central eminence that can be pinpointed as single-handedly escalating the advancement of the medium (Sito 2-3). Yes, studios like Pixar, ILM and Disney made massive contributions to the field, but these contributions are different to the more distinctly singular impact that innovators such as Eadweard Muybridge or Walt Disney had on traditional cel animation. The progression of 3D animation rather than being furthered linearly began as a series of separate and yet interconnected avenues of research and development at various universities and production companies around the United States.

In the same way that wartime investment and post-war socio-economic factors shaped the evolution of traditional animation practices and aesthetics, the beginnings of CG animation development can be linked to government investment into military advancement. In 1957 the Soviet Union successfully launched Sputnik, the first orbital satellite and the space race began with the United States inaugurating the Advanced Research Projects Agency (ARPA) in order to fund and oversee the advancement of innovative technological research. Many of the computer science breakthroughs required for the advent of CG animation, such as the invention of data storage and graphics displays, took place as a result of ARPA funding, but perhaps the real dawning of the age of CGI began with a PhD dissertation at MIT, by a postgraduate student named Ivan Sutherland. In 1962 Sutherland created the software Sketchpad, a

[28] A terminology coined to define the unique style of puppet and set construction developed by Sunrise Productions in *The Legend of the Sky Kingdom (2003).* The first recorded usage of the term appears to have been in the October 2002 issue of *Animation Magazine,* in an article showcasing the production team and the making of the film.

program capable of using a light pen to digitise drawings created by a user and display them on screen. Unlike existing graphics software that had come before Sketchpad, it was revolutionary in that it allowed interactivity and did not rely on the inputting of numerical data. This resulted in the first recorded occurrence of kinematics, the basis of modern CG animation (Sito 39-42).

At approximately the same time as Sutherland was pioneering the development of his Sketchpad software, the University of Utah's computer science department was founded by Professor David Evans. Evans had a background in both physics and electrical engineering and had previously worked for Bendix Aviation Electronics, where he had served as a project manager in 1955 and had developed, arguably, one of the first ancestors of the personal computer the Bendix G-15. In 1965, Evans moved to the University of Utah in order to start their computer science department and later recruited Ivan Sutherland as a colleague. Together Evans and Sutherland created a faculty that promoted autonomous and daring research and a company that produced and sold computer hardware to support that research. The resultant environment fostered the development of a number of young pioneers of the CGI industry[29], most conspicuously Ed Catmull (Sito 128-134) who would go on to become Pixar's Chief Technical Officer and eventually the company's president.

1.6.1 The Birth of Pixar

By the 1980s Disney had begun to flounder slightly post the death of its autodidactic director Walt, and the company decided to take a gamble on the visual effects heavy concept for *Tron* (1982). The project was incredibly ambitious and became a landmark in CG innovation, however, uncertainty over how to market this new breed of film and the fact that it was released amidst a flurry of blockbuster movies that same summer resulted in disappointing box office returns which, in light of the level of investment required, dissuaded Disney executives from further investment into CG animation and they began shelving all CG projects under development. This included the concept for the first CG animated feature, *the Brave Little Toaster* (Sito 165). With the rejection of *the Brave Little Toaster* came the retrenchment of John Lasseter, who had been the driving force behind its pre-visualisation and conception, and in 1983 Lasseter joined LucasFilm. Ed Catmull had been employed at LucasFilm since 1979 and he saw in Lasseter an artist who understood visual story and performance and immediately tasked Lasseter with exploring the possibilities of animated character performance. The first test short created, *The Adventures of Andre and Wally B (1984),* was screened at Siggraph in 1984 to critical acclaim. However, unfortunately, the groundbreaking CG animation that Catmull and his team were achieving brought in little income and it soon became clear that George Lucas was preparing to close his computer department's graphics division. Catmull began looking for an exit strategy and in 1986 he found it when

[29] Alumni include Henri Gouraud who would go on to envision a method for surfacing wireframe objects, Tuong Phong who was the first to conceptualise a method for creating realistic illumination on 3D objects, and Alan Kay who created object-oriented programming.

Steve Jobs bought the department for 5 million dollars (plus a further 5 million in upgrades), rechristening it Pixar Inc (Price 53-56).

The initial identity of the company was as a hardware manufacturer, constructing and distributing the Pixar Image Computer to clients such as The Walt Disney Studio, before refocusing its attention on the development of software for artists[30] as well as the dedication of a small team of animation artists to the production of promotional films that brought in no profit and were designed to bolster the sales of the Pixar image computer. The first notable contribution to these films was *Luxo Jr (1986),* which was produced in 1986. Screened at Siggraph it was a massive success as it demonstrated, for the first time, that true characterisation and performance could be achieved within the medium of computer-generated 3D animation. Despite this success though, Pixar was still running at a loss (Maltin 286-289), however, its next production *Tin Toy* (1988) became the first CG short to win an academy award and served to spark Jobs' interest in the commercial potential of CG feature film animation. Despite numerous issues in the film's technical execution, resulting from its complexity and the limitations of the technology available at the time, the short seemed to incite audience excitement for the prospect of naturalistic computer-generated human movement, and certainly caught the attention of Disney CEO Michael Eisner, who entered into a development partnership with Pixar on their new Digital ink and paint software (Price 94-98).

1.6.2 Disney Tests the CG Waters

During this period Disney themselves had begun experimenting with the involvement of CG elements within their animated features, *The Black Cauldron* (1985) became the first animated feature film to include CG elements such as bubbles, magic effects and a floating boat. Shortly thereafter, *The Great Mouse Detective* (1986) included an impressive 3D fly-through sequence and in 1989 the new Disney Pixar CAPS system[31] was completed and *The Little Mermaid (1989)* became the first animated feature to contain digitally painted shots. The 1990s brought with them the Disney Renaissance, in which 2D animated feature films enjoyed a box office revival, however, CG animation was more and more frequently incorporated. *Beauty and the Beast (1991)* famously used the CAPS system to seamlessly integrate 2D and 3D elements in order to create the illusion of dynamic depth, in the now iconic ballroom dance scene, and in *The Lion King (1994)* the animation team once again turned to the CAPS system and its 2D / 3D integration capabilities, in order to create a stampede of CG wildebeests (Furniss 347-348). During all of this sustained involvement with Pixar in the development of Disney's own 3D animation and digital ink and colour tools, as well as Disney's growing utilisation of 3D components within their 2D productions, Peter Schneider then director of Disney, was becoming more and more open to the

[30] Some CG animated commercials were also produced during this time, including those for Listerine and Lifesavers.

[31] The Computer Animation Production System (CAPS) was designed in the 1980s and was the the product of a partnership between Disney and Pixar. It was a digital ink and paint system, the first of its kind, and was designed to replace the costly and time consuming process of transferring animated drawings to cels. The CAPS system allowed for rransparent shading, blended colors, and an unlimited palette, none of which had been available before.

idea of Disney's involvement in the production of a 3D animated feature film. In 1990 Schneider approached Pixar, and by 1991 a deal had been struck for the development of three feature films (Price 117-118).

When *Toy Story* finally premiered in 1995, after years of tumultuous development involving more than one rewrite, it was received with universal celebration and acclaim going on to make 365 million dollars internationally, and billions of dollars via toy merchandising and ancillary licensing (Sito 260). The Disney Renaissance was drawing to a close and the Pixar age was dawning. A new storyline went into development and work began on the concept phase of *A Bug's Life* (1998), soon followed by *Monster's Inc* (2001) and a further string of box office successes.

1.7 The Beginnings of South African CG

Pixar's monumental success of course did not go unnoticed and soon other big players in the movie industry began opening CG Animation studios, including Dreamworks SKG and Blue Sky[32]. South African studios would follow suit, but CG feature film development occurred slowly in comparison to the explosive growth of the American industry as a result of a considerably smaller market and a lack of funding and skills development. The United States CG animation model had evolved from an already well-established traditional feature film model while in South Africa there was no local feature film structure from which to draw, so CG animation evolved from a small and fragmented industry which was primarily defined by stop-motion animation at the time, and almost entirely geared towards servicing the advertising industry. However, despite this climate during the 1990s and 2000s, several studios would make notable contributions to the field.

1.7.1 Digital Direction

In 1984 desktop publishing (DTP) was an innovative new technology that was being adopted at various advertising agencies and publishing houses around South Africa. It was during this time that Hilton Treves, who up until then had been employed as a programmer for a local pharmaceutical company, became intrigued by its potential and left his job to seek employment with Punchline, a local computer sales company which was importing the first series of Apple Macs. The Mac introduced a graphic interface and by 1985 Apple had recognised the potential of Adobe's Postscript language[33], a computer language which facilitated the control and manipulation of typefaces and vector art, and had invested in it as a control system for the new Apple LaserWriter allowing the printer to output typeset pages of a quality

[32]Dreamworks SKG, which was opened in 1997 via the partnership of ex-Disney employee Jeffrey Katzenberg and Steven Spielberg. Dreamworks would produce the world's second fully CG animation feature film *Antz* (1998) after accumulating Pacific Data Images, however, it would be their second feature film *Shrek* (2001) which would cement them as a major competitor for Disney and Pixar. In 1999 Warner Brothers joined the 3D rat race releasing *The Iron Giant,* which amalgamated both traditional 2D and 3D elements and that same year 20th Century Fox bought visual effects Company Blue Sky and repurposed the studio, readying it to begin production on its first CG animated feature, *Ice Age* (2002) (Furniss 379-384).

[33] The postscript language was developed for Adobe by john Warnock who had begun research into its viability in the mid seventies whilst employed by Evans and Sutherland.

rivalling reproduction houses. Through Treves' employment at Punchline he discovered a new piece of software, Aldus Pagemaker. Pagemaker, also based on the Postscript language and developed by Paul Brainerd in 1985, was the first readily available piece of DTP software and it was shipped with the Mac. For a period of two years Apple held the exclusive rights to Adobe's Postscript language which caused the Mac to become the darling of the South Africa reproduction industry, with local print houses like Beith and Colours Reproduction quickly adopting it into their pipelines (Treves).

One of Punchline's clients during this period was South African Airlines, who had purchased a flight simulator from Evans and Sutherland in order to train pilots on the 747. The flight simulator was comprised of a dedicated graphics engine linked to a motion based simulator and Treves and his colleagues were invited to see a demonstration. Upon viewing the simulator in action Treves was convinced that the future would soon be defined by a computer graphics revolution and resolved to become a part of it. By 1988 Treves had become fascinated with the potential applications of computerised graphics and travelled to Boston Massachusetts in order to attend the annual Siggraph conference where he met Nigel Mcgrath who had, along with Stephen Bingham, Susan McKenna, and David Springer, formed a company called Alias Wavefront[34] in 1983. Mcgrath was there to demo their latest offering: Alias Animator 0.9 (a beta version that had not yet officially launched) which had been developed for Silicon Graphics workstations (Treves).

During the early 1980s there was no mainstream access to personal computers in South Africa. The desktop publishing that was being undertaken locally was being done on supercomputers produced by companies like Symbolics, and the finite amount of research that was occurring in the field of 3D digital graphics in South Africa was happening in the form of rudimentary CAD sketches for architecture, and visualizations for mine surveying. However, this all changed when Silicon Graphics started the Iris Personal Workstation series, which was launched at Siggraph in 1988. The workstations boasted 12 megahertz of processing power, could handle 32 gigs of ram and contained the first OpenGL graphics cards outside of a supercomputer scenario (Treves). The Iris' graphics capabilities were revolutionary as it was capable of generating real-time 24-bit colour and realtime polygon manipulation, which meant that almost overnight it surpassed other Linux based workstations as the computer of choice for 3D applications and VR research. Over the next few years the Iris would be utilised in the creation of James Cameron's *The Abyss (1989)* and *Terminator 2 (1991)*, and Steven Spielberg's *Jurassic Park (1990)* earning it a CG pedigree of note.

Treves returned to South Africa fixated on the possibility of research and development into computer graphics in South Africa. The Personal Iris series' predecessors had sold for approximately $1,000,000 per unit, however, the Iris was available for purchase at $150,000 per unit making it feasible for South Africans to consider the possibility of owning one as the exchange rate was, at that time, comparatively

[34] Alias Wavefront would later go on to become what is now known as Autodesk Maya, the industry standard for 3D animated production

favourable. Shortly after his return to South Africa Treves saw the launch of the SABC's news channel *Network,* which featured an animated 3D logo reveal for its intro, and he enquired as to which company had produced the logo learning that it had been created by a London based studio for 800,000 rand (which at that time was an exorbitant sum). Treves sold his house, pulled his savings and convinced various family members to assist him in financing a small start-up company, he purchased two Iris Personal Workstations at approximately $600,000 each, two Alias licenses at $250,000 each and officially launched his first studio in 1988. The studio was named Dreamwave and it was the first registered, fully computer-generated production studio in South Africa (Treves).

With Dreamwave established Treves partnered with another South African filmmaker named Don Searle. Searle had just returned from the United States after working with Wavefront and the two began canvasing the local broadcasters for work. One of their first jobs was an ident for MNET, which had recently launched its Open Time[35] slot. The ident included a 3D can which flew into screen, popped open and revealed a 3D logo. At that time all of the lower thirds, titles and graphics work for local broadcasters were being outsourced to the United Kingdom at great cost (the BBC still held massive influence over the SABC) and Treves aggressively pursued these contracts eventually landing a CAD contract. Through his exposure to broadcast work Treves met artists like Gerard Smith. Smith's Disney training and knowledge of traditional animation greatly impressed Treves, "Gerard was the most amazing character. He stood like an animated character, he walked, talked, posed like an animated character. It was like his whole being had been infused by it" (Treves). Smith introduced Treves to his ex-Annie-mation colleagues Ric Capecchi and Glenn Coppens, who Treves still affectionately refers to as "the godfathers" of South African 2D animation.

Unfortunately, without any work from local broadcasters and with advertising agencies still believing that 3D animation was a fad that would pass, the work needed to sustain Dreamwave was not forthcoming and Treves was forced to liquidate his studio, "it was early pioneering...that was quite an amazing time, because everything was phenomenal, but there was no work, everybody was too scared to spend money, advertising didn't spend money, you fought like hell for every single thing and (we) eventually got to a point where we couldn't keep the business open" (Treves). However, out of the liquidation of Dreamwave arose a second opportunity when a financier associate of Treves' decided to assist him and bought his equipment allowing him to start a second studio: Digital Direction in 1990.

The South African industry was beginning to take notice of CG as a viable medium and Digital Direction managed to obtain some commissions for CCVTV and MNET, including the *Carte Blanche* and *Supersport* Logos[36]. The logos prove successful and recurring MNET commissions became the company's mainstay, "for a long time we were busy doing a lot of station identity, where computer graphics was being consumed was primarily in that, it hadn't even really got into television advertising

[35] MNET, a multichoice brand, was South Africa's first private television broadcast channel and Open Time referred to the week day time slot between 5pm and 8pm which would be open to non-MNET subscribers as well.
[36] Carte Blanche is a long running South African investigative journalism series while Super Sport is the country's most popular series of sports channels.

yet" (Treves). The studio's first big break came in the form of a CG animated commercial for Volkskas bank[37] in 1991. The ad centred around a Nautilus shell on the beach, which fabricated itself along a spiral curve reflecting growth in terms of compound interest. It was South Africa's first fully CG commercial and it attracted a lot of attention including Volkskas requesting another commercial the following year. This second commercial centred around the passage of sand through an hourglass, sadly these early works appear to have been lost with the exception of one piece of work which was produced for BMW's *Sheer Driving Pleasure* campaign in 1993.



Fig. 1. Still BMW *Sheer Driving Pleasure* Campaign, Digital Direction & The House Next Door, 1993.

1.7.2 The House Next Door

In 1989 (one year after the establishment of Dreamwave) another studio capable of producing computer-generated animation opened its doors in Johannesburg. The House Next Door, which derived its name from the fact that the studio was next door to both Digital Direction (originally Dreamwave) and The Video Lab Group[38] (previously Killarney and then Irene Studios), was established by Shirley Sunter. Sunter had begun her career as a colorist and telecine suite operator, but had since made the shift into computer graphics. The House Next door owned a Bosch FGS-4000 CGI, the same system used to produce *Tron* (1982) and the infamous Dire Straits music video *Money for Nothing* (1985) (Heigan). Sunter's studio had equally ambitious ideals and Treves states that both studios had been influenced by James Cameron's *The Abyss (1989),* and its groundbreaking pseudopod scene. These lofty aspirations lead to The House Next Door pitching a commercial to BMW in which a liquid drop of Mercury caressed the

[37] In 1991 fearing backlash as a result of its earlier ties with the oppressive National Party, Volkskas merged with the United Building Society, Allied Building Society and Trust Bank emerging as Amalgamated Banks of South Africa or ABSA.

[38] The Video Lab was at the time one of the biggest post production facilities in South Africa, run by Mike Smit.

contours of a woman's body as it travelled down to settle in her navel. Unlike Digital Direction which had opted for Alias software, The House Next Door had elected to use Thomson Digital (TDI) software and, through their connection with TDI, Sunter managed to bring out a Polish artist and software engineer by the name of Bela Brozsek. Brozsek had been working for Digital Domain at the time and was an adept programmer fluent in a language called LISP, the foundation of all AI languages. LISP was unique at that time as it was able to program objects within a scene to become aware of other objects, which would prove necessary for the BMW commercial as collision systems did not yet exist at this time. Keith Rose[39] was brought in to direct the live-action component of the commercial and The House Next Door and Digital Direction partnered in order to produce the CG animation required, which involved the production of a mercurial drop of liquid that fluidly changed its shape as it was translated. During filming the team projected a grid over the actress' body in order to provide exact coordinates that Brozsek could use to map the path of the Mercury Droplet. The liquid Mercury commercial prove to be an immense success winning the Golden Lion at Cannes and leading to expansion for both Digital Direction and The House Next Door.

Shortly after the BMW campaign came another opportunity for CG integration, via the Simba Chips *Roar with Flavour* Commercial which was produced by Digital Direction in the early 1990s[40]. The commercial featured the amalgamation of a traditionally animated character, for which Treves enlisted the help of Glen Coppens and a computer-generated three-dimensional environment. The *Roar with Flavour* animation is representative of the animated commercials produced during this period, which relied on either integrating CG animation with live-action or traditional animation. As a result of this multi-media approach European animators, such as Gerhard Smith, Glenn Coppens and Riccardo Capecchi, all became involved in the local CG Animation industry (Treves). As such, the training which the three had received in Europe from retired Disney animators began to influence local CG animation production too, which can clearly be seen in the work produced in service of the advertising sector by studios such as Luma[41], BugBox[42] and BlackGinger[43] within the early 2000s.

[39] Keith Rose, who passed away during the writing of this research report, was one of the most successful and prolific directors within the South African advertising industry.
[40] Treves could not recall the exact year.
[41] Luma is a Johannesburg based production studio which specialises in CG character animation and which was started in 2001 by Paul Meyer.
[42] Bugbox, also a Johannesburg based studio specialising in character animation was established in 2003 by Tim Argall.
[43] BlackGinger, a Cape Town based CG and VFX Studio was founded in 2005 by Hilton Treves and Mark Bloch.



Fig. 2. Still from Simba - *Roar with Flavour* Campaign
Digital Direction
Exact Date Unknown

Over the next decade the two studios became hothouses for up and coming artists in the computer graphics arena, The House Next Door expanded to include Martin Heigan, Reg Nance-kivell, Gavin Hong, Leigh Rens, and Ancilla Berry, while Digital Direction took on Dave Prescott, Jason Iverson, and Darren Hendler. Most of whom went on to work for major international studios such as Digital Domain, MPC, Rhythm and Hues and Weta Workshop.

Treves explains that the South African CG animation industry during the 1990s became a very fractured and unsteady terrain, as studios aimed to model themselves after large scale American and European VFX houses focusing on high-end quality without the market or budgets to sustain them. Ultimately, this led to many studios closing down or being forced to amalgamate. In 1998 Digital Direction merged with Sixth Street Studios, becoming Refinery and, at around about the same time, The House Next Door fractured with Reg Nance-kivell, Gavin Hong and a financier by the name of Johan Kruger forming The Works.

While a number of other studios have made significant contributions to the development of CG animation in South Africa such as Luma Creative Studios, which was established in 2001 (and who are responsible for *Bun & Bunnee*[44] a fifty-two episode 3D animated series which follows the antics of two quirky and alternative bunny brothers), Bug Box, established in 2003 (who are responsible for a series of 3D animated Christian movies titled *The Adventures of Toby)* and BlackGinger, established in 2008 (who have contributed CG visual effects and compositing to a number of feature films such as *Mad Max: Fury*

[44] *Bun & Bunnee,* a series comprised of fifty-two, one minute episodes, was entirely self funded and was initially launched on mobile and online platforms before being optioned by the SABC, BBC My Toons and Disney XD Latin America.

Road (2015) and *the Avengers: Age of Ultron (2015))* only two studios have, to date, released entirely locally produced full length CG animated feature films: Triggerfish Animation and Sunrise Productions.

1.7.3 Triggerfish (2003 - Present)

By 2003 Trowell and her team found that stop-motion work had begun to dry up and commissions were hard to come by, a fact which both Cunningham and Forrest attribute to the South African advertising sector's burgeoning awareness of CG animation as a viable medium, and the manner in which its comparative speed and the ease with which clients could request alterations or iterations, soon made it advertising agencies' medium of choice. "...both XYZoo and Triggerfish found that we just couldn't do any more stop-frame work. CG had come of age round about that time and the ad agencies, which were really our bread and butter started to look at CG, because they could have more control, and when a client didn't like something they could ask for a change, whereas in stop-frame if a client doesn't like something you have to start again and you double the budget every time, because you can't fix it" (Forrest). With the local animation industry dependent on advertising commissions as a result of the SABC's pension for broadcasting cheaply acquired internationally syndicated animation, rather than funding the production of locally produced animated content, a lack of support by advertising clients meant the demise of the livelihood of many stop-motion studios including Triggerfish.

In 2003 Kaye and Trowell sold a portion of the company to Stuart Forrest, who had previously been employed as a stop-motion animator at Triggerfish. Forrest brought with him a business partner named James Middleton, who had prior involvement in the British broadcast industry. Their plan was to digitise the company, which until then had been operating on 35mm film. The aim was to switch the production pipeline over to Digital SLRs and to introduce a digital pipeline to accompany them, so bringing in two new partners with computer backgrounds made sound financial sense, however, the studio continued to struggle and by 2005 Trowell and Kaye sold the company in its entirety to Forrest and Middleton. After Trowell and Kaye's departure, Forrest and Middleton reduced the studio to a hibernation state, selling most of the equipment and letting go of the staff. During this time Forrest began working on an idea for a feature film project titled *Adventures in Zambezia (2012)* alongside Character Matters, another studio whom Triggerfish had collaborated with on the *Sesame Street* commission. The project would fall through, however, not one to be deterred Forrest decided to resurrect Triggerfish and to bid for the rights to take over the suspended IP. Triggerfish secured the rights and Mike Buckland[45], who had been working on the project as an animator with Forrest at Character Matters, joined Triggerfish as head of production in 2007. At the same time, Anthony Silverston[46] joined as creative Head and, now with four

[45] Buckland started his career in Zimbabwe as a graphic designer in 1996, but soon made the switch to character design and animation accepting a position at Character Matters, while it was still situated in Zimbabwe in 1997. In 2003 he produced a computer-generated animated short film, which won second place at the African Eye Animation festival, and assisted Phil Cunningham in the production of his first CG animated test *Always Take the Weather with You.* After a decade employed at Character Matters Buckland joined the Triggerfish team in 2007.

[46] Silverston first worked as a geneticist, before commiting to his love of animation and deciding to pursue it as a full time career, which would lead him to complete a short course in stop-motion animation before applying for an internship at Triggerfish in the early 2000s. However, Triggerfish was already experiencing a decline in commissions and as such could not offer Silverston a position. This lead Silverston to independently produce an animated short

partners, the company was rebooted in its CG incarnation. In order to fund their feature film aspirations they initially attempted to get back into the commercial market, but found acquiring work to be challenging as they weren't well versed in networking and had few remaining connections at local agencies. As a result, the studio mostly produced service work for American companies looking to outsource. The first contract acquired was a commission for Ambient Animation, entitled *Life at the pond: The rise and fall of Tony the frog* (2007), it was 24 minutes in length and was a straight to DVD feature. The following project, *The Fish Fry*, was a 15-minute episode produced for Alabama based Studio 125's series *Me and Jessie D* (2008). This was soon followed by *Sopo* (2008), an eleven minute educational animated short film and supporting television commercial produced for UNICEF and a Nigerian TVC for Tura soap, also produced in 2008 (Forrest).

After two years of service work the partners felt confident in making the jump to a full-length feature film, they found a sales agent and began raising the money and after a further two years, and with a team of eight people, they began production in 2010. Forrest states that within 6 months the team had grown to eighty people and they were forced to ramp up production incredibly quickly, a feat which was made possible by the stop-motion drought and lack of work that the new owners had weathered in their first year. During which time Forrest had set about establishing an online database for "Animation SA"[47], which provided a system for coordinating and connecting the local animation industry. In just 6 months the database grew to include over 2000 people. "It was the good old days when everybody just was so hungry for it, … and that became core I think when we came to *Zambezia*, … because once we had the money I sent out an email and said who wants to work on our feature and I had 600 applications within a week..... Yeah those were the really heady days in terms of we were building something really exciting" (Forrest).

film, *George's Date,* in 2005. The short was accepted by several festivals which fueled Silverston's desire to animate for a living, and he began working on the script for *Khumba* while writing and editing science textbooks to support himself. During this period Silverston entered a competition run in collaboration between the NFVF and the UK Film Council and won the "25 words or less" best synopsis category. This provided him with some funding to write the full-length feature script, and the opportunity to become a partner in Triggerfish (Silverston).

[47] Animation SA is the official South African animation body.



Fig. 3. Still from *Life at the pond: The rise and fall of Tony the frog,*

Triggerfish, 2007



Fig. 4. Still from Me and Jessie D: *Fish Fry,*

Triggerfish, 2008

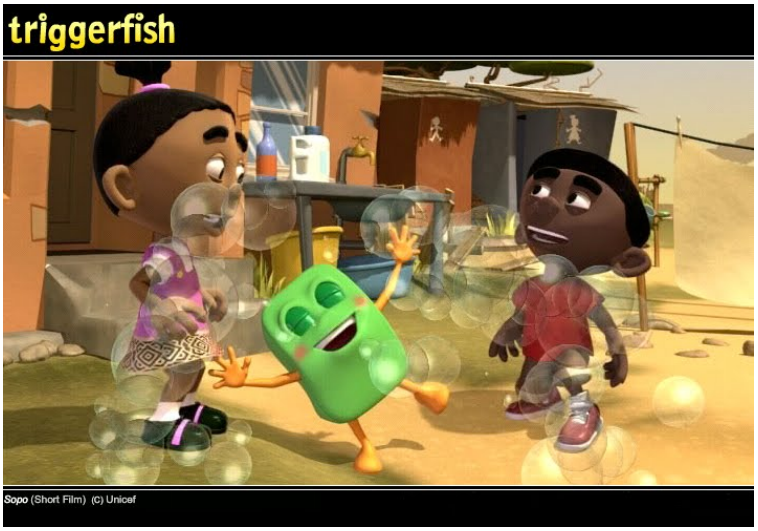


Fig. 5. Still from *Sopo,*

Triggerfish, 2008

As the team expanded rapidly and Triggerfish prepared to tackle a different type of project, the need arose to begin shaping a pipeline that could support it. Buckland, Triggerfish's head of production, says that when he started at Triggerfish he implemented Lightwave, the software package that he was familiar with, as well as Messiah, a character animation system that could be closely integrated into Lightwave, as the studio's primary software packages. These software systems were used for the production of the pilot for *Adventures in Zambezia (2012)*, as well as all of the projects leading up to the film, however, it soon became clear that Lightwave wasn't geared for a big studio pipeline and was far better suited to use by individual artists managing singular shots. They also had no software systems in place to enable different teams to work together so Sandy Sutherland, a contact of Middleton's who had been working at BlackGinger and Refinery and who brought with him a wealth of experience, was welcomed on board in 2009 as a technical and software specialist. Sutherland assisted in establishing a pipeline built around having different teams specialising in specific areas. At the same time, these teams needed to be able to integrate and it quickly became apparent that a primary focus needed to become facilitating the flow of data from one team to another. This task was allocated to both Buckland and Vanessa Sinden, who joined the team as a production manager and later became a producer. Between Sinden and Buckland they set about piecing together various studio infrastructures and hierarchies, while Middleton handled the hardware side of things and Forrest busied himself writing a proprietary task management system named Nigel. Buckland considers the team very lucky as they were in the fortunate position of being able to move straight from production on *Adventures in Zambezia (2012)*, to production on *Khumba* (2013), which provided them with the opportunity to switch renderers from Mental Ray to Arnold, and to implement new and improved workflows derived from the lessons learnt on *Adventures in Zambezia (2012)*.

However, after *Khumba (2013)* Triggerfish's fortune turned again, the studio faced a grim period in which no further work was lined up and the majority of the staff had to be retrenched. As a result, Triggerfish began to develop its Story Lab, an incubator project to which African writers submit stories for potential development into animated feature films or series. "We realised we couldn't just ... develop one script, put it into production, develop another script, put it into production. We had to be developing twenty scripts, because you never really know what the market is going to respond to, … and that has been fundamentally the best thing we could have ever done, because it opened up the whole continent of, you know, hungry creatives" (Buckland).

While Triggerfish was planning its creative incubator program in 2014, Disney Africa[48] approached them with some minor work for their games division and Forrest pitched the idea of the story lab seeking Disney's involvement, however, Disney initially was not interested. Forrest, once again persistent, managed to convince both the DTI[49] and DSTV[50] to come on board and, with his new partners lending some more weight to his proposal, he took it to Nickelodeon Johannesburg instead. Nickelodeon prove

[48] Disney Africa is a division of the Walt Disney Company dedicated to fostering collaboration with content creators in Sub-Saharan Africa and to the promotion of Disney owned IP on the African continent.
[49] The DTI is the South African Department of Trade and Industry which seeks to promote international trade and investment in the development of various industries including the animation industry.
[50] DSTV is owned by Multichoice and is Africa's largest satellite broadcaster

to be more fruitful and Forrest contacted Disney Africa, whom he was still unsuccessfully courting, informing them that Triggerfish would be partnering with Nickelodeon instead. Upon hearing the news, Disney's interest was aroused, and Triggerfish, deciding that Disney Africa would be a more compatible brand, forged a partnership.

Triggerfish now had a plan for the future, but it was in need of a source of income for the present. Forrest contacted Michael Rose of Magic Light Pictures who had produced *Chicken Run (2000)* and whom Triggerfish had approached as a potential executive producer for *Adventures in Zambezia (2012)* in 2008. In 2008 Rose had been unavailable, however, upon seeing *Khumba (2013)* he requested that Triggerfish quote on a section of his latest project *Stick Man (2015)* (Forrest), which was based on a series of books by the renowned children's writer Julia Donaldson. By this stage, Triggerfish had begun honing their pipeline, but Buckland states that they still had a long way to go in terms of understanding the quality required for European broadcast. "We were really proud of *Zambezia* and *Khumba*, and I think they're good, but the benefit of the Magic Light projects was they exposed us to directors who had been working internationally … so those four projects really levelled up the crew skills massively" (Buckland).

Initially Rose only offered Triggerfish the opportunity to work on a section of *Stickman (2015)*, however, the partners submitted a quote for the entire production. They secured the contract which prove to be a runaway success earning the coveted Christmas Day lunchtime broadcast slot on the BBC and winning the Cristal for best TV Production at the Annecy International Animation Festival. *Stickman* also served to forge a relationship between Magic Light Pictures and Triggerfish which would lead to further productions: Roahl Dahl's *Revolting Rhymes (2016), The Highway Rat (2017)*, *Zog* (2018) and a final production which is, at the time of writing, yet to be announced (Forrest).

1.7.4 Sunrise (2005 - present)

In 2003, after the critical success of his previous project *The Legend of the Sky Kingdom (2003),* Cunningham decided to begin experimenting with CGI tests. Sunrise's first CG animated short *Always take the weather with you* was produced that year. The aim of the test was to ascertain whether or not CG animation was a viable medium for the studio to pursue and it centred around a monkey character battling the elements. After the test prove successful Cunningham made the move to Cape Town in 2005 and the Sunrise CG character rota was expanded to include a full animal cast. The structure was reformatted into a thirteen episode series, with each episode spanning five minutes in duration. The series was named *Jungle Beat (2005-present),* and would later become the brand central to the development of Sunrise as a studio. *Jungle Beat* wasn't only an experiment in the feasibility of CG, it was also an investigation into ancillary marketing[51] and what problems encountered within a stop-motion pipeline (such as budgetary restrictions on visual effects) could be solved within a computer-generated environment. Cunningham notes that animation is primarily concerned with exceeding reality and

[51] Jungle Beat has given rise to a sizable line of children's merchandising, including clothes, beach towels, water bottles and lunch boxes.

breaking the laws of physics, which provides CG animation with an advantage as you are able to define the environment in which your story takes place from the gravity to the weather (Cunningham). This meant that special effects such as fluids were simpler to achieve in CG, however, it also resulted in the loss of the culturally specific, Zimbabwean street art inspired junkmation aesthetic that Sunrise had pioneered in *The Legend of the Sky Kingdom (2003)*. However, Cunningham saw CG as the perfect vehicle via which his studio could once again push boundaries and hone its scriptwriting abilities, just this time within channels that were more commercially viable.

Cunningham began travelling to various markets around the world and started to build relationships with companies like Monsters Distribute, an Irish enterprise, who agreed to distribute season one of *Jungle Beat*. While the studio proceeded in developing the *Jungle Beat* series Cunningham and his wife had continued, whenever the opportunity arose, to write scripts for their primary interest, feature film animation. They began developing two separate projects, the first a biblical narrative recounting the nativity from the perspective of the stable animals, and the second an Afrocentric story whose plot details may not be disclosed as it was recently re-optioned and is undergoing pre-production at the time of writing. Monsters Distribute indicated interest in the biblical narrative, it was developed into a twenty-two minute Christmas special called *Once Upon a Stable* which was distributed internationally in 2004. Sometime after its release it drew the attention of local media investor and producer Johan Sturm, who approached Sunrise wanting to enter into negotiations regarding the production of a feature film based on the characters and plot developed within *Once Upon a Stable (2004)*. In 2006 Sunrise completed the script for, and began producing pre-production for, *The Lion of Judah (2011).* It was intended to be the first full-length CG feature film produced in Africa, just as *The Legend of the Sky Kingdom (2003)* had been the first stop-motion feature film to originate from the continent, however, due to contractual complications Sunrise eventually limited its involvement in the project to narrative and pre-production design, with Character Matters (the studio which had written the original treatment for *Zambezia (2012)*), taking over the CG production (Cunningham), and American distributor Rocky Mountain Pictures taking over the proprietary rights and later distributing the film in Europe and America. *The Lion of Judah* was produced on a budget of less than two million U.S dollars and was released in 2011, with Warner Home Video handling DVD and Blu-ray sales and distribution in America and Europe as of 2012 (IMDB)[52].

Despite the complexities of its involvement in *The Lion of Judah,* there was good news for Sunrise as Monsters Distribute requested a further two seasons of *Jungle Beat*, so work began on seasons two and three. The first two seasons were produced in Maya, utilising Photoshop for texturing and Renderman and Mental Ray for rendering, however, by season three further finance had been raised, the studio grew from eleven people to forty and Matthew Brown, who had previously worked for two other local studios: Clockwork Zoo and Sea Monster, joined the studio as a producer. David Hecker, also previously from Clockwork Zoo, joined as production manager. A new pipeline and infrastructure were initiated, centred

[52]Cunningham states that *The Lion of Judah* did eventually find some success within the Christian home entertainment industry in North America, but that he is unsure of the final profit margins due to the multifarious nature of its production and Sunrise's restricted involvement in the project.

around Maya for production and Houdini and Nuke for post-production, with Shotgun handling shot allocations and production tracking. This Maya/Houdini pipeline proceeded into two spin-off shows *The Explorers* (2015) and *Munki & Trunk* (2016) (Brown).

Munki and Trunk (2016), consists of fifty-two, seven minute episodes, and takes place in the *Jungle Beat* universe, but this time centres around characters interacting with one another (unlike *Jungle Beat* in which each episode followed an individual character). Aardman came on board at this point as the new sales agent for the series after contact was made through Nicola Rowe, a South African who had been working abroad for Aardman, but had returned home and joined Sunrise. Rowe introduced Cunningham to Hayley Porter, who was still working for Aardman at the time, and a relationship was established. To date, *Jungle Beat* has been broadcast in over 180 countries on channels including Cartoon Network, Boomerang and Nickelodeon. It screens on over 40 airlines around the world and has established a viable production model for Sunrise in which below the line series work aimed at online distribution platforms is produced in order to generate the capital needed to fund the development of feature film IP (Cunningham).



Fig. 6. Still from *Always Take the weather with you,*

Jungle Beat Pilot, 2003,

Sunrise Productions



Fig. 7. Still from *Lifted,*

Jungle Beat Season 3, 2015,

Sunrise Productions



Fig. 8. Still from *Once Upon a Stable,* 2004, Sunrise Productions



Fig. 9. Still from *The Lion of Judah,* 2011, Sunrise Productions, Character Matters, Rocky Mountain Pictures

1.8 Thoughts on the historical Context of South African CG Animation

The earliest instances of CGI in South Africa were largely logo reveals and lower thirds for local broadcast channels, which provided a period of experimentation and development for local studios such as DreamWave and the House Next Door. However, once the advertising sector saw these advancements in CGI, digitally animated commercials began to appear. These commercials often featured the amalgamation of traditionally animated characters, or live-action footage, for which studios enlisted the help of traditional cel animators or live-action directors. As a result of this multi-media approach, the Disney trained animators such as Gerhard Smith, Glenn Coppens and Riccardo Capecchi who had established the local cel animation industry all became involved in the local CG Animation industry (Treves). As such, the Disney derived training which the three had received in Europe began to influence local CG animation production too, which can clearly be seen in the character-driven work produced in service of the advertising sector by studios such as Luma[53], BugBox[54] and BlackGinger[55].

[53] Luma is a Johannesburg based production studio which specialises in CG character animation and which was started in 2001 by Paul Meyer.
[54] Bugbox, also a Johannesburg based studio specialising in character animation was established in 2003 by Tim Argall.
[55] BlackGinger, a Cape Town based CG and VFX Studio was founded in 2005 by Hilton Treves and Mark Bloch.

There was one outlier from this industry wide adoption of the Disney principles though. In 1996 the SABC commissioned Delapse, a local design and interactive media house to concept digital presenters for *Tube* a children's show, which was to be broadcast daily. Gustav Praekelt, one of the studio's founders and its technical director, advised the SABC that animating and rendering performances totalling over sixty minutes a week would not be feasible, but that there was another option: realtime rendering and motion capture. In an interview with Intouch[56]Llewelyn Roderick, the studio's director states that he sought out actors with dance or mime backgrounds so that they would be conscious of their movements and would be able to construct clear and appealing gesture. Brian Webber was cast as the series' male protagonist Dub, and Tshepang Motsekuoa was cast as the female lead Codi. The performers wore motion capture suits which were part of a Polhemus animation system that ran on a Silicon Graphics Octane computer, and secondary software was used to switch between pre-rendered facial expressions and visemes[57]. This creative process facilitated the production of the amount of animation that was required, whilst at the same time necessitating a move away from the Disney principles of animation which were being adopted by other local CG studios. *Tube* prove to be extraordinarily successful and the series was broadcast for over ten years (DeBarros). However, despite this success, studios which followed Delapse in producing computer-generated animation content for the SABC would once again opt to return to the Disney conventions of performance which had been taught to their animators. Two such productions were *URBO: The Adventures of Pax Afrika (2006-2009)*, produced by Clockwork Zoo, and *Magic Cellar (2006-2007)*, produced by Morula Pictures. Wells suggests three primary factors as influencers over animated productions: the background of the studio which produces the animation, the budget and the broadcast context (15). This assertion can certainly be applied to these two productions. According to Matthew Brown, who at that time worked as a producer for Clockwork Zoo, *URBO: The Adventures of Pax Afrika (2006-2009)* was the first South African produced, digitally animated long-form series. It tells the post-apocalyptic story of Pax Afrika, a teenager living in a parallel universe in which Cape Town is known as i-Kapa. Pax discovers that he has supernatural powers that have been granted to him by his ancestors and together with his friends he seeks to overthrow the evil overlord Maximilian Malice, rescue his missing father and find the lost city of URBO, hidden somewhere in the ruins of Africa. *URBO (2006-2009)* was broadcast for four seasons, totalling one hundred and four, twenty-four minute episodes, on a budget of only eight million rand[58] (IMDB). This exceptionally limited budget resulted in very little time for pre-production and experimentation with stylisation and abstraction, and also resulted in the need to keep characters as simplistic as possible in order to speed up production. Consequently, despite a script that develops sequentially tackling local issues such as tik addiction[59], HIV and democracy, and an environment design that is distinctly South African including Table Mountain and locally inspired architecture, the characters within *URBO (2006-2009)*are uniform in appearance save for costume, hair and eye colour and the

[56]Intouch was an online telecommunications and technology forum which was active during the 1990s.
[57] Mouth shapes for speech cycles in animation.
[58]At the time of production eight million rand was the equivalent of one million dollars.
[59] "Tik" is South African street slang for Methamphetamine.

animation adopts a style of movement which is comparable to Japanese anime's limited style, characterised by a number of time saving techniques resulting in a lack of fluidity.



Fig. 10 Environment Design in *URBO: The Adventures of Pax Afrika*
2006
Clockwork Zoo



Fig. 11 Character Design in *URBO: The Adventures of Pax Afrika*
2006
Clockwork Zoo

Magic Cellar (2006-2007), in turn, became the first South African conceived[60] long format 3D animated series. The series centres around six children, who in every episode become involved in a situation that instigates Mr Zee, a wise old cockroach, narrating a story based on African folklore designed to teach the children a life lesson. Despite a narrative that is also representative of South African themes, and which featured four of the country's official languages (isiZulu, Sesotho, Afrikaans and English) the need to reduce production costs resulted in the outsourcing of production to India. Firdaus Kharas, the director and producer or *Magic Cellar (2006-2007)* when interviewed by Roland Kangong for his Master's dissertation, stated that the original concept art for the series' central characters was produced in South Africa, but that the proportions were later found to be too challenging for production in 3D, so the characters were redesigned. This coupled with the problematic outsourcing of the animation results in characters which despite different cultural and ethnic backgrounds again look interchangeable with the exclusion of skin colour and costume, highlighting the problem that the development of CGI animation in South Africa has been greatly hindered by its reliance on the limited budgets of the public broadcaster, international funding and distribution channels, co-production treaties and software-centric production models.

[60] The series was written, funded and concepted locally, but was outsourced to and produced by UTV Logo in India (Kangong 28).



Fig. 12 Character Design in *Magic Cellar*
2006
Morula Pictures

One of the most defining factors regarding animation in a South African context has been the distinct absence of a designated space for the development of independent animation. In the United States CG animation advanced due to military funding, university programs dedicated to computer graphics and the investment of financiers such as George Lucas and Steve Jobs, allowing pioneers like Catmull and Lasseter the space for experimentation and exploration. South African animation, on the other hand, has followed a different path in terms of its progression, with an almost entirely commercial approach to local animation production which in many ways is a direct result of the lack of funding facing South African animation studios. A lack of government investment due to the economic difficulty results in a scenario where despite many small studios exhibiting traits characteristic of the independent, artist-driven animation which defined Eastern European animation in its golden age (such as bold and often allegorical themes and the incorporation of locally inspired aesthetic elements)[61], non-commercial animation in South Africa is effectively only possible on two levels: education and passion projects. Experimental animation is not very likely to be pursued at local studios due to its tendency to disaffect an audience, and as such, not to be commercially viable. On an educational level, innovative or explorative animation becomes challenging too as a result of the reduction of the curriculum at many animation schools to a quasi-corporate model attempting to imitate production in industry, implementing similar commercial constraints and effectively eradicating any potential culture of experimentation and investigation due to the expectation to equip students for a local industry that offers little space for ideation and conceptualisation, is entirely production-centric and as such, wholly focused on commercial viability. Explorative animation of the kind needed to develop new languages of expression is largely falling by the wayside at the expense of conformity in observing the established Disney conventions of aesthetics which South African animation producers and investors often view as the be all and end all of animation production.

---

[61] Tulips and Chimneys, a South African production company whose distinctive style has earned them repeated international contracts irrespective of their small team of five principle artists, is an apt example of this. Their animation *The Tale of How (2006)* was produced entirely as an after hours passion project by art director Ree Treweek, alongside Jannes Hendrikz and Markus Wormstorm, and went on to be featured within multiple film festivals as well as winning best animation at the Byron Bay International Film Festival in 2008.

Chapter 2:
The Aesthetics of Animation

Within South Africa, computer-generated animation followed a path of development which was, in some ways, quite divergent from the progression that occurred in the United States yet closely mirrors it in others. The first part of this chapter will provide a contextual and aesthetic analysis of the development of style at The Walt Disney Studio, while the second half will evaluate the evolution of computer-generated animation aesthetics and the circumstances from which they emerged at Pixar. The overall aim of this chapter is to evaluate the aesthetic conventions that characterise mainstream American feature film animation to provide a basis for comparison in the analysis of the stop-motion and computer-generated work produced by Triggerfish Animation Studio and Sunrise Productions in the following chapters.

This chapter focuses on what is perhaps the core difference between CG animation development in South Africa and in America. In the United States the evolution of computer-generated animation was preceded by a well-established two-dimensional industry, whose techniques, studio practices and stylistic conventions were adapted and adopted in the maturation of its CG successor. In South Africa on the other hand, the apartheid regime directly resulted in several social and political factors which effectively throttled the development of an animated feature film industry for many decades. These included trade boycotts which prohibited international production companies or sales agents from collaborating with South African studios in the production or distribution of South African produced film or animation overseas, a two-decade delay in establishing local television broadcasters due to then then ruling National Party's distrust of the medium as a potential tool for the propagation of anti-apartheid sentiments and the SABC's resultant reliance on the replication of the British Broadcast Channel's already established infrastructures, business models and ideologies, including the BBC's then dismissive view of animation as a children's medium which resulted in a focus on puppetry rather than animation as the primary medium for children's television entertainment locally (Shapurjee 9).

In 2001 Theresa Collins carried out a survey of the South African animation industry. Collins identified four obstacles that have restricted the development of animation in South Africa: a lack of funding, a lack of animation training courses and institutions, and the influence of American animation and local politics on South African animation studios (Collins 30-34). The lack of commissions from South African broadcasters resulted in the development of a small industry which relied on local advertising agencies, who generally dictated content and style resulting in studios having to produce generic, unimaginative work in order to survive. This limited market was characterised by a lack of cooperation between studios which were fighting for survival (Collins 33-34). The challenges of operating within such a restrictive environment meant that many emergent studios relied strongly on American animation techniques and stylistic conventions as they lacked the budgets required for testing alternative methods (31-32). The

time which Jobs had allocated Pixar in the production of short films for the purpose of developing software and promoting the studio to potential clients, but which also served to foster experimentation and development, was a luxury that most South African studios simply couldn't afford.

These unique socio-political factors meant that films produced in South Africa from the 1970s onwards, when international boycotts began to take effect[62], had to rely solely on local audiences for income as the films could not be marketed to an international viewership. As a result, animated feature films were not considered viable as the large production budgets required could not be recouped within an exclusively South African market. This meant that the development of the local animation industry, rather than being aimed at television broadcast as it commonly was in Europe and America, operated in service of the advertising sector with commercials being produced for cinematic exhibition at local theatres. This focus on advertising as a primary market resulted in further hybridisation of animation studios within South Africa. Local animation production was channelled into an almost entirely commercially motivated avenue of development, but one that through a drive towards diversifying product identities was more open to stylistic variety than animated feature film, which tended towards set aesthetic conventions and common themes, often was.

This delay in the development of a local animated feature film industry shaped a very particular landscape from which South African CG animation would arise. In the United States the genealogy of animation began with traditional cel animation which gave rise to CG animation whereas, in South Africa, it was stop-motion that would give rise to computer-generated forms. It would appear that in several instances this unique lineage occasioned scenarios where the materiality and constructedness of the stop-motion puppets and sets, which South African animators were used to working with, resulted in artists who transitioned to the new medium of computer-generated animation and developed authentic and culturally specific environments, but either struggled with the technical aspects of rigging characters with unwieldy proportions, or could not shake off their traditional Disney training, resulting in the simplification of character design.

In the United States the history of animation can be characterised through its development from experimentation with film and cinematic effects, to early hand-drawn animation and the introduction of the studio system, the industrialisation of animation into a pipeline, the subsequent split of traditional two-dimensional animation into various streams servicing television, advertising, gaming and feature films, and finally, three-dimensional CG feature film animation and game development. Each of these stages of the development of animation within America can be characterised by the advent of an associated style of animation. The early cartoon strip animations were associated with rubber hose techniques and the introduction of the studio system resulted in the development of both the limited and full styles of

---

[62] In 1958 the African National Congress Party, which was in exile, held a meeting in Ghana which staged a call to action for the Academic and Cultural Boycott of South Africa. In **1963** a collective of forty-five British writers signed a literary boycott, in 1964 Marlon Brando incited an American boycott of films being sent to, or produced in, South Africa and in 1965 The Writers' Guild of the United Kingdom called for a British embargo on the exportation of films to South Africa too.

animation. Thus, by the time the age of 3-dimensional CG animation dawned it was able to draw from an already well established and richly populated catalogue of 2-dimensional feature film animation which widely adopted the Disney inspired full style of animation. Pixar, in turn, would draw from John Lasseter's experience at The Walt Disney Studio resulting in a massive impact on the studio's style, and consequently on the emergent forms and practices of CG animation worldwide.

Today the dominant form of feature film animation internationally is the three-dimensional, computer-generated animation that is commonly associated with American studios such as Pixar, Dreamworks, Blue Sky and others, however, It is important to tackle any discussion surrounding the aesthetics of animation in terms of Furniss' contextual approach. Furniss dictates the necessity of understanding the context in which a work was produced and the "historical, economic, social, technological, political and industrial factors that may have influenced its production" (7), as this allows for the study of animated features as products of specific time periods and places. Consequently, any consideration of the aesthetics of computer-generated animation has to consider the evolution of style at the Walt Disney Studio, which would greatly influence the medium of CG animation.

2.1 The Birth of the Disney Style of Animation

This subsection focuses on the development of the Disney animation aesthetic and will consider five core elements within Disney's traditionally animated feature films: narrative design, the treatment of three-dimensional spaces and forms and the treatment of movement and sound.

2.1.1 Narrative

Disney had grown up watching vaudeville and was an admirer of the great comedy acts of early cinema such as Charlie Chaplin and Buster Keaton. By the late 1920s he had begun analysing what made the work of those early comics so engaging, and he found that how likely a gag was to succeed was largely dependent on whom the gag was played. A gag aimed at a likeable or downtrodden character was less likely to elicit laughter, whereas one which targeted an arrogant or cruel character was. Disney also realised that it was best to build on gags and allow them to develop rather than jumping from gag to gag. The gags that the Walt Disney Studio was producing were not situations that were inherently funnier than those being produced by other studios, but they were better staged and they better communicated personality. The audience understood how the characters felt and what they were thinking, there was attention to detail and the establishment of characters and a world that felt relatable. Slowly, but surely Disney began to create animated actors who caricatured reality, rather than flat personas serving as props for gags (Thomas and Johnston 32).

By the 1930s the drive towards visual narrative accelerated and the Walt Disney Studio began establishing narrative structures to support their iconography. Despite the incorporation of symbolism in

films like *Snow White and the Seven Dwarfs (1937),* where the poison dripping from the witch's apple signifies its murderous intent by forming a skull in order to enforce narrative, Disney avoided purely metaphorical approaches to storytelling. Instead, favouring linear narrative in which events follow a logical progression over a fixed period of time and are subject to cause and effect. However, within this fixed structure Disney, and his studio, adopted a number of different narrative devices. In *Understanding Animation* Paul Wells identifies narrative structures specific to the medium of animation, several of which are frequently used within Disney's traditional feature films. The first is synecdoche in which a part of an object becomes representative of the whole, as in the ticking of the ingested clock heralding the crocodile in *Peter Pan (1953).* The second widely executed narrative device is condensation or elliptical storytelling. This narrative structure refers to cuts in the editing of a film or other methods implemented in order to streamline a story. One frequently used example is the Disney prologue, in which a visual device is adopted to convey context before the story begins. Traditionally, as in *Snow White and the Seven Dwarfs(1937)* and *Cinderella (1950)*, this prologue takes the form of a storybook which narrates both audibly and visually the preceding actions providing exposition. However, over the years this has evolved - becoming a stained glass window in *Beauty and the Beast (1991)* and an opening musical number in *Hercules* (1997). The third and final technique is choreography, which since *The Little Mermaid (1989)* and its introduction of aspects of the modern stage show musical within animation, has been a repetitive Disney technique through which dance and movement become story elements (Wells 111). This linear structure, which includes symbolism as a device for narrative clarity, synecdoche, condensation and choreography would become characteristic of the animated feature films produced by the Walt Disney Studio.

2.1.2 Forms and Spaces

From the first special effects seen in vaudeville animations, used to make actors vanish or appear, to the gentleman character in Emile Cohl's *Fantasmagorie* who rips a hole in space and time, to early animations like Otto Messmer's *Felix the Cat* with its surrealist undertones, early Euro-American practitioners of cinema displayed a shared disposition towards the depiction of a modernist outlook. Felix consistently walks the line between assimilating enough realistic indicators to establish limits and legitimise the narrative, while at the same time, repeatedly accepting the surreal and irrational as ordinary (Wells 21).

However, those heady days of experimentation would soon be eclipsed through the industrialisation of animation and the standardisation of commercial production practices. Shortly after its founding in 1923, The Walt Disney Studio began focusing on the development of animated aesthetics and experimentation with form and content. This can clearly be seen in the *Alice comedies (1923),* with their surreal conjugation of live action and animated forms, and the striking plasticity of the characters. Experimentation with aesthetic stylisation and modes of mobility, would though, soon give way to a fervorous fascination with mechanisation and art. Wells proposes that the "Oswald" Series of animations

heralded the beginning of Disney's move away from the fantastical towards technological advancement and, with each technical development the plasticity of those early animations became more muted (25).

By the late 1920s, Disney animators had begun studying animal behaviour and systems of communication within communal animals like chimps and dogs, trying to understand the symbols of communication in order to develop the visual language necessary to imbue character and personality. The animators were encouraged to experiment with different styles and techniques including cut-out, stop-motion, limited styles of movement and full cel-based animation. They found consistently that, irrespective of working method, the animations that got the best response from audiences were those that portrayed clear story and built distinctive personalities to, or from which, the viewer could either relate or recoil. This set the stage for what would differentiate the Walt Disney Studio from its competitors, who were focusing on the development of gags and sight based humour which left little room for analysis of movement, narrative or character development (Thomas and Johnston 26-31).

Animation in the 1920s can be characterised by the utilisation of various time-saving techniques, such as animating backgrounds rather than characters to imply translation of a character through an environment, many of these would be neglected by Disney in his drive towards believable performances. However, arguably the single most significant contributing factor to the development of Disney's trademark style was the abandonment of the rubber hose aesthetic in favour of articulated limbs. Once the studio began developing conventions of design centred on articulation, a new style of animation and character design was born. One which favoured a more realistic approach to performance. This mode of production would evolve over time and become forever synonymous with Disney through a very simple sequence of events, which would have an irrevocable impact on the studio. *Snow White and the Seven Dwarfs* (1937) was the studio's first feature film and although its budget was unprecedented for animation production at the time (1.5 million dollars), it would go on to reap much greater profits. *Snow White and the Seven Dwarfs (1937)* and its monumental financial success would, however, be succeeded by *Fantasia (1940)* which woefully underperformed at the box office (Pallant 11). After the failure of their expressionistic experiment, The Walt Disney Studio elected to permanently adopt the comparative realism represented in *Snow White and the Seven Dwarfs (1937)* as the studio's core aesthetic, resulting in what Wells terms a "hyper-realist" convention (25).

By Wells' definition "hyper-realism" can be characterised as follows:

1. The design, context and action within the animation resembles a live-action representation of reality.
2. The characters, props and environment within the animation are subject to the conventional physical laws of reality.
3. The sound deployed in the animation is diegetic and corresponds directly to the context from which it originates.
4. The construction and movement of any bodies in the hyper-realist animated film will correspond to the orthodox physical aspects of human beings and creatures in the 'real' world (25-6).

However, it is important to note that while the Disney aesthetic is undoubtedly characterised by its artistic sophistication, the realism which it achieves is a very constructed re-interpretation of reality, which could better be described as believability. However, the studio's treatment of worlds would also become a stylistic convention in its own right. If *Snow White and the Seven Dwarfs (1937)* can be considered responsible for cementing Disney's characteristically believable approach to character performance, then *Bambi (1942)* can be deemed the cause of a shift towards naturalistic environments. The advancement of the treatment of environment in *Bambi (1942)* is obvious from the very first frame of the film, which utilises even more evolved multiplane camera techniques than those seen in Snow White (1937) or *Pinocchio* (1940). The opening multi-plane shot is impressive as it utilizes a dynamic shift in tracking speed, but just as remarkable are the sophisticated special effects showcased in the "Little April Showers" sequence (Pallant 16). Through *Bambi (1942),* The Walt Disney Studio would come to be defined by naturalistic environments inhabited by exaggerated, yet instantly relatable, characters.

2.1.3 Movement

As the Disney approach of analysing real life reference and exaggerating it developed throughout the 1930s, an entirely new language was needed to describe it, and as the techniques of animation developed so did this language. Eventually resulting in the development of the twelve principles of animation[63]. These twelve principles, and a focus on specifically narrative-driven feature film production, resulted in a style of animation that was very different from its plasmatic origins and soon became the studio's signature. The newly established Disney aesthetic favoured more realistic representation, but still valued enhancement and exaggeration. Performances were centred around the lifelike movements of characters, which were representative of real life actions, but employed caricatured gesture rather than simply mimicking reality. It was important to the studio that the complexity of the movement being animated was not something that the audience was consciously aware of thus, from its early days, The Walt Disney studio avoided the practice of rotoscoping[64]. Live-action was used solely as a guide from which to ensure that movements were convincing (Thomas and Johnston 319). If it was pivotal that the body needed to conform to the physical laws of the real world, then it was just as pressing that it also had the capacity to resist these laws and return to its plasmatic past, squashing, stretching and contorting when needed. What was absent within Disney's aesthetic post *Snow White and the Seven Dwarfs (1937)*, was not extravagant action and reaction as Wells' definition of hyper-realism may suggest, but rather "metamorphosis" which Wells defines as "the ability for an image to literally change into another completely different image ... through the evolution of the line" (69). While this sort of transmutation is seen from time to time in Disney feature film animation, as in *Snow White and the Seven Dwarfs (1937)* when the Queen transforms into the Witch or in *Beauty and the Beast (1991)* when the beast is transfigured from animal to human, it has become the exception rather than the rule. This style of

[63] The Twelve Principles include: Squash and Stretch, Anticipation, Staging, Straight Ahead Action and Pose to Pose, Follow Through and Overlapping Action, Slow In and Slow Out, Arcs, Secondary Action, Timing, Exaggeration, Solid Drawing, Appeal.

[64] Rotoscoping was a technique commonly used by other studios as can be seen in the work produced by Fleischer Studio in this period, such as *Betty Boop* (1932-39) and *Gulliver's Travels* (1939).

movement which ranges from realistic to highly caricatured is what defines the Disney aesthetic in terms of animated performance.

2.1.4 Sound

After its relocation to California, The Walt Disney Studio had front row seats from which to witness the glory of score and narrative in Hollywood film and immediately began incorporating it into their pipeline with “Steamboat Willie” (1928) becoming their first production to include sound on film in the form of foley, character sounds and a score. Sound would impact not only the overall presentation of their films, but their nature themselves, in particular within the genre of comedy, wherein physical blunders would give way to pithy dialogue. Disney knew that relatable characters and human emotions were what drew audiences to the cinemas to watch live-action films, and he became determined to emulate the live-action feature film model, realising that sequential gags and visual puns were not enough to capture an audience’s attention for the duration of a feature film. The studio adopted a narrative approach to sound design and began utilising choreography with elements of the plot being revealed through song. Musicality no longer merely supported story, but acted as a major contributor to the narrative.

By 1942 Disney's dominance of the animation market was unchallenged and, thus, the spontaneity and tendency towards partial abstraction that had made animation such an arresting medium in its early days was sidelined within the world of commercial animation. Disney’s dominance of feature film animation would result in western commercial animation becoming largely defined by the prevailing influence of the Disney aesthetic which I will refer to as ‘Disneyesque’ rather than using Wells’ definition of hyper-realism in order to allow for the exaggeration of the characters who inhabit Disney’s naturalistic landscapes. The following subsection aims to consider the impact of the Disneyesque style on the Pixar aesthetic and consequently, on the development of all subsequent three-dimensional computer-generated forms of animation.

2.2 Pixar and the Principles of Animation

After Lasseter made the move from the two-dimensional realm of Disney to Pixar in 1986 (eventually becoming Chief Creative Officer at both studios) he would drastically alter the landscape of computer-generated animation. Prior to Lasseter’s involvement, the 3D model had been dominated by research into CGI and what had begun as an investigation into digitising animation techniques had become an avenue of research almost solely dedicated to digital imagery and the related fields of lighting, surfacing and rendering. Lasseter however, began implementing the same focus on drawing and studying motion that had been key in the days of the traditionally cel animated Disney productions to his new digital medium and, as a direct result of Lasseter’s involvement, Pixar would very quickly develop its own distinctive aesthetic.

2.2.1 Narrative

In the same way that Disney adopts a primarily naturalistic approach and treats instances of metamorphosis as the exception rather than the rule, so does Pixar. There are deviations such as the transformation of Rapunzel's hair after being cut in *Tangled* (2010) or the plasticity of the lovable sweater monster in the short film *Lou (2017),* however, Pixar primarily adopts figurative rather than transfigurative techniques. However, the concept of synecdoche is one that Pixar explores repeatedly. Many characters and environments signify greater concepts within the worlds that Pixar creates: in *Toy Story (1995)* Andy's toys, destined to one day be outgrown, are symbolic of both childhood innocence and parental protection, while Boo in *Monsters Inc (2001),* who exists purely as a reactionary agent to the world in which she finds herself transplanted, is representative of the post-modern vision of the sublime (Herhuth 113-114). Pixar adopts and adapts the Disney tradition of condensation too, with exposition frequently communicated via prologues such as the Papel Picado paper banners at the start of *Coco (2017)*, the television documentary at the beginning of *Ratatouille (2007)* or the colonial style safari film that introduces us to Carl's aspirations of adventure in *Up (2009).* Like Disney, Pixar utilises a linear narrative structure which focuses on sequential cause and effect and clearly draws from the Disney tradition of characters who drive the plot through their own unique fears and aspirations, but there is a fundamental difference between the Pixar and Disney approaches to story. Classic Disney films were heavily inspired by traditional folklore and fairy tales (Wells 73), with a focus on moral lessons at the core of each narrative. Pixar, on the other hand, focuses on more contemporary subject matter that lacks an implicitly ethical standpoint in favour of an emotional core.

2.2.2 Forms and Spaces

The Pixar aesthetic would also be greatly influenced by Disneyesque modes of production which can be seen, for example, in the studio's treatment of eyes. Through its feature film work, The Walt Disney Studio developed its character design aesthetic, creating eyes that were no longer simple black circles nested within larger white ones as they had been in the design of Donald Duck, Pluto and other early Disney characters. Instead, a style of eye was developed that, while maintaining its enlarged size and customary increase in the amount of visible sclera, included eyelids with volume that wrapped around the eyeball, irises that gave the eye colour and served to further distinguish characters from one another, eyelashes that added to the overall appeal of the face and specular highlights on the pupil.
All of these traits would be adopted by Pixar in their own approach to character design, as would the utilisation of naturalistic body proportions (barring the head which is slightly enlarged to allow for upscaled eyes) and a primarily Caucasian character demographic (although a transition has occurred of late towards more inclusive racial and cultural representation in the work of both Disney and Pixar through films like *Moana (2016)* and *Coco* (2017).

Fig. 13 The Development of the treatment of eyes,
Early Disney
On Ice
1935
Disney



Fig. 14 The Development of the treatment of eyes,
Classic Disney
Bambi
1942
Disney

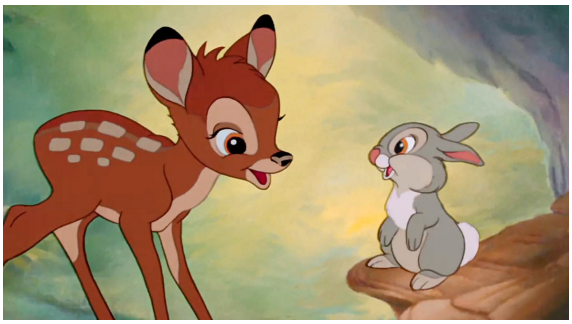


Fig. 15 The Development of the treatment of eyes,
Pixar
Inside Out
2015
Pixar



However, a primary difference can be observed between Pixar's approach to character design and that which is apparent in the traditional Disney cel animation which preceded it: Pixar implements a variety of body shapes for its human protagonists with characters such as Violet (*The Incredibles*) and Merida *(Brave)* representing very different measurements and as such contrasted ideals of feminine beauty. In the same vein, through their shape language Mr Incredible and Bill (*Inside Out*) reflect differing interpretations of masculinity. This diversity of forms is not characteristic of the traditionally animated Disney feature films. Instead, Disney opts to maintain the naturalistic proportions developed for Snow White (inspired by the dancer Marge Champion) for its princesses as is evidenced by Aurora and Cinderella's designs. In designing the prince for *Snow White and the Seven Dwarfs (1937)* the dancer Louis Hightower was used as reference and a very comparable body type was again implemented for the prince in *Cinderella (1950)*.



Fig. 16. Body Type Comparison
Cinderella (1950)
Disney



Fig. 17. Body Type Comparison
Snow White and the Seven Dwarfs (1937)
Disney



Fig. 18. Body Type Comparison
Cinderella (1950)
Disney



Fig. 19. Body Type Comparison
Snow White and the Seven Dwarfs (1937)
Disney



Fig. 20. Body Type Comparison
The Incredibles 2 (2018)
Pixar



Fig. 21. Body Type Comparison
Inside Out (2015)
Pixar

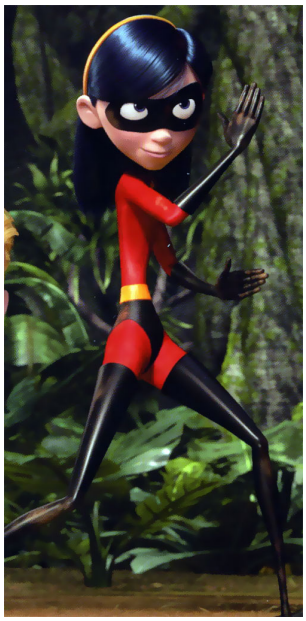


Fig. 22. Body Type Comparison
The Incredibles (2004)
Pixar



Fig. 23. Body Type Comparison
Brave (2012)
Pixar

Pixar films are defined by characters who function as caricatures of reality, adhering to real world laws of physiology and physics, yet at the same time adopting a stylised aesthetic through the amplification of the eyes, heads and hands and the simplification of line and shape. Pixar-produced animations repeatedly practice digital caricature through the accurate replication of real-world people or places subject to exaggeration of key features. It is customary for concept artists at Pixar to draw inspiration from existing people as reference for character design, Merida from *Brave (2012)* was loosely based on the model Lily Cole and Joy from *Inside Out (2015)* on Audrey Hepburn's portrayal of Holly Golightly in *Breakfast at Tiffany's (1961)*. Environments too are heavily influenced by actual locations, for example, the landscapes in *the Good Dinosaur (2015)* are a replication of the Jackson Valley terrain in Wyoming. The term 'replication' is not used lightly here, as due to time and funding restrictions it was not feasible to create and render the scope of the environments required for the narrative from scratch. As a result, over 104000 square kms of topographical data was downloaded from the U.S geological survey and used to generate a procedural basis for the environment (Anders 2015).

2.2.3 Movement

Lasseter would also have a very significant impact on the styles of movement that would evolve at Pixar, with the studio's character performance being very much aligned with the Disney principles of animation. In a paper written by Lasseter for Siggraph in 1987, just one year after his uniting with Pixar, he outlines the principles of traditional cel animation and the ways in which they can and should be applied to 3D animation in order to produce appeal. He highlights the specific evolutions of each of the principles when applied to three-dimensional spaces and forms, and examines the manner in which squash and stretch becomes a tool for turning static, rigid meshes into organic deformers or for counteracting the effect of strobing[65]. He considers the impact of Z-space on staging and the need for even more planning in order to lead the viewer's eye towards characters or events that are integral to the understanding of the story. He highlights the animation of *Luxo Jr (1986)* as a case in point stating that careful attention had to be paid in order to ensure that one character did not upstage the other. Lastly, Lasseter describes the complexities and challenges, specific to CG animation as a medium, including timing and spacing, the workflows which needed to be developed in order to control splined animation or the limitations in exaggerating a pre-modeled and rigged character which does not allow for the same level of freedom that hand-drawn animation does in terms of exaggerating and manipulating forms on the fly (Lasseter 36 - 44).

[65] Strobing occurs when objects move with great speed and the pixel real estate between poses is extended, resulting in poses that no longer overlap each other and which provide no buffer to soothe the eye. In these cases a viewer may pick up on the fact that the movement is constituted out of individual frames. The solution to this is generally motion blur, which interpolates the contours of shapes in motion, effectively blending the images back together, but in instances where motion blur is too computationally expensive, squash and stretch can be an effective substitute.

As a consequence of this last point, perhaps the single most significant distinction between the styles of character performance developed at Disney and Pixar would emerge. As a result of Lasseter, Pixar was adopting exaggerated movement, squash, stretch and all of the other principles of animation in the production of big bold gestures and poses, but early computer-generated workflows could not allow for rigs to be pushed to the same extent that smear frames, which traditional cel animation had utilised, allowed for. Consequently, Pixar moved towards motion blur as a means of smoothing exaggerated movements which resulted in even less metamorphosis of shape than was evident within Disney's traditionally animated catalogue.



Fig. 24. Motion Blur
Presto (2008)
Pixar

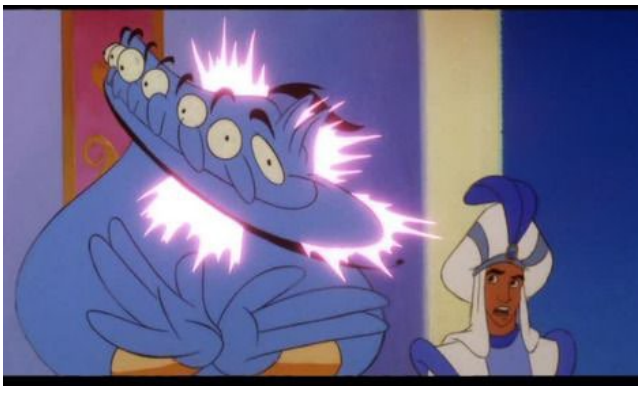


Fig. 25. Smear FramesFig.
Aladdin (1992)
Disney



26. Smear Frames
Frozen (2013)
Disney

2.2.4 Sound

In terms of the implementation of voice overs, Pixar has, historically, aligned itself with the Disney model utilising predominantly American voices wherever locality does not demand a specific dialect. However, one of the primary differences between Disney and Pixar is their respective implementations of musical score. While Disney opts for a reliance on choreography and musical theatre within its narratives, Pixar does not, electing instead for the composition of themes for particular characters or relationships which are repeated at key moments within the narrative as in the case of Ellie's theme in *Up (2009)*, which eventually becomes synonymous with Carl's longing for her.

After considering each of the prior criteria (narrative, form, space, movement and sound) then Pixar's approach can be considered a continuous endeavour towards caricatured realism, heavily influenced by the Disneyesque aesthetic wherein the real world is looked to for inspiration, but nature is tamed and subjected to restructuring in order to assist the audience in assimilating it. The following chapters will examine the aesthetics of early South African CG animation via the comparative analysis of two case studies: Triggerfish Animation and Sunrise Productions. As both studios have stop-motion origins, the evaluations will begin with the consideration of the stop-motion aesthetic developed at the respective studios, in order to determine how this aesthetic may have influenced further CG animation development. Thereafter, both Triggerfish and Sunrise will be considered relative to each other, and to the dominant American CG animation aesthetic, as characterised by Disney and Pixar, outlined within this chapter. The aim is to ascertain whether either studio has been successful in establishing an identifiably South African CG animation aesthetic, or, if the influence of Western animators during the establishment of the local animation industry, a reliance on the advertising sector as a primary market due to stunted industry development as a result of trade boycotts and censorship during Apartheid, a lack of domestic funding, or the post-colonial internalisation of the belief that South African artistic practice is inferior to its western counterparts, has resulted in the adoption of mainstream American stylistic conventions at the expense of the development of a distinctive and culturally specific animation aesthetic.

Chapter 3:
Triggerfish: A Case Study

This chapter consists of a comparative analysis of the computer-generated feature film animation produced by Triggerfish and its earlier stop-motion precursors. The aim is to determine whether or not the distinctive and culturally specific aesthetic achieved within their stop-motion work has been successfully translated into their computer-generated animation. This chapter begins with a brief overview of the production context which informed the development of Triggerfish's style of animation, in order to provide an environmental framework within which representative productions will be selected for evaluation. A textual analysis of selected works produced by the studio follows in order to critically assess whether or not Triggerfish has been fruitful in the development of a distinguishable CG aesthetic.

In his consideration of the stop-motion animation produced by Triggerfish, and their precursors at Klaybow Films and XYZoo, Haycock identifies the distinctive use of local ethnic signifiers within the production design of Triggerfish's work. He argues very successfully that the use of cultural iconography resulted in the establishment of a recognisable and culturally specific South African aesthetic. In his analysis of Triggerfish's stop-motion work Haycock refers to Wells' classification of animation as either "orthodox" or "experimental" and he uses this binary system of classification in order to categorise and describe South African stop-motion, created between 1985 and 2005, as either adhering to experimental or orthodox conventions of narrative and design. Ultimately, Haycock asserts that Triggerfish's early work can be classified as experimental (Haycock 37). However, this chapter will not be adopting Haycock's strategy of viewing Triggerfish's early work through the lens of experimental animation as this early animation, despite being allowed relatively large amounts of freedom in its exploration of style and material, was still produced as service work for a major international brand. This suggests that a certain amount of continuity and brand alignment in terms of narrative or design elements would have been ensured, situating Triggerfish's early stop-motion animation outside of Wells' oppositional classification method. However, this chapter will adopt the structure constructed for Haycock's textual analysis which consists of the consideration of narrative and structural design, the treatment of three-dimensional forms, the treatment of three-dimensional spaces and the treatment of movement and sound as this analytical model provides an effective device for my own deliberations. The work which will be critically assessed includes the episodic stop-motion work produced for *Takalani Sesame (2000-2005)*, and the studio's second CG animated feature film *Khumba (2013)*.

3.1 Production Context

In its original embodiment Triggerfish was a stop-motion studio whose aesthetic came to be defined by its founder Trowell having studied independent animation production early in her career whilst employed by Van Blerk and XYZoo (Haycock 94). Trowell would later draw influence from the alternative and culturally specific work produced by the great Czechoslovakian puppet animators whose work she had been exposed to at XYZoo[66], and would begin investigating the development of an identifiably South African stop-motion aesthetic.

Trowell's opportunity to explore more alternative animation aesthetics came in the form of *Takalani Sesame (2000-2005)*, the South African iteration of the international children's educational television brand *Sesame Street*. *Takalani Sesame (2000-2005)* was launched in 2000 as a co-production between the South African Department of education, the South African Broadcasting Corporation, local South African production companies (including Triggerfish) and the show's New York originator the Children's Television Workshop. The aim of the global franchise (CTW), which establishes local versions all over the world, is to adhere to strict guidelines conceived by the American creators, whilst at the same time creating a space for collaboration with local artists and filmmakers in the production of culturally specific content. Broadcast in multiple languages, in different time slots, on different channels across the SABC platform, *Takalani Sesame (2000-2005)* consisted of puppets and live actors and actresses interacting in five to ten-minute segments, with short animated inserts between these segments aimed at recapturing the attention span of young children (Mbogo 12).

In his analysis of *Takalani Sesame (2000-2005)*, Fred Mbogo points out that the stop-motion inserts created for the series were produced with the intent of representing racial and cultural heterogeneity, which positioned it as an ideal platform for challenging the prior ideologies of apartheid policies. He highlights the fact that the show also addressed the difficulties of representing South Africa's multiculturalism and its eleven official languages, through a diverse and multilingual approach to characterisation and narrative (Mbogo 14-15). As a result of its transcendental potential stop-motion prove to be a very appropriate medium for *Sesame Street*'s multicultural approach,

Trowell, who fulfilled the roles of writer and animator, received a breakdown of the intended learning outcomes for each episode and then generated written concepts for short animations reflecting these themes, Jane Appleby the storyboard artist then drafted visualisations of the concepts which were sent to the New York head office for approval. Once approved, the characters and sets were designed and constructed and two shorts would be shot simultaneously (Haycock 111).

---

[66] In his 2005 dissertation Andrew Haycock records that Trowell and other animators working under van Blerk at XYZoo were encouraged to study an eclectic collection of experimental animation including work by Norman Mclaren, Jiri Barta and Jiri Trnka. The development of the traditionally inspired, yet subversive or re-interpretive, stop-motion aesthetics produced in Eastern-Europe in the 1950s would greatly influence Trowell later in her career.

This focus on themes of inclusivity would be continued after Triggerfish's move to the medium of CG animation. In an interview with CNN Entertainment, Stuart Forrest stated that *Zambezia (2012)* broaches the theme of reconciliation and approaching communal understanding in a South African context, whilst being targeted at audiences both in South Africa and internationally (Kermeliotis 2012). If one considers the potential of CG animation for the transfiguration of three-dimensional spaces and forms, Triggerfish's distinctive and already established stop-motion aesthetic, and the narrative theme of an evolving society central to *Khumba (2013)*, then it is reasonable to expect that the studio's earlier South African street art aesthetic would be further explored and matured within the newly adopted medium of computer-generated animation. Through utilising the parameters established at the beginning of this chapter I will now discuss both the stop-motion work produced for *Takalani Sesame* (2005-2005) that established Triggerfish's reputation and distinctive style and the studio's second CG feature film *Khumba (2013),* with a focus on narrative, space, form, movement and sound.

3.2 An analysis of the early stop-motion animation produced by Triggerfish Studios

Much of the conversation surrounding stop-motion animation as a medium concerns its potential for transfiguration. However, no other animated medium provides greater opportunity for transmutation than computer-generated animation. Its inherent ability to operate within the realm of realism, to supersede realism in the fabrication of the fantastical or, alternatively, to exist in an esoteric state between the spheres of configuration and abstraction, renders it limitless in its potential for metamorphosis. The remainder of this chapter aims to establish whether this capacity for the evolution of aesthetics was fully utilised in the development of a recognisably South African aesthetic after Triggerfish's move to CG as a medium.

3.2.1 Narrative and Structure

In their paper, *A Case Study of the Takalani Sesame Program in South Africa*, Tamagnan, Meredith and Kato begin by highlighting the fact that the South African adaptation of *Sesame Street* places a strong focus on content that revolves around developmental skills relevant to a South African context. It is this focus on locality of context and a distinctly South African audience demographic that created an ideal environment for the development of a visual language derived from local cultural signifiers. Children's content that is aimed at international distribution is commonly characterised by an attempt at universality of narrative and character design in order to appeal to both a local and a global market. However, the educational curriculum underlying *Takalani Sesame (2000-2005)* and it*'s* stop-motion visuals was meticulously constructed by a team of South African early childhood development and education experts, with the aim of reflecting the multi-cultural society specific to South Africa through the usage of culturally specific phenomena. These phenomena included the high percentage of HIV within local communities and the at times uneasy relationship between tradition and modernity, both of which served as narrative

devices for the incorporation of three core competencies: cognitive, intrapersonal, and interpersonal skills.[67](Tamagnan, Meredith and Kato 10).

The animations that Triggerfish were commissioned to produce for *Takalani Sesame (2000-2005)* all follow linear narrative structures, but at the same time are intended to support various educational goals such as literacy, numeracy or life skills. Themes varied from demonstrating basic life skills such as brushing your teeth, as seen in *Red Brushes Teeth*, to environmental messages like the cycle of plant growth as seen in *Elements of Nature*, in which a farmer plants a seed and waits for it to grow (Haycock 110-112). Trowell and her team also made use of recurring characters which became associated with specific themes, for example, Red became synonymous with life skills, while the beaded farmer represented environmental and rural concerns (Haycock 114). Ultimately, although *Takalani Sesame (2000-2005)* follows linear narrative structures, the short non-sequential format and the strategy of utilising cultural phenomena to inform both plot and production design results in a series of narratives that are immediately recognisable and relatable to South African audiences.



Fig. 27, Still from*Red Brushes Teeth*,

Takalani Sesame,

Children's Television Workshop



Fig. 28, Still from *Elements of Nature*,

Takalani Sesame,

Children's Television Workshop

[67] Cognitive competencies centre around logic, reasoning, problem-solving, and memory retention. Intra-personal competencies are concerned with emotional well being, independence and the ability to effectively manage aspirations and expectations. Lastly, interpersonal competencies revolve around empathy, the ability to interpret and expressinformation to and from others, and how to evaluates applicable responses. communication, critical thinking, and collaborative skill sets, all of which are becoming increasingly recognised (Tamagnan, Meredith and Kato 3-5).

3.2.2 Three Dimensional Forms

While I disagree with Haycock's categorisation of Triggerfish's stop-motion animation under Wells' experimental classification, Wells' writing regarding symbolism and animation is instead very appropriate for discussing *Takalani Sesame (2000-2005)*. Wells asserts that "The symbol in animation can operate in its purest form, divorced from any relationship to the representation in the real world, finding its proper purchase in the realms of the primal source. Everything in animation is a symbol. It is a constructed image (in a variety of available media) that often is a representation of the real, but on occasion more abstract representations of emotions and sensations…" (83). This becomes relevant when considering the three-dimensional forms established within Triggerfish's stop-motion contributions as their materiality and cultural significance renders them physical manifestations of theoretical concepts used to communicate abstract ideas to a young audience.

Unlike XYZoo, who under the leadership of van Blerk had adopted and adapted the claymation aesthetic alongside the more naturalistic proportion and appearance associated with Vinton's puppetry and set design (Haycock 88) or Disney's two-dimensional animation, Trowell opted for an aesthetic that was largely influenced by African traditional art, street art and tourist craft, with many of the puppets and sets being constructed out of wire, beads, plastic shopping bags and tin cans - all of which are materials commonly used in the assembly of curio sculptures found in rural areas and townships within South Africa. The utilisation of street art was a very judicious decision as it meant that the armatures that allow the puppets to articulate could become part of the overall aesthetic, with most puppets simply having additional materials sewn onto, or otherwise attached to the skeletons (Haycock 119). The repurposing of found materials was also perfectly suited to visual learning as the shapes and forms of the characters became instantly recognisable and familiar. In fact, even the usage of clay within the Triggerfish shorts appears to have been influenced more by African sculptural tradition than it does by European or American sculptural practices, with Red tending far more towards abstraction within his design than the naturalistic clay forms associated with ZYZoo in films like *Michael the Visitor (1995)*. Red, as the name suggests, is comprised of clay of only one hue and is constructed of basic, almost geometric, shape language, with his facial features being subtracted to the point of minimalism and his limbs elongated and exaggerated. All of these traits service Red's relatability as a character without gender or race, making him 'belong' to all genders and cultures (Haycock 121). This implementation of abstraction over naturalism in Triggerfish's stop-motion animation renders the *Takalani Sesame* characters distinctly different from established Western commercial modes of character design.

Fig. 29, Still from *Michael the Visitor*,

XYZoo,

Billy Budd Films



Fig. 30, Still from *Red Brushes Teeth*,

Takalani Sesame,

Triggerfish,

Children's Television Workshop



3.2.3 Three Dimensional Spaces

The motif of South African street art, curio art and other culturally specific iconography throughout the world building within *Takalani Sesame (2000-2005)* results in two distinct repercussions. Firstly, the repetition of immediately recognisable forms stimulates recognition and assimilation within children, promoting learning and retention (Haycock 124) and secondly, beyond the scope of educational reinforcement, it provides opportunities for the re-invention of familiar forms in unfamiliar contexts, which can be used to surrealistic, grotesque or fantastical effect resulting in unsettling, uncanny or whimsical imagery, and producing a sense of nostalgic sentimentality which could potentially lead to the personification of more complex landscapes and the attachment of intricate attitudes and ideologies to them.

The availability of ready-made objects for metamorphosis is a characteristic component of many stop-motion sets. Scraps of wire, bottle caps and even plastic shopping bags are all utilised in order to construct a world in which the cast resides. Whereas Disney went to great lengths to mask the fabricated nature of their environments with camera innovation and sophisticated special effects, the sets built for *Takalani Sesame (2000-2005)* do not attempt to disguise their construction. Instead, Triggerfish

opted for simplistic, highly stylised compositions that utilise the arrangement of two-dimensional and three-dimensional forms in the assembly of culturally significant patterns, such as the Ndebele wall art in *Chickens Recycle* or the beaded rain clouds in *Elements of Nature* (Haycock 122). Both these animations integrate flat space and theatrical staging in a way that underscores the fabrication of the sets. Even the residual fingerprints, brush strokes or tool marks that can be seen on various props within *Takalani Sesame (2000-2005)*, for example, those in *Redbrandt*, can be viewed as the deliberate emphasising of artistic intervention.

Fig. 31, Still from *Redbrandt*,

Takalani Sesame,

Triggerfish,

Children's Television Workshop



Fig. 32, Still from *Redbrandt*,

Takalani Sesame,

Triggerfish,

Children's Television Workshop



Fig 33, *Elements of Nature*,

Takalani Sesame,

Triggerfish,

Children's Television Workshop

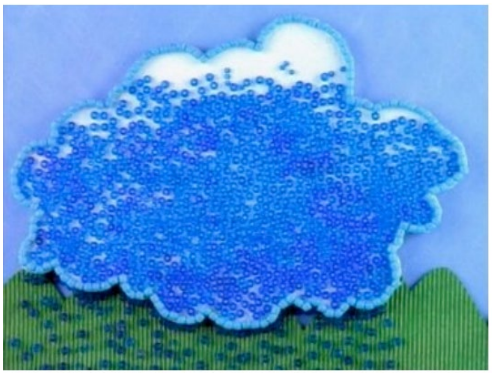


Fig 34, *Chickens Recycle*,

Takalani Sesame,

Triggerfish,

Children's Television Workshop



3.2.4 Movement

All animated modes of expression are defined by various strengths and limitations and stop-motion is no exception, with the three primary forms of stop-motion: pixilation, clay and puppet-based all subject to unique characteristics provided by their distinctly tangible nature. The puppets that Trowell and her team constructed were all largely defined by the physical properties of the materials that constituted them. The fact that the majority of the puppets were made from solid materials (due to their reliance on the beaded wire forms characteristic of South African tourist curios) culminated in dual consequences: firstly, the advantage was that it provided an instantly recognisable aesthetic as the puppets were linked, through their construction out of objects frequently found in urban areas and their visual resemblance to street art, to a contextual reality or fantasy world based on and never too far divorced from, yet simultaneously distinct from, the real world. While directors like Tim Burton, Wes Anderson and Travis Knight are exceptionally adept at establishing surreal worlds through the medium of stop-motion, it is noteworthy that despite these worlds operating as dislocations from reality they share a commonality in their use of culturally specific iconography in the construction of their characters and environments. This may suggest that the inherent physicality of the puppets forces the director to engage more overtly with the character's contextuality and to consider the world of the narrative, and the manner in which the characters move through this world, as a central element of the film. The construction of puppets out of physical materials is a characteristic advantage of stop-motion over CG animation, as the natural anchoring of characters constructed from found objects to the context from which they originate is not inherent in CG production where context must be constructed through the generation of a digital domain for computerised characters to populate.

Conversely, the construction of non-articulated puppets resulted in limited ranges of movement both in terms of subtle body articulation and facial performance. As a result, the animation is dependent upon instantly recognisable and evocative key poses, repetitive rhythmic movements and further embellishment of narrative and characterisation through broad gesture and timing, without much exploration of the complexities of characters. This limitation of articulation is evident in all of the sequences within *Takalani Sesame (2000-2005)* which feature collective characters. Generally, these shots operate on the principle of affinity and contrast, with numerous characters behaving in precisely the

same way and an “outsider” character who is distinct visually through design, but also through movement. A clear indication of the limited articulation characteristic of the street art puppets used by the Triggerfish can be seen in *Dancing Chameleon,* in which the chameleon puppet is solely capable of rudimentary bends on its limbs and no alterations to its spine, resulting in linear backwards and forwards movements and up and down translation in time to the beat of the music .

Fig. 35. Dancing Chameleon: Limited Movement

Takalani Sesame,

Children’s Television Workshop



Fig. 36. Dung Beetle: Limited Movement

Takalani Sesame,

Children’s Television Workshop



Haycock, in his analysis of Trowell and her team’s animated contributions to *Takalani Sesame (2000-2005)*, highlights the fact that there is a definitive dissimilarity of aesthetic between the claymation sequences introducing Red and Buggley and the puppet-based shorts that accompany them (126). In the claymation sequences not only are timing and posing used to communicate narrative devices, but there is also an accompanying depth and richness of performance that comes from subtler, more nuanced gesture that incorporates the principles of animation such as anticipation and follow-through - culminating in characters with their own identifiable attitudes and perspectives. However, while these clay performances are more refined, they are consistently stylistic and simplistic in design and movement as required by the target demographic of young children. The restricted movement and resultant lack of individuation in Triggerfish’s stop-motion work operate in stark contrast to established American mainstream conventions of performance which focus on characterisation through movement.

3.2.5 Sound

Two observations are particularly noteworthy when considering the application of sound design in the Triggerfish shorts produced for *Takalani Sesame (2000-2005)*. The first is that South Africa has eleven official languages, which quickly becomes very daunting when creating content for South African viewers, and the second is that the South African Constitution specifically affords students the right to select their language of instruction for education (Tamagnan, Meredith and Kato, 18). Within this framework, early iterations of Takalani Sesame *(2000-2005)* tried to incorporate all eleven official languages by recording different segments of the show in different languages, however, it was soon found that the multilingual segments were counterproductive as children lost interest when they were not able to understand segments in other languages. As a result, a new strategy was implemented in which every episode was broadcast on different days in different languages in its entirety, allowing for nine of the eleven official languages to be broadcast and for Takalani Sesame *(2000-2005)* to be followed and absorbed by its toddler viewership for the duration of entire episodes (Tamagnan, Meredith and Kato, 19-21).

While Takalani Sesame *(2000-2005)* was tackling the difficulties involved in a multilingual approach to content creation within its live-action component and evaluating potential solutions for the issues that arose from trying to broadcast to a linguistically diverse audience, Triggerfish was also constructing a very effective model for the development of visual narrative for a heterogeneous audience. Through the exclusion of dialogue and the reliance on what Wells refers to as "the dynamic of musicality" (Wells 46), Triggerfish were able to circumvent the potential logistics nightmare of trying to communicate narrative in nine of the official languages. The Triggerfish animations all incorporate Afrocentric music and foley, such as cicadas and long-tailed widowbirds[68] while deliberately excluding any spoken word. Through this strategy locality is established and the context feels familiar. Choreography is utilised in the construction of narrative through dance, however, unlike Disney's implementation of choreography in order to include lyrical narration, *Takalani Sesame (2000-2005)* implements choreography in the form of mime.

[68] Cicadas are insects which favour warm climates and are known for the distinctive sound which they make, while the long-tailed widowbird is a species of bird indigenous to Sub-Saharan Africa and known for its particularly lengthy plumage.

3.3 A Distinctly South African Stop-Motion Aesthetic?

Haycock concludes his thesis by arguing that a culturally specific and locally identifiable aesthetic was successfully established by Triggerfish in the production of their stop-motion animation. He bases his assertion on the overt influence of urban curio art on Triggerfish's work in service of *Takalani Sesame*. The type of street art to which Haycock is referring originates from townships within South Africa. As urbanisation of rural areas took place, traditional craftspeople began to incorporate the metropolitan materials which were now at their disposal, such as, galvanised wire, tin cans, plastic shopping bags, oil and petrol cans and telephone wires in the fabrication of novelty souvenirs for tourists (Rankin 71). This influence can clearly be seen within the puppet and set design which unequivocally references the tradition of creating decorative forms out of recycled material for sale at urban tourist markets.



Fig. 37, South African Street Art: Beaded & Wire Tourist Curios

Masimba Dombo, Johannesburg



Fig. 38, Still from Coughing Cows

Takalani Sesame

Children's Television Workshop



Fig. 39, Still from Chameleon Dancing

Takalani Sesame

Children's Television Workshop



Fig. 40, South African Street Art:
Plastic Bag Chickens
African Cartel



Fig. 41. *Chickens Play Soccer*
Takalani Sesame
Children's Television Workshop

Through these examples we can see that many of the aesthetic conventions derived from cultural practices or traditions, street art and access to materials that are reflected in the work of various South African artisans are also present within the stop-motion animation produced by Triggerfish during the late 90s and early 2000s. This, in conjunction with Triggerfish's clear divergence from established mainstream modes of production, confirms Haycock's assertion that Triggerfish did successfully conceive of an identifiably local stop-motion aesthetic through the incorporation of narrative themes and visual language distinctive to a South African context. The following subsections aim to identify whether or not this South African aesthetic would continue to develop after the studio's move to CG.

3.4 An analysis of the CG animation produced by Triggerfish Studios

3.4.1 Narrative and Structure

Khumba (2013), Triggerfish's second feature film, also keys into themes of community and multiculturalism, a coming of age story, it centrs around a young zebra born with only half of his stripes. Shortly after Khumba's birth, his community of zebras' idyllic kraal is threatened by drought and the superstitious zebras become convinced that Khumba's lack of stripes is a bad omen responsible for the lack of rain. His social exclusion leads Khumba to set off in search of a magic water hole that he believes can restore his lost stripes. During his journey Khumba befriends Mama V (a wildebeest) and Bradley (an ostrich), and they travel together in search of the waterhole, however, in doing so draw the attention of Phango a vicious, half blind leopard who begins stalking Khumba, believing him to be the subject of a prophecy in which the leopard who consumes him will be granted great power. Ultimately, Khumba evades and defeats Phango learning to accept his differences along the way and helping his herd to see the error in their reclusive ways

before leading them to reintegrate with the rest of the animal society.

When considering *Khumba (2013)* then the issue of narrative and structure becomes particularly relevant. Both *Khumba* (2013) and *Adventures in Zambezia* (2012) were produced within a time frame where film is subject to scrutiny through the lens of postcolonial theory, yet at the same time is impacted by the often oppositional expectation that it will follow established mainstream European narrative frameworks. These frameworks include linear story progressions, adherence to three-act structures and the formulaic hero's journey. As a result various critiques of *Adventures in Zambezia* (2012) and *Khumba (2013)* have categorised them as colonial safari film style adventures, for example Kavish Chetty, writing for *Mahala Magazine* describes *Khumba (2013)* as "(allowing) the dull drift of market forces to blunt its "locality", turning Africa into a placeholder for the projection of western fantasy" (Chetty, 2013). However, Silverston is unphased by such critiques, stating that a viewer can and will impose their own interpretations onto the narrative and that the studio's decision not to portray people within *Khumba (2013)* was not as a result of the intention to represent Africa as wild or untamed, but as a result of budgetary restrictions and the desire not to remove the audience from the animal's world (Silverston).

Chetty's argument for the fact that *Adventures in Zambezia* resonates with colonial representations of deepest, darkest Africa is rooted in the discourse surrounding the colonial safari as a sanitised way to enjoy an exotic spectacle through the safety of a lens. However, viewing either film solely in this light is not only reductive, but also problematic as it ignores the potential to interpret the segregation in *Zambezia (2012)* and *Khumba (2013)*, and the shared themes of Ubuntu[69] and reintegration, as representative of shifting notions of identity or the redefining of public space that characterises post-apartheid South Africa. Khumba (2013) can be seen as much as a narrative of specifically South African spatial and cultural disjunction as it can of colonial fabrication surrounding an African fantasy land, as is evidenced in this quote by Silverston, "we did all laugh at how, subconsciously, we had written both *Zambezia (2012)* and *Khumba (2013)* as such obviously post-apartheid stories. In both stories the lead essentially broke out of his isolated home and joined the global community, which is what it felt like when apartheid ended and South Africa joined the rest of the world" (Silverston).

In an article titled *Animating Transnational Capital* Lee Artz asserts that animated feature films produced for global distribution tend to follow well-established protocols, whether produced by major American companies or smaller independent companies such as Triggerfish. Artz argues that animated films generally promote individualism through a central protagonist who undergoes a journey of self discovery and transformation without ultimately changing the existing social order (102). However, while *Khumba (2013)* does follow the conventional Disneyesque plotline of anthropomorphic animals triumphing over setbacks to find love, it distinguishes itself from the Disney paradigm and resists Artz' categorisation as a film promoting self discovery at the expense of social transformation, through Khumba's disruption of the segregated social system that exists at the start of the film and the institution of a newer, more inclusive

[69] Ubuntu is an African philosophical concept which focuses on the importance of belonging to a community and practicing empathy towards others.

community at the end of the narrative (Wittenberg 140). In *Khumba (2013) the* use of allegory to engage with the distinctly local subject matter of racial difference and transformation results in a narrative which is unashamedly South African, yet does not alienate itself from an international audience.

3.4.2 Three-Dimensional Forms

Considering Triggerfish's origins as a stop-motion studio known for its distinctive aesthetic derived from South African street art, it doesn't seem untoward to expect some level of stylisation or abstraction within the studio's approach to production design and character development for both *Adventures in Zambezia (2012)* and *Khumba (2013)*. However, Silverston warns against such preconceptions, "I think the danger is to conflate the idea of designing for an international audience versus creating an appealing design that will entertain family audiences. There are some designs that are perhaps too stylised to hold up for a story that needs to engage attention for ninety minutes, whereas for a short film that is less important". While Silverston does make a very valid argument for the fact that attempting to compare the level of abstraction possible within short-format or non-linear narratives and what is suitable for full-length feature film animation constructs a false equivalence, various studios such as Aardman, and directors like Tomm Moore, have developed exceptionally distinctive aesthetics in terms of their utilisation of colour, pattern, space and perspective in environment design and shape language in the design of their characters within the field of feature length animation (consider Moore's usage of flat space and stylised iconography in *Song of the Sea* (2014)) This suggests that there may be an alternative motivator for the studio's move away from its already established South African urban wire art aesthetic.

In fact, there are numerous potential reasons for Triggerfish's quite sudden abandonment of its stop-motion aesthetic after the studio made the move to CG: The first is that the change in format from short inserts designed for episodic animation, which allow a lot of room for experimentation and abstraction, to feature length animation which requires continuity of design and visual forms which quickly and clearly emphasize or suggest narrative elements, resulted in Triggerfish choosing to move towards a less abstract design style for the sake of clarity of story. The second, is that after Forrest's acquisition of the studio and the shift to CG as a medium, his initial intent had been to continue running the studio as a service destination for the local advertisement sector and that, having seen the decline in interest in stop-motion from local advertising agencies first hand, Forrest sought to develop a new aesthetic that would divorce Triggerfish from its earlier stop-motion roots in the minds of local advertisers (Forrest). In addition to this, in 2006 when Forrest officially took over Triggerfish, there weren't a great many schools or colleges offering 3D animation tuition in South Africa, and those that were primarily functioned as software training centres teaching the ins and outs of using various software packages, rather than the intricacies of crafting design and performance. As a result, many South African CG artists were largely self-taught at the time and still becoming familiar with their tools. Experimentation with stylisation or abstraction is most successful once artists are familiar with their medium and understand both its advantages and its limitations, and a lack of familiarity with the medium further facilitated studios defaulting to mimicry of Pixar's aesthetic. In addition to this, online tutorials, training forums and other

sources of support for CG artists commonly use movies by Pixar and Dreamworks as points of reference, all of which resulted in Triggerfish developing character designs which are very reminiscent of the type of shape language utilised in Dreamworks' *Madagascar (2005)*.

In a review for *Variety,* Guy Lodge refers to Triggerfish's CG features as "doing a slick imitation of a Dreamworks-level jaunt, but (limiting) local colour to amusing sideshow attractions" (Lodge, 2013). The choice of comparison between Dreamworks and Triggerfish is an apt one as there are strong correlations in character development between the *Madagascar* series (2005-2012) and *Khumba (2013),* both of which feature animal designs that are graphic and hard-edged, embodying subtle elongation and condensation of forms. While the character designs created in *Khumba (2013)* are appealing, and communicate characterisation effectively through shape language which supports personality and differentiation of forms across the cast, they are very much aligned with Dreamworks conventions of character development and the production of 3D forms which can easily be adapted to fluid, traditionally influenced character animation. In fact, the primary difference is that the animals in Khumba's Karoo are a little more realistic, in terms of their fur and joints than those who inhabit Dreamworks' *Madagascar (2005)*, with their impossibly short fur coats and implausibly angular limbs. A dissimilarity established by the differing styles of performance: *Madagascar (2005)* opts for zany, impossible actions and reactions, which informs the angular, cartoony design of the characters, while *Khumba (2013)* opts for a more naturalistic style of movement, facilitating less overtly aggressive, but still exaggerated angles.



Fig. 42. Nigel

Khumba, 2013

Triggerfish



Fig. 43., Zebra Characters

Madagascar, 2005

Dreamworks



Fig. 44. Marty
Madagascar, 2005
Dreamworks



Fig. 45. Khumba
Khumba, 2013
Triggerfish

3.4.3 Three-Dimensional Spaces

Interpretations of space as a cultural construct provide an appropriate platform from which to launch an investigation into ideologies linked to environmental representation. In his textual analysis of J.M Coetzee's *Foe,* and its underlying theme of colonisation, Hermann Wittenberg proposes spatial analysis as a model better suited to interpreting the complex relationships between "representation, colonialism and the creation of subjects" (Wittenberg 7). While Wittenberg's model is primarily intended for historical and literary analysis, I believe that it is highly relevant to animation as an art form as animation, specifically, is built around concepts integrating time and space in ways that are often unique to the medium positioning it as an ideal candidate for spatial analysis.

One of the central ideologies that Wittenberg investigates is the concept that space is just as essential to historical or social understanding as time. At this juncture, it is important to note that understandings of space, in a theoretical context, concern themselves with cultural perceptions and representation rather than topology or physical terrain. Space in the context of film does not merely exist as a core component of a physical landscape, but also as a cultural signifier. In other words, theories of spatiality, as they pertain to this analysis, can be viewed as terrain encountering the subjectivity of its own inhabitants (native or alien). This reciprocal nature of space results in a dichotomy in which spaces may both be subjugated by imposed understandings of identity, yet at the same time, may also act as influencers of opinion. (Foster 2) As such spatial analysis of animated works such as *Khumba (2013)*, have the

potential to expose the dominant ideologies of the cultures that produce them. Wittenberg makes a strong case for spatial research models as an ideal structure with which to tackle issues of identity in colonial or postcolonial spaces (Wittenberg 7), and as such, this spatial model presents a fitting apparatus for analysing Western influences and perceptions that may have shaped the representation of specific locations within animation.

If we consider the impact of colonialism on the countries, or spaces, which western sovereign states invaded, a repetitive topology of supremacy emerges in which dominant cultures concentrated their economic, cultural and societal efforts within metropolitan, first world centres, while colonies were marginalised, existing exclusively on the peripherals in order to better facilitate their control and exploitation (Soja 27). This atomisation of spaces into nuclei controlling capital and peripheral support determined a certain degree of alteration of the physical landscape, or what Soja terms the "denaturalisation" of space (79). Capitalism demands not only industrialisation of the physical environment, but also the alteration of the built environment into urban and rural zones. The urban zones provide both labourers and consumers in order for capitalist economies to sustain themselves, while rural environments are transformed into romanticised landscapes acting, through various modes of representation, as canvases for the projection of fantasy by the frustrated labour force who long nostalgically for the freedom of nature. For that reason Soja considers space, not to be natural, but economic and ideological (79-80), reflecting dominant powers through the manner in which they shape the landscape via either industrialisation or representation.

The argument of colonial representation and that Triggerfish's feature films are representative of fragmented imperial structures of power, forms the basis for Tanya Blaeser's thesis: *A postcolonial analysis of colonial representations in Triggerfish's animated films Khumba (2013) and Adventures in Zambezia (2012).* She begins her discussion with a focus on *Zambezia,* the tale of a falcon named Kai finding his place in the bird community. Blaeser considers the environments within *Adventures in Zambezia (2012)*, asserting that the initial perception created for us of Katungu, the fictitious African territory in which Kai and his father Tendai abide, is one that ignores the complexities and contextuality of Africa and its inhabitants, in favour of reduction towards a romanticised fantasy world in which trailblazers and explorers alike can act out their respective journeys of self-discovery (42-45). Through the explicit claiming of Africa as the setting for the story, but the failure to provide any semblance of further locality or context beyond the fictitious landscapes of Kutungu, which consists of unidentifiable amalgamations of African terrain mashing together tourist landmarks like Victoria Falls and hostile desert wastelands, *Adventures in Zambezia (2012)* promotes representations of Africa as "a vast cultural blankness" (Apter and Demissie 561). The absence of not only human characters, but any trace of human civilisation, further promotes reductive views of Africa as primitive and existing outside of the realms of modernity, enforcing Edenic misconceptions and sentencing the continent to exist outside of history, prohibiting it from any contribution to the global canon (Harth 12). This choice to ignore the intricacies of African culture and history is unfortunately not new in animation with a long history of problematic representations plaguing the medium, most notably in productions like *Jungle Jitters (1938)*,

but also in more contemporary features such as *The Lion King (1994)* which too adopts homogenous representations of African landscapes.

However, Blaeser's argument quickly becomes problematic when she turns her lens of post-colonial scrutiny onto *Khumba (2013),* stating that the trailer, which invites the viewer to "Experience the adventure of a lifetime on the wildest safari ever", is indicative of the colonial language used to envision Africa for western audiences. She proceeds to acknowledge that *Khumba (2013)* is expressly set in the Karoo, differentiating it from the lack of diversification in *Zambezia,* however, she dismisses the motif of panoramic landscape shots which display a "distinctive and highly detailed" (66) environment, as servicing the framing of the narrative as a safari film characterised by scenes of arrival and departure, peril and picturesque intervals of rest at tourist locations devoid of humans. This assertion is extremely reductive. Firstly, Blaeser's focus on the colonial language inherent within the trailer is a mistake as film trailers are produced by the distributors, not the studio, and as such are merely representative of the language adopted by the distributor to appeal to a particular region, not of the content of the film or the perceptions of Triggerfish with regard to their subject matter. Secondly, Blaesser's assertion that a focus on the environment serves to exclude human characters and present a western perspective of Africa which does not allow room for modern Africans (Blaesser 63-68) is entirely dismissive of the inclusion of elements that make the presence of humans apparent within the environment, such as, abandoned quarries and construction sites, roads, roadside rest spots, electric cables, farmhouses, abandoned cars, signage and even jeeps complete with guns and lenses that protrude from the windows. *Khumba (2013)* expressly establishes an African landscape which is not devoid of Africans or modernity, instead it simply chooses to construct an alternative reality in which the animal society is able to live alongside its human counterpart, at times segregated, at times overlapping as in the case of the game reserve, wherein, the meerkat welcoming committee quite candidly reference the waterhole's status as simulacra when the youngest meerkat says, "take refuge in this man-made … (he is nudged and silenced) ...natural waterhole".

This establishment of an alternative reality is indicative of JM Coetzee's considerations of the picturesque within a South African context. In his essay *The Picturesque, the Sublime and the South African Landscape* (1988). Coetzee considers the relationship between European writers and the landscapes in which they are trying to find their place, through the decoding and encoding of the South African terrain as landscape (9), suggesting that the dominant form of colonial representation of South Africa was picturesque in nature. However, rather than supporting romanticised colonial stereotypes of the Karoo *Khumba (2013)* opposes them through its challenging of the picturesque. There is a long history of colonial representations of Africa through Landscape paintings in which the African terrain is subjected to alteration in order to align with centralised western conventions of art making. This can clearly be seen in work by artists like Pierneef[70] who took extensive creative liberties with the landscapes he was recording

[70] Pierneef was a South African landscape artist, who developed a distinctive style whilst studying and representing the South African highveld, which he dedicated his entire career to. His signature aesthetic was comprised of simplifying the landscape to geometric structures which utilised flat planes of colour and strong line to represent their subjects. His approach of restructuring the terrains he painted into formalised, uninhabited perspectives of the South African landscape,often situates his work as the topic of debate concerning dominance and representation.

in order to align them with his traditional western training. Burchell highlights some of the problems which European artists encountered when trying to portray African landscapes, in which the terrain simply does not conform to the European geographic structures on which the principles of the picturesque are based. For example, European landscape paintings are generally characterised by detailed foregrounds subsiding into infinity, whereas foregrounds in African landscapes tend to be empty in comparison. European artists also had to adjust to a starkly different colour palette lacking in dark or rich greens, to foliage without sheen and to a scarcity of reflective bodies of water. “Artists responded by either inventing or forcibly rearranging the landscape to fit into a picturesque scheme” (Coetzee 44).

However, in *Khumba (2013)* spaces function as “anti-picturesque” and serve to problematize the western convention of typical pictorial compositions: consisting of silhouetted framing devices in the foreground and retreating diagonal elements, such as rivers or bridges, in the mid-ground which lead the viewer’s eye towards an alluring backdrop. Blaeser remarks on the dilapidation of the farmhouses, the inclusion of sparse landscapes with skeletons in the foreground and the incompletion of the various sites of construction, considering them indicative of colonial views of Africa as being primitive (71-72). However, these spaces should rather be read as a refusal to conform with picturesque representations that contort African topology in order to align it with western expectation. *Khumba (2013)* divests the Karoo farms that it depicts of their power to naturalise European identity within a South African landscape and instead becomes a site for the deterioration and collapse of such identities (Wittenberg 101). *Khumba (2013)* very effectively exposes the constructed nature of the colonial space which characterised *The Lion King (1994)* through the inclusion of human inhabitants in Africa, ultimately resisting colonial conventions of world building. It criticises representation that supports exclusion, but avoids appropriating the voice of the colonised in an attempt to tell their story, instead, constructing alternative spaces which stand in opposition to the amalgamation of African terrain into homogenous narratives for European consumption. The construction of a barren, desolate Karoo space can be viewed as a deliberate subversion of the colonial trend of glamorising Africa, and the fact that it does not simply resort to purely pictorial sweeping panoramas, but instead includes run down, dilapidated farmhouses devoid of their European occupants, effectively stripping them of their ownership of the land, highlights current issues of land ownership in South Africa. *Khumba (2013)* also makes a point of creating a sense of interconnectedness within its montage shots, with the depicted landscapes appearing closely related to one another; rather than simply adopting approach of splicing together waterfalls and jungles in a single sequence as seen in *The Lion King* (1994).



Fig. 46. Landscape defying the western tradition of including a midground

Khumba, 2013



Fig. 47. Landscape defying the western tradition of including a midground

Khumba, 2013



Fig. 48. The foregrounded skeleton, assisting in an anti-pastoral representation of the Karoo

Khumba, 2013



Fig. 49. Traces of modernity, history and context

Khumba, 2013



Fig. 50. Traces of modernity, history and context,

Khumba, 2013



Fig. 51. Traces of modernity, history and context,

Khumba, 2013



Fig. 52. Traces of modernity, history and context,

Khumba, 2013



Fig. 53. Traces of modernity, history and context

Khumba, 2013



Fig. 54. Traces of modernity, history and context,

Khumba, 2013

3.3.4 Movement

Unlike the highly plasmatic forms of movement found in the *Buggley* stop-motion shorts produced by Triggerfish, or the restricted movement and characteristic lack of individualisation that resulted from the use of curio style beaded wire sculptures with limited articulation, within the performances of the chicken and beetle puppet created for *Takalani Sesame (2000-2005)*, the animated performances in *Khumba (2013)* are more naturalistic in aesthetic and more closely resemble the *Red* shorts, which were influenced by Trowell's traditional training under Van Blerk at XYZoo. This parallel in naturalistic styles of movement between the *Red* shorts, *Khumba (2013)* and *Adventures in Zambezia (2012)* is most likely as a result of an indiscriminate adoption of the Disney Principles of Animation, and other Americanised conventions of animation production, taught at various South African art and animation schools from which the majority of the Triggerfish staff would have graduated. In addition to this, many software packages like Autodesk Maya or the now defunct XSI Softimage, both of which have been used within Triggerfish's pipeline (Buckland), are designed primarily to service the American and European entertainment industries and as such are engineered towards streamlining Americanised design and production processes, resulting in the software itself leading artists towards the emulation of a Pixar-like style of animation. It takes experimentation and refinement of the creative process in order to push the software and the artists using it to develop a style of animation that falls outside of conventional modes of production, and Triggerfish's very limited production budget of 20 million dollars just simply didn't allow scope for this sort of creative incubation period.

It is of the utmost importance that Animation is distinguished from film as its own medium in order to facilitate its unique needs and to allow the government to better support those needs. The current National Film and Video Foundation (NFVF)[71] funding policy reflects the necessity of a complete restrategisation as animation is housed under the umbrella of film and receives precisely the same funding caps as live-action film. For instance, R200,000 is the current cap on pre-production funding available per project from the NFVF, a figure based on a holistic analysis of the local film industry which situates its value chain structure (as cited within the 2017 NFVF annual report), with the following sector weighting: Pre-Production - 3%, Production - 89%, Post-Production - 3% and marketing and distribution - 5% (33-37). In the case of animation, an industry in which the majority of the time invested in a film is primarily attributed to pre-production, these weightings simply do not align.

The majority of mainstream animated movement is constructed upon the foundation of Disney's twelve principles of animation which, while undeniably appealing, are not neutral and often result in the imposing of very specific stylistic conventions upon animated performances. A larger budget may have allowed Triggerfish to experiment with alternative systems of movement analysis, such as Laban Movement Analysis which, unlike the twelve principles of animation, presents a framework for the evaluation of bodies in motion that does not infer any particular bias towards a specific style. Both the twelve principles of animation and Laban Movement analysis aim to output authentic performance through movements that are consistent with character and which clearly communicate attitude and intention as well as action, however, unlike the twelve principles the Laban system does not suggest stylistic propriety.

Laban movement analysis is comprised of five primary categories of movement: Body, Effort, Shape, Space and Phrasing. Phrasing describes how we combine and layer the other components over time, and is responsible for the creation of signature styles of movement, expressed through differing and distinctive rhythmic patterns and personal preferences towards Body, Effort, Shape and Space. The Body category denotes which parts of the body are in motion or stasis and how movement flows from one part to the next and can be compared with Preston Blair's promotion of the line of action. The Effort category refers to contrasting qualities of movement, varying between light and strong (weight), indirect or direct Space, sustained or sudden (time) and free or bound (flow). The four Effort sub-categories of Weight, Space, Time and Flow parallel Jung's four ego functions: sensing, thinking, intuiting and feeling. Shape describes the plasticity of forms and the manner in which they alter over time, revealing how both internal attitudes and external environments may shape and mould the body. Laban also further deconstructed the notion of shape into eight Shape qualities, namely: Rising, Sinking, Spreading, Enclosing, Advancing, Retreating, Scattering and Gathering, all of which are commonly associated with corresponding efforts, such as rising with Light Weight, or sinking with Strong Weight. "The interplay of Flow and Shape forms the basis of elasticity we associate with animation" (Bishko 29). Space describes a body's positioning within, and interaction with, a three-dimensional environment. A great example of a characteristic space associated with signature styles of movement would be Tex Avery's extreme poses

[71] The NFVF is a government bureau of the National Department of Arts and Culture dedicated to the promotion of, and investment and research into, the production of film in South Africa.

(frequently used in constructing performances for the wolf within the Droopy shorts produced for Metro Goldwyn Mayer in the 1940s), which extend beyond the physical parameters of a character's Kinesphere, creating highly elastic spaces supporting highly dynamic gesture (30).

These parameters of movement provide a very interesting framework for the construction of animated performances within the context of the South African animation industry as, firstly, they do not prescribe when certain movements should be employed allowing a style that is free from the inherent imposition of American conventions and which promotes authentic communication and, secondly, they are of particular relevance if we consider the multilingual nature of our socio-political context in which gesture is of elevated importance as a tool for crossing linguistic barriers. While very successful in terms of establishing modes of environment design that express locality and a narrative that speaks to both a South African audience and a global one, and though there is marked improvement in the fluidity and craftsmanship of the performances between *Adventures in Zambezia (2012)* and *Khumba(2013)* a reliance on the Disney principles, over more stylistically neutral techniques for analysing and constructing movement, results in animated performances that feel very reminiscent of American conventions of movement. The CG feature film animation currently being produced by Triggerfish clearly aspires towards "the illusion of life" and other conventions of American cinematic practice in contrast to the manner in which it has chosen to oppose western customs of world building and environment design. The implementation of the 12 principles within *Khumba (2013)* can be seen in the snappy timing and holding of exaggerated poses that define Nigel the socially awkward zebra's movements (00:02:30 – 00:02:53), the anticipation which preludes Khumba's first steps (00:04:15 – 00:04:34) or the subtle staging that establishes a bond between Khumba and his mother, that is immediately reminiscent of *Bambi (1942) (00:05:10 – 00:05:19)*.

4.3.5 Sound

Much of the criticism that both *Adventures in Zambezia (2012)* and *Khumba(2013)* have received locally has been as a result of the adoption of Americanised voices for the animal cast. In his review of *Khumba (2013),* Kavish Chetty describes the espousal of Hollywood voice talent with the exception of secondary characters such as the springboks in the film as, "strangely alienating everything "local", whilst valorising "America" as the hidden centre of the work" (Chetty, 2013).

What Chetty is referring to is the fact that within *Khumba (2013)*, the central protagonists of the film, the zebras, are voiced by American actors while non-America accents, of which there are a few including Australian, Scottish and English accents, are reserved for peripheral characters and the antagonist Phango. Chetty is further frustrated by the individualisation of personalities that occurs within the Americanised herd of zebras, while the same is not true of the animals represented by local accents, stating that the gemsbok, who are audibly identifiable as African, and the springbok, who are Afrikaans are both subject to stereotype within the film. "The gemsbok speak in a slow, wizened register of the "noble savage", their monologues connect them with the rhythms of the earth; they are exoticised (even

as animals!) by their voice, which stands apart from the American heroes. The Afrikaner accent of the springbok works to turn that team of animals into a (sanctioned and familiar) bumbling, comic Afrikanerdom" (Chetty, 2013).

Chetty is correct in his assumption that the designation of specific accents to specific animals within *Khumba (2013)* occurred with an American audience in mind , however, this does not necessitate a colonial gaze or the inherent disregard of African identity within the film. When asked to respond to this sort of criticism Silverston replied by saying that, "A lot of focus or critique locally was made on the American voice cast, but the South African version of Khumba had an Afrikaans and isiZulu soundtrack too. *Zambezia*'s first voice track was all South African and it just did not work for international audiences – for multiple reasons – so we were more targeted in our approach on Khumba. We used local voices for the Gemsboks and Springboks for very specific reasons that suited these characters and then left the rest of the cast to be whatever accent suited the character. International celebrities help the film reach a wider audience in English-speaking territories, and in the rest of the world, animated films are dubbed anyway, because the target audience cannot necessarily read subtitles anyway" (Silverston).

Forrest too weighed in on the debate, asserting that it was international funding that had driven the voice debacle and confirming that *Adventures in Zambezia (2012)* was originally recorded with South African voice actors,however, ultimately it was re-recorded after the international distributors and sales agents felt that the film's marketability would be positively impacted by the additional credibility of having celebrity names attached to the project. Forrest continued to explain that there was pressure from both international and local funders to recoup their initial investments and so Triggerfish felt that they couldn't take risks, especially regarding the legibility of the dialogue and the impact of South African accents on the accessibility of the film for overseas audiences as only 4.5 % of the total revenue accrued over both movies has come from the African continent, with 95.5% originating from foreign territories. This overwhelming dependency on international markets, in particular, the United States and Europe (Forrest), resulted in the need to produce a soundtrack that would be immediately relatable to that market through Americanised voices. However, when releasing *Khumba (2013)* Triggerfish drew from their experience working on *Takalani Sesame* and adopted a similar multi-lingual approach to sound design, recording three primary versions: one for American and European release which featured Americanised voices, and two for local consumption, featuring re-recorded voice overs in Zulu and Afrikaans. The Zulu version was launched with the DVD release and marked the second time in history that an internationally distributed animated feature film was recorded in Zulu (the first time being *The Lion King (1994)* two decades prior), while the Afrikaans version was also released in local theatres marking a first for local cinemas.

It was important to the filmmakers that South African viewers, and the team of animators who worked on the film, would get to watch it in their own languages (Silverston). The adoption of multiple voice overs for the film served to ensure the preservation of local voices for locally inspired characters (in addition to an Americanised version suitable for the international market which still included South African voices in secondary roles, such as, Nhlanhla Mkhwanazi, Anele Matoti and Sindiwe Magona who voiced the gemsbok and Rob van Vuuren and Nik Rabinowitz who voiced the springboks) and the inclusion of only

locally produced music[72] and South African artists on the soundtrack, resulted in a multi-faceted approach to sound design that is distinctly South African.

3.4 A Distinctly South African CG Animation Aesthetic?

When first plotting this analysis I predicted that the end result would not support the presence of a distinctly South African aesthetic within contemporary South African CG animation, however, during the course of my research I have found this assumption to be incorrect. The CG animation produced at Triggerfish, while still developing and evolving over time, has gone a significant way towards constructing an identifiable aesthetic achieving this end not in all of the categories of assessment, but in most. It would be exceptionally naive to expect the aesthetic developed within Triggerfish's stop-motion animation to fully translate itself into their CG work as there are a number of inconsistent parameters. Firstly, the *Takalani Sesame (2000-2005)* stop-motion animation was created for a specifically South African audience and did not need to concern itself with global appeal. The lack of dialogue and reliance on mime and musicality in the *Takalani Sesame (2000-2005)* work was also very advantageous in terms of producing content for residents of a country with eleven official languages, but would not be appropriate for a ninety minute narrative-driven feature. Lastly, the short cutaway format employed for the stop-motion inserts produced for *Takalani Sesame (2000-2005)*, which focused on shape and colour as it was an educational children's show aimed at a pre-school demographic, provided the perfect environment for experimentation and trial and error in the evolution of style and abstraction. Without a substantial budget dedicated to pre-production, the same sort of experimentation simply is not feasible for feature film production. (*Khumba (2013)* was produced on approximately 10% of the budget of *Monsters University (2013)* which was released that same year)

This being said though, through its adoption of the locally inspired themes of reintegration and Ubuntu in its narrative, to its inventive solution of adopting a multi-lingual soundtrack, and the distinctive staging and composition of the highly detailed and immersive environments, *Khumba (2013)* goes a long way towards establishing an identifiable South African CG animation aesthetic.

[72] Music for the film included a score by Bruce Retief and original tracks by artists like Zolani Mahola Loyiso (who recorded "The Real Me" specifically for the movie).

Chapter 4:
Sunrise: A Case Study

Adopting the same structure as the previous chapter, this chapter will investigate both the computer-generated animation produced by Sunrise Productions and the stop-motion animation which provided a prelude to it. The aim is to determine if Sunrise, like Triggerfish, also effectively constructed a distinguishable stop-motion aesthetic and whether or not the studio was able to convert it into a culturally specific, computer-generated visual vocabulary. This chapter will present the circumstances within which both Sunrise's stop-motion and CG work was produced in order to provide a contextual framework for examining the selected case studies. This will be followed by a textual analysis of various works produced by the studio during both its stop-motion and CG periods. As in the previous chapter, consideration will be given to the treatment of narrative and structural design, three-dimensional forms, three-dimensional spaces, movement and sound. The work which will be critically assessed includes the stop-motion feature film The *Legend of the Sky Kingdom (2003)* and the computer-generated series *Munki and Trunk (2016)*.

4.1 Production Context

In 1991, a little over a decade after Zimbabwe was granted independence it was struggling economically due to sustained drought, a foreign exchange deficit as a result of the global recession and increased government spending in the sectors of health care and education. In response, the ruling Zanu-PF party implemented its Economic Structural Adjustment Program (EASP), which sought to assist economic growth. The resultant commercial restructuring involved the reduction of government expenditure by retrenching twenty-five percent of the civil service, and the privatisation of various state-owned entities, however, instead of driving economic growth has had been intended the ESAP policies lead to further deterioration of trade and industry as denationalisation was implemented too abruptly. In the late 1990s, Mugabe's government further exacerbated the situation with land reforms that aimed at reclaiming white-owned land for reallocation to Africans (Brett and Winter, 2013). This lead to a mass exodus of skilled agriculturalists from the country, and without proper guidance or training the new farm owners were unable to sustain crops leading to a sharp decrease in local food production. By the early 2000s, the country was in a state of hyperinflation and it was within this economic climate that Sunrise Productions was first established in 1998 and later produced Africa's first animated feature film *The Legend of the Sky Kingdom (2003)*.

In its original embodiment Sunrise Productions was a stop-motion studio, but in contrast to Jaqui Trowell who had experience working in the local advertising sector and who had received animation training, Phil

Cunningham, Sunrise's founder, and Roger Hawkins, the director of *The Legend of the Sky Kingdom (2003),* had received no training and had no background in film or marketing, resulting in a scenario where the studio was without the connections needed to secure advertising commissions. This, coupled with Cunningham and Hawkin's passion for storytelling, lead to the decision to pursue feature film development with little to no understanding of how to do so and a limited, self-funded budget. As such, stop-motion animation was selected as their medium of choice, because it provided a seemingly more accessible point of entry than any other kind of animation and it didn't facilitate the procurement of expensive computers or software which, given Zimbabwe's economy, would have been impossible (Cunningham).

In making *The Legend of the Sky Kingdom (2003),* Cunningham and his team made numerous mistakes as a result of their lack of experience: the character animation at times feels clunky and uncoordinated and the pacing of the narrative is jarring at points, however, it was precisely this lack of familiarity with their medium and its protocols that simultaneously freed Sunrise from the conventions commonly imposed by formal training allowing the studio to pioneer a new aesthetic of stop-motion now known as "junkmation". The term "junkmation" references the studios' construction of models and sets out of discarded items, which both reflected Zimbabwean street art (which like South African street art commonly includes sculpture and curios made from reclaimed metals such as wire, tin cans and bottle caps), and also reflected the filmmakers need to be innovative in stretching their finite budget. However, perhaps most interestingly, Sunrise's "junkmation" aesthetic facilitates the construction of compacted configurations and new forms comprised of previously neglected and abandoned objects, repurposed and granted a second life.

In his book *Allegories of Cinema: American Film in the Sixties* film scholar David James appraises several commonly marginalised forms of art making, including animation, stating that a medium "speaks not only of what it is, it speaks of what it is not; it speaks of its other" (as cited in Furniss, 12). What James is referring to is the manner in which alternative modes of production can only be properly understood when compared with more mainstream media, establishing an inherently oppositional relationship between the two. The found-object aesthetic of *The Legend of the Sky Kingdom (2003)* can be viewed in these terms. Often described as Avante-Garde, as evidenced in a review by *TimeOut Magazine* which refers to the film as a "Svankmajer-esque stop-frame animation" (2003), its stylistic decision making was influenced by budget and skills constraints as much as by local street art with Zimbabwe's struggling economy facilitating the need for Cunningham and Hawkins to implement various inventive cost-saving techniques, such as, the construction of a custom built camera rig out of an old bicycle wheel as they lacked the funds to buy one (Horrocks, 2003).

Sunrise's later works such as *Munki and Trunk (2016),* while adopting the more dominant medium of computer-generated animation, are still in many senses alternative through their choice of distribution model and a production pipeline and aesthetic that caters to it. Computer-generated animation produced over the last two decades within South Africa has primarily adhered to one of two dominant modes of production: animation produced in support of the local advertising sector as in the case of the CG portfolios of studios such as Luma, Bugbox and BlackGinger, or full scale feature film production as in the

case of Triggerfish Studios. Sunrise, on the other hand, has elected to pursue an episodic approach concentrating on developing short-form computer-generated animated series. In her appraisal of CG animated series Furniss concludes that animated television series are seldom created in 3D as a result of numerous factors such as production costs or the lack of subcontractor animation studios which are capable of 3D animation. She asserts that the "key to success in this emerging medium is 'choosing' the subject matter that lends itself to the medium well" (186 - 187). Sunrise has definitely structured their 3D series around this strategy, aiming their series output at below the line channels to great success, with *Jungle Beat (2005-present)* now averaging over 10 million views per month on YouTube. The series has established a viable production model for Sunrise in which below the line series work aimed at online distribution platforms is produced in order to generate the capital needed to fund the development of future feature film IP (Cunningham).

It is helpful here to compare the South African animation industry to that of other developing countries. Malaysia has become increasingly active in terms of digital creative media, however, due to a lack of government subsidies for the development of digital arts and a push towards securing international investment, the country is developing a reputation as a service destination. A primary objective for local governments within developing countries is often to attract business from major studios in first world countries, such as the United States, in an attempt to inject capital into the local industry. This is undeniably desirable as it brings in revenue for the industry, creates jobs and provides opportunities for skills development, however, smaller subsidiaries of larger studios are also susceptible to exploitation as, at any point, it is possible for the home office to close up shop if they feel that operational costs may be cheaper elsewhere disempowering the artists within their employment. This was evidenced by the establishment of a Rhythm and Hues service studio in Malaysia not long before the company's closure.

Government funding policies which promote any country as a service destination to foreign territories exist as a result of the limited economic resources available to that country's government, but in many ways, these policies need reform as they are currently short sighted and ignore their own long term implications. Producing work for overseas clients presents a fantastic opportunity for South African studios in the short term as it provides funding and the opportunity to expand skillsets, but in the long term it robs local studios of creative control and IP ownership which is crucial to the development of a recognisable, culturally specific aesthetic within locally produced animation. Creating content takes a massive investment both in terms of time and funds, just the ideation process and script development alone can take several years to complete, however, original IP presents a world of opportunities in terms of licensing and ancillary merchandising. In his article Appraising the role of Affirmation, Joseph Izang Azi posits that the repackaging of relevant aspects of Africa's unique cultural heritage as animated digital content could, in no small way, be vital in both preserving and promoting it internationally. Izang Azi goes on to state that Africa's total contribution to the current global creative economy via the exportation of cultural goods is currently under 1% annually, and that developing a sustainable and connected infrastructure for the creative content produced by African countries is key in both achieving international visibility for local animation and also for domestic development. He argues that the best way of doing this is via a restrategisation of current legislation, policy and infrastructure towards an ICT based distribution

solution which will allow African countries to rid themselves of the stigma of being “perpetual end users of Western technologies” (40).

Sunrise has made massive strides towards establishing the sort of digital distribution system that Azi suggests. In the interviews conducted with him, Cunningham asserted that Sunrise’s mission as a production house is to develop a number of series projects. Not, because this is where the passion of the studio lies, (its primary aim has always been feature film), but because this enables them to build the finances and skills needed to begin developing their own feature film IP. This tactic also allows Sunrise to maintain ownership of, and an authentic voice in the eventual production of the IP. “I don’t think you go straight to cinema and compete with Pixar so what we’ve been tryna do is build skill in storytelling and technicality to get us to a place where we can actually genuinely make a film that will compete” (Cunningham).

Through utilising the parameters outlined at the beginning of this chapter, I will now discuss the stop-motion work produced for *The Legend of the Sky Kingdom (2003)* that established Sunrise as a production studio.

4.2 An analysis of the early stop-motion animation produced by Sunrise Productions

4.2.1 Narrative and Structure

The Legend of the Sky Kingdom (2003) tells the story of Blockhead, Lucky and Squidge three orphans who, at the start of the film, find themselves trapped in the underground city forced to labour every day in the gold mines for the benefit of the evil emperor. However, after a seemingly chance encounter with Badzo and Italiano, two rebels also residing in the city, the children manage to escape the orphanage and its guards and reach the surface where, with the help of a mystical device named Telly, they are able to escape the guards’ hyenas and make it across an invisible bridge to the Baobab Plains and then to the Monkey Forest. The children’s journey now begins in earnest, they meet Gugulethu the guide bird, who helps them evade the hyenas once again by enlisting the assistance of the forest’s resident monkeys. The children journey on facing a ravenous crocodile, a treacherous chameleon, erratic skateboarding, electric dart wielding jackals and a bloodthirsty baboon along the way, however, they emerge intact under the continual care of Gugulethu, Telly, and Nkululeko, a sage mentor who imparts gifts from Ariel the son of the Sky King. Ultimately the journey leads to the forest of death where the children must finally face the evil emperor to earn their emancipation, but the ethereal Ariel once again comes to their aid and the children’s belief in him leads them to overcome the emperor and enter the Sky Kingdom.

Cunningham first wrote *The Legend of the Sky Kingdom (2003)* together with his wife Jacqui as a children’s story in the 1990s. During this decade Zimbabwe was undergoing a massive political transformation in addition to its economic crisis. 1987 saw the succession of Zimbabwe’s presidency with Canaan Banana being superseded by Robert Mugabe, whose governance can be characterised by problematic attempts at reforming the economic imbalance between Europeans and Africans residing in Zimbabwe, prolonged involvement in the Second Congo War from 1998 to 2002, charges of corruption

and the suppression of free speech. Growing instability within Zimbabwe in the latter half of the 1990s saw the emergence of independent newspapers critical of the government such as the *Daily News* which was established in 1999. This competition between the independent press and state owned media such as the Zimbabwe Broadcasting Corporation alongside civil unrest and criticism of government lead to the introduction of restrictive media policies[73] which sought to inhibit political commentary (Patel 56-57). In his paper, *The Fantastic subversion of censorship in the film The Legend of the Sky Kingdom* (2012), Urthur Rwafa, a Zimbabwean academic who focuses on the social implications of African film and theatre, considers the impact of the political climate within which the narrative was written on its eventual themes. Rwafa asserts that *The Legend of the Sky Kingdom (2003)* can be seen as challenging political censorship in Zimbabwe through utilising fantasy to achieve allegorical subversion of the political reality of the time. He states that fantasy functions through the projection of imagined realities which can provide alternative interpretations of our physical or political realities. In other words, the surreal world of *The Legend of the Sky Kingdom (2003)* constructs an alternative reality for Zimbabwe; in which the raging socio-political battles of the time have already been fought and peace and prosperity flourish (288). Rwafa's observations certainly reflect Cunningham's statement that his initial attraction to cinema was as a tool for promoting socio-political change. *The Legend of the Sky Kingdom (2003)* speaks allegorically of the censorship and oppression experienced within Zimbabwe during the 1990s.

In a review of the film, Brian Vacek commends the technical achievement of the animators, but identifies the religious theme of the narrative as problematic, asserting that, "The allegory, almost subtle at first, gets shoved down our throat" (Vacek, 2009). Vacek proceeds to identify several parallels between Christian religious texts and core story elements within *The Legend of the Sky Kingdom (2003),* comparing the underground city to the material world, the sky kingdom to heaven, Ariel to Jesus, Telly to the bible and the evil emperor to Lucifer. However, when asked about the biblical themes within both *The Legend of the Sky Kingdom (2003)* and what inspired this commonality Cunningham responded by saying that the films are not intended to be overtly Christian, they reflect the filmmakers' belief in Christianity, but were not intended to contribute to the western Christian media canon as he is more concerned with stories that reflect socio-political themes than religious doctrine (Cunningham).

While Vacek does highlight undeniable similarities between aspects of the film's narrative and Christian belief systems, simply attributing this to an evangelical agenda is dismissive of a number of cultural issues native to Southern Africa which seem equally likely to have influenced the film's characterisation and plot development. For example, the evil emperor adopts a spidery form that could just as likely be associated with Anansie, a trickster character popular in African folklore, and the serpent who blocks the children's path as they attempt to enter the Forest of Fear and Doubt aligns with the recurring theme of snakes representing deceitful or evil forces, who commonly oppose Chakijane (the mongoose) within Zulu narratives (Canonici 93). The Sky King and his son Ariel are certainly synonymous with the Christian deity and his son Jesus, however, they equally evoke various spiritual beliefs within African

---

[73] These policies included *the Access to Information and Protection of Privacy Act (AIPPA)*, *Criminal Law (Codification and Reform) Act (CODE) (PDF), Broadcasting Services Act (BSA) (PDF), Censorship and Entertainment Controls Act (CECA) , Official Secrets Act (OSA)* and the *Copyright and Neighbouring Rights Act*, among others.

epistemologies, wherein traditional self-knowledge is obtained through outward projection and the establishment of relationships with the sky, land and the community, rather than developing a preoccupation with the internal and one's own thoughts and feelings (Moll 3). The Sky Kingdom can as be viewed as representative of this sort of spiritual maturation as much as it can be seen to reflect Christian propaganda.

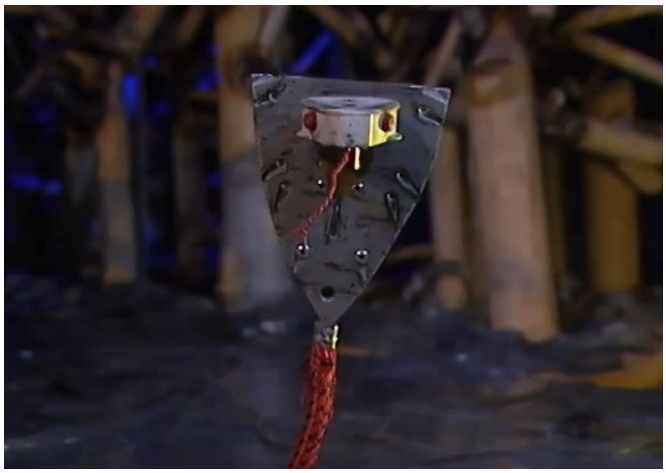


Fig. 55. Serpent

Still from Legend of the Sky Kingdom

2003

Sunrise Productions

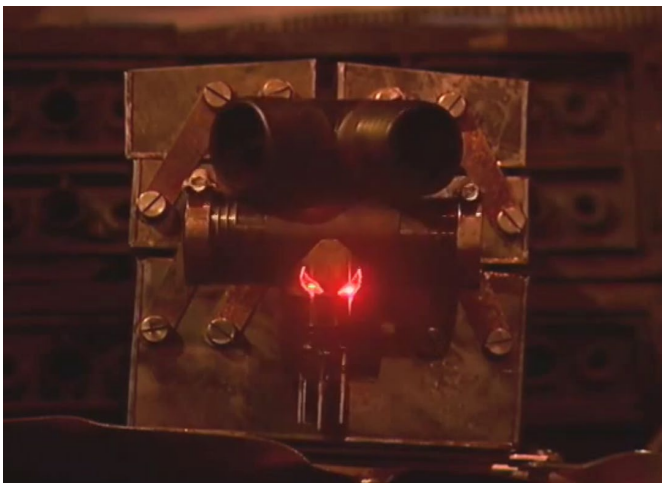


Fig. 56. The Evil Emperor

Still from Legend of the Sky Kingdom

2003

Sunrise Productions



Fig. 57. The Evil Emperor

Still from Legend of the Sky Kingdom

2003

Sunrise Productions

Vacek's dismissal of *The Legend of the Sky Kingdom (2003)* as western religious doctrine camouflaged by a veneer of African aesthetic and marketed as children's entertainment, reveals more about the author then it does about the film. Vacek's assertion is underpinned by his intimacy with western discourse, but lack of awareness of African ideology, consequently Vacek is quick to reach the conclusion that *The Legend of the Sky Kingdom (2003)* is an allegorical representation of a Christian value system, which may or may not be true, purely, because he does not consider any African alternatives as equally likely sources of inspiration. In much the same way that he ignores the potential of the narrative to represent African folklore, Vacek also disregards the widespread adoption of the Christian faith within Southern Africa or the manner in which various African social philosophies such as the concept of "Ubuntu" share Christian values. Ubuntu, n Nguni word originating from South Africa, speaks of humanity's interconnectedness and the capacity for societies to express compassion and mutual caring. It is a social ideology which presents a code of ethics and behavior central to many Nguni[74] cultures and builds on the central premise of "Umuntu Ngumuntu Ngabantu" which translates as "A person is a person because of others" (Nussbaum 2). It has existed for thousands of years across most of Sub-Saharan Africa and continues to be a core element of many traditional values within African cultures. Ubuntu prioritises the principles of sharing, charitableness and cooperation (Nussbaum 2) and as such is highly comparable to the Christian ethical system which takes as a foundation the ten commandments which include: respecting your elders, valuing human life, honouring marriage and goodwill for your neighbour. Vacek's reduction of *The Legend of the Sky Kingdom* (2003) to a story of Christian pilgrimage demonstrates a complete disregard for the complex intricacies that exist within Sub-Saharan theology in favour of an insular view of Africa.

In light of its relevance to the Zimbabwean socio-political environment of the time, its integration of political allegory rather than a reliance on the Disneyesque reinvention of fables, and its representation of humanitarian themes which are as equally likely to reflect African folklore or Nguni ideologies as they are Christian theology, the narrative of *The Legend of the Sky Kingdom (2003)* can be considered distinctly Zimbabwean.

[74] The term Nguni refers to a sub-group of the Bantu peoples who primarily inhabit Southern Africa. This includes the Xhosa, Zulu, Mpondo, Ndebele and Swati people.

4.2.2 Three Dimensional Forms

Sunrise's pioneering of the junkmation aesthetic, which drew from the street art sold at Zimbabwean markets and adopted the local crafts peoples' reworking of recycled metal and other materials as a stylistic influence, shares striking similarities with Triggerfish's adaptation of the beaded wire curios that frequent South African markets. In Haycock's analysis of Triggerfish's early work, he constructs a comparison between the street art aesthetic of the stop-motion animation that Triggerfish produced for *Takalani Sesame (2000-2005)* and the work of South African sculptor Willie Bester.[75] However, if one considers the various socio-economic factors, such as the establishment of the mining industry in South Africa and the subsequent displacement and urbanisation of rural populations that lead to a rise in popularity of the crafting of sculptural products from industrial debris (Manaka 9) then a more distinct comparison can be drawn between Bester's work and the junkmation style adopted by Sunrise in *The Legend of the Sky Kingdom (2003).* Bester, whose works such as *Trojan Horse* (1994) amalgamate vehicle wreckages, unwanted scrap and abandoned refuse into reclaimed forms, concerns himself with the reincarnation of abandoned inorganic objects. As such, clear similarities can be drawn between these designs, which reflect the contextual realities of life for many South Africans, and the aesthetic constructed by Cunningham and his team who literally re-animate that which has been discarded.

Another artist whose practice notably corresponds with Sunrise's stop-motion work is Norman Catherine. Catherine, whose work has repeatedly evolved both in terms of theme and medium during his career rose to prominence as a protest artist in South Africa in the 1980s. His works during this period were predominantly mixed media assemblages consisting of wood, bone, wire and other found objects exploring themes of oppression, homelessness and displacement (Jamal 6). Catherine's experience of South Africa during the 1980s as a white citizen opposed to the ruling National Party's discriminatory practices placed him in a position of alienation where he neither fully belonged to the struggle or could relate to his government. It was this sense of estrangement which lead Catherine to develop his distinctive visual language which both merges traditional African sculptural influences with iconography consisting of mass culture objects and media personalities characteristic of European Pop Art, and which is also reminiscent of the sense of the disaffection felt by many white Zimbabweans as a result of the Mugabe regime's controversial Indigenisation and Economic Empowerment Policies[76]. Both Catherine's satirical approach to the portrayal of socio-political events within his country of origin and his contemporary reinvention of traditional craft techniques in the production of his recycled forms parallel Sunrise's junkmation aesthetic.

Sunrise creates in *The Legend of the Sky Kingdom (2003)* a cast of characters which defy naturalism, opting instead for the utilisation of distinctly South African materials in the construction of puppets and

---

[75] Born in 1965, Bester is a South African sculptor and protest art. His works are assemblages of reclaimed metals, scrap and junk, such as, bits of bone, shoes, newspaper clippings and recycled plastics. His sculptures serve the purpose of social commentary and, during the 1980s and 1990s, were a call to action against the oppression and prejudice experienced during Apartheid.

[76] *The Indigenisation and Economic Empowerment Act* was first formally introduced in 1980 through the Lancaster House Agreement which sought to address the impact of colonisation on Zimbabwe and more evenly distribute the possession of arable land and ownership shares within the industrial sector.

sets that are immediately identifiable to Inhabitants of Southern Africa. The integration of local cultural signifiers and a found object aesthetic results in forms that are distinctly indigenous to the African continent, albeit a fantastical interpretation thereof.



Fig. 58. *Universal Soldier*

Willie Bester

2000



Fig. 59. Still from *Legend of the Sky Kingdom*

Sunrise Productions

2003

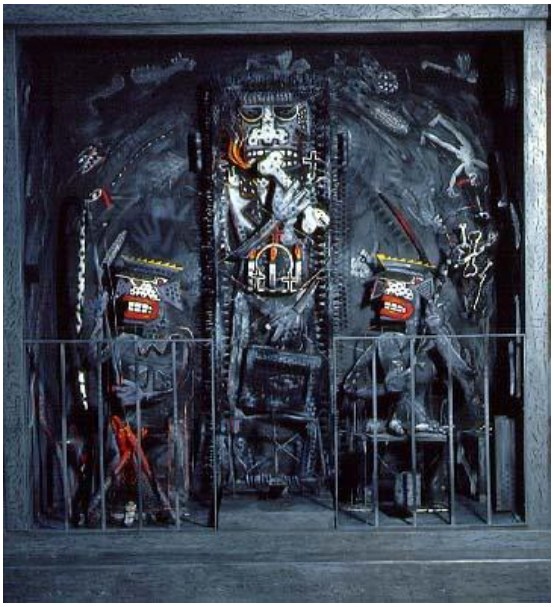


Fig. 60. *The Last Remains of Another Man*

Norman Catherine

1988

4.2.3 Three Dimensional Spaces

Animation's reliance on fantasy makes it an invaluable vehicle for the production of spaces that allow for the interpretation of difference and resistance. Animated characters are just as likely to undermine social conventions as they are to break the laws of physics, and the spaces which are constructed to home them regularly challenge ideologies through acting as sites of alternative history. Rwafu highlights the capacity of *The Legend of the Sky Kingdom* (2003) to challenge reality through fiction and to imagine a new Zimbabwe free of political persecution (Rwafu 288), but he stops short of considering the potential of theories concerning spatial construction as a tool for describing these fabricated alternative realities.

Just as in *Khumba (2013)* the environmental design within *The Legend of the Sky Kingdom (2003)* can be viewed as a cultural construct: providing a juncture from which to evaluate the complex relationship between environments and their representation. It is worth noting here that unlike *Khumba (2013)* which has been subject to post-colonial critique, *The Legend of the Sky Kingdom* (2003) has not been subjugated to such criticism. I believe that this is as a direct result of the utilisation of a junkmation aesthetic which not only legitimises the integration of the characters within the world of the narrative through their shared constructedness, but also links the allegorical landscape of the film with that of the real world through the usage of found objects which exempt the film from accusations of any colonial bias. From this standpoint, the positioning of power within the landscape from the centre to the peripheries may be interpreted not as being indicative of any internalised imperial perspectives, but instead as a deliberate challenge to these ideologies. By using street art as a medium the film, not only pays homage to a distinctly Southern African iconography, but also provides a critique of colonisation through the unapologetic display of the visible corrosion, abrasion and injury which has obviously been inflicted upon the discarded items and debris which constitute the film's environment. This deliberate showcasing of the fabrication of the environment of the film parallels the eventual erosion of colonial supremacy within Zimbabwe in the 1900s and its impact on the landscape and imbues the landscape with an inherent socio-political significance. Just as the residual fingerprints, tool marks and brush strokes that can be seen on various props within the Triggerfish produced *Takalani Sesame (2000-2005)* can be viewed as evidence of the creator permeating their work with their presence, the unassuming constructedness of the junkmation sets and puppets within *The Legend of the Sky Kingdom (2003)* can too.

As referred to in the previous chapter, Wittenberg asserts that discourse is undergoing a shift towards considerations of space as an optimal platform for evaluating identity theory, through analysis of the rationing of terrain between the public and the private, the social and the industrial, or those with agency and those without (22) all of which are highly relevant to the context of Southern Africa where countries like Zimbabwe and South Africa have been repeatedly ravaged by disputes over land ownership. *The legend of the Sky Kingdom (2003)* constructs a terrain which is in equal parts wondrous and hazardous, but is never insular or homogeneous. Instead, the film births a world that perpetually draws attention to its locality through a total disregard for any attempt to conceal its construction. The viewer's continual recognition of the spaces within the film as being comprised of tactile elements of the real world link the

fictitious environments to the context from which they originate: the various socio-political phenomena which constitute Zimbabwean history. In *The Practices of Everyday Life* Michel de Certeau asserts the idea that the city can be defined as a rational space which establishes a regimented and often punitive framework in line with Foucault's disciplinary society, in which rationality reigns and the city-subject is regulated by a series of formal institutions such as the church, school, or as in the case of the Underground City, the military (94).

Foucault frequently defined the modern era as being subject to spaces and the manner in which those spaces are linked to one another. In his essay *Of Other Spaces*, he identifies space as being pivotal to the subversion or resistance of power structures and describes the phenomenon of what he terms "heterotopia" (4), or spaces within which social conventions and expectations may be contravened. The fictional world created within *The Legend of the Sky Kingdom (2003)* where golf clubs are reinterpreted as baobabs, broken computers, vacuum cleaners and typewriters constitute a maze, and six hundred meters of wire cable and two hundred and twenty floor mops (Ball, 2003) embody "the Monkey Forest", is indicative of this sort of satirical spatial construction. The landscape of the film functions as a heterotopia as it exists in close relation to the real through the extensive use of found objects, but at the same time opposes reality and allows room for allegory, reinterpretation and critique, or as Foucault explains, it acts as both a construction and a constructor of knowledge (2).

This establishment of an alternative reality can be viewed in a similar light to the way in which *Khumba (2013)* Challenges picturesque interpretations of the Karoo. In the previous chapter, reference was made to the history of picturesque painting within South Africa and the alteration of the South African landscape in order to align with western conventions of art making in the work of artists such as Pierneef. *Khumba (2013)* was identified as anti-picturesque through its avoidance of dominant western pictorial conventions within the composition of its shots and *The Legend of the Sky Kingdom (2003)* is no exception. Cunningham and Hawkins establish anti-picturesque themes through their usage of deteriorating forms which are both representative of the collapse of colonialism and also distinctly at odds with the colonial trend of idealising African landscapes, while the interconnectedness of the various regions which make up the world of the film, and the manner in which we are reminded of the relationship between these geographies through the motif of the map, further positions the film as being definitively anti-pastoral (Wittenberg 101-103).

Space in the context of cinema may also be viewed not only in temporal terms, but also as referring to the language of the medium itself. If we consider space in architectural terms than the construction of sets; the editing of sequences and the traversals of characters through landscapes all become spatial signifiers of identity in their own right creating a very deliberate theatrical language which serves to mirror the constructedness of the world in which the characters exist and to perfectly represent the satirical nature of the narrative in the case of *The Legend of the Sky Kingdom (2003).* The recurring top-down shots and favouring of flat or limited space within the film's compositions serving as a perpetual reminder of the artistry and fabrication behind the fantasy realm represented on screen.



Fig. 61.

Legend of the Sky Kingdom:

Reclaimed Landscape

2003

Sunrise Productions

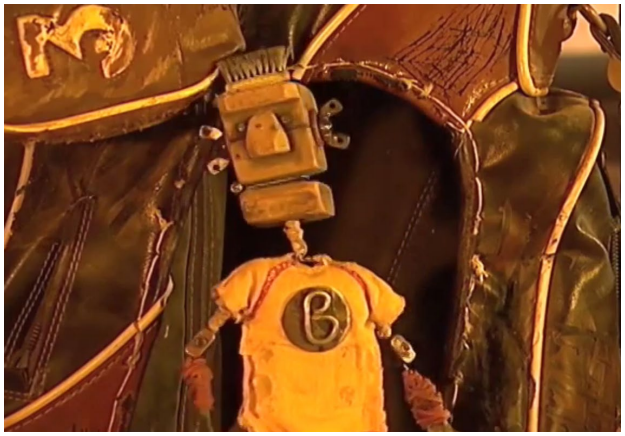


Fig. 62.

Legend of the Sky Kingdom:

Reclaimed Characters (Blockhead)

2003

Sunrise Productions



Fig. 63. *Legend of the Sky Kingdom:*

Reclaimed Landscape

2003

Sunrise Productions



Fig. 64. *Legend of the Sky Kingdom: Map*

2003

Sunrise Productions



Fig. 65 Flat Space

Legend of the Sky Kingdom

2003

Sunrise Productions



Fig.66 Flat Space

Legend of the Sky Kingdom

2003

Sunrise Productions

4.2.4 Movement

Just like the puppets that Trowell and her team constructed those that Sunrise fabricated for *The Legend of the Sky Kingdom* (2003) were all largely defined by the physical properties of the materials that constituted them. The fact that the majority of the puppets were made from solid, recycled materials again not only results in an instantly recognisable aesthetic synonymous with street art, but also in a highly stylistic and limited range of movement and restricted facial and body articulation. Consequently, the animation is dependent upon instantly recognisable gesture lacking in complex or subtle character animation and instead relies on the communication of attitude and intent through posture and timing. This limitation of articulation which impedes the communication of emotion is overcome though through the employing distinctly individuated voice overs. The filmmakers were also prudent in their decision rather than fighting against the limitations of the characters, to embrace their physical construction as a tool for subtext. Italiano's shorter legs and larger torso result in a higher frequency of up and down translation on his walk cycle which reflects his energetic and optimistic persona, while Lucky the cast pessimist, takes wider, slower, more reluctant strides with his long legs.

Cyril Lepot asserts that as a result of its inherent ability to resist physical limitation stop-motion animation is a unique art form which is subject to continuous transmutation and redefinition. Lepot asserts that stop-motion movement exists in stark contrast to other animated mediums, such as cel animation or CG animation, which are generated through the creation of different poses. Stop motion animation, on the other hand, is primarily concerned with the alteration of form and the development of character through this evolution of form. The transcendental nature of the medium is used to great effect within *The Legend of the Sky Kingdom (2003),* presenting characters with the opportunity for transformation and mutation, through the switching out, or adaptation of body parts as seen by the various uses of Badzo's and Italiano's propellers, Italiano's ability to open his tin can torso and use it to amplify and reverberate his voice, or the rapid spinning of Blockhead's wrist when wielding his magic sword. The movement styles of certain characters such as Gugulethu, who is subject to a combination of pixelation and clay animation techniques, further emphasize this potential for transmutation.

While the character performances within *The Legend of the Sky Kingdom (2003)* are undeniably crude, they are at the same time indicative of De Certeau's theory of spatial practice. De Certeau suggests that every story is a travel story and that the act of walking can be interpreted in the same way as the act of speaking. He refers to walking as "the pedestrian speech act", stating that it has multiple communicative functions including declaring ownership over land which is traversed (or challenging ownership through trespassing) and the implication of relationships between differing positions on a map through the traversal of distance (50). A recurring thread within the visual narrative of *The Legend of the Sky Kingdom (2003)* is our recognition of the character's progression through the world of the film by continually viewing their advancement on the map. While Vacek's reduction of the narrative of *The Legend of the Sky Kingdom* (2003) to a representation of Christian doctrine is problematic, his assessment of it as a story of pilgrimage has merit. It is not the evangelically inspired *Pilgrim's Progress* to which he compares it, however, for rather than representing a christly message or a colonially inspired

tour of Africa, the film presents a rite of passage denoting the characters belonging to the environment which they are navigating. The favouring of limited styles of movement and character individuation which is only inferred through metamorphosis and voice acting situates Sunrise's style of stop-motion performance in stark contrast to the type of caricatured, yet naturalistic movement that dominates American feature film animation.

4.2.5 Sound

Sound is, arguably, the Achilles heel for *The Legend of the Sky Kingdom (2003)*. While the soundtrack makes attempts at multilingualism and boasts an identifiably African range of instruments, the voice acting is problematic at best with some vocal performances demonstrating an identifiably African accent, but the majority representing a European hodgepodge. The fact that the voice overs are not Americanised means that *The Legend of the Sky Kingdom (2003),* ends up facing the same marketing issues that troubled *Adventures in Zambezia (2012)* upon its initial distribution and led to the re-recording of its voice overs in order to make the film more accessible to international audiences (Forrest). However, the inclusion of what Dennis Harvey, in a review for *Variety,* refers to as "routine ethnic-stereotype voice performances" including French monkeys, the Welsh Gugulethu, Scottish Nkululeko and aptly named Italiano, as well as the glaring absence of any African dialects means that while the film avoids Americanisation of its vocal performances it fails to achieve authenticity of characterisation or dialogue.

4.3 A Distinctly South African Stop-Motion Aesthetic?

As established in the discussion surrounding Sunrise's forms and spaces a clear parallel can be drawn between the rise in popularity in Southern Africa of the utilisation of urban debris and recycled forms as sculpting materials and the production design of *The Legend of the Sky Kingdom (2003).* Willie Bester draws similar inspiration from the township traditions of incorporating recycled materials into the production of tourist curios within his work. *Universal Soldier (2000) and Security Guard (2005)* bear striking resemblance to characters through their creation out of amalgamations of discarded metal. However, there is a further similarity between Sunrise's puppet and set design and Bester's sculpture: Socio-political commentary that aims to incite political reform and democratic rebirth.

Through the utilisation of distinctly local materials and the referencing of various local art making practices in the design and manufacture of their puppets and sets Cunningham and Hawkins aimed to create a visual vocabulary that is immediately relatable to Inhabitants of Southern Africa. In *The Legend of the Sky Kingdom (2003),* Sunrise creates a cast of characters that are distinct and culturally identifiable and who reside in a world that is immediately relatable to the context of Zimbabwe as a country undergoing political turmoil and aspiring towards liberation. While the sound design of the film undermines its authenticity and the movement is limited, the continued traversal of the central characters through the culturally and socially symbolic landscapes which constitute their reality and a narrative which

reflects the consciousness of a country, *The Legend of the Sky Kingdom (2003)* can unequivocally be considered culturally specific.

4.4 An analysis of the CG animation produced by Sunrise Productions

When considering commercially syndicated CG animation, Maureen Furniss asserts that abstract visuals are seldom found in mainstream animation today. "...Whether they be for the purpose of entertainment or instruction, most commercial works strive for a clarity of meaning that can be achieved only with realistic or iconic imagery" (66). This reliance on figurative forms and accepted naturalistic stylistic conventions results in mainstream animation's reliance on specific character types based on real world entities and a tendency towards conservative themes in an attempt to promote the general appeal and, as such, marketability of a studio's IP. "Although differentiation occurs from production to production, or series to series, there is a strong tendency to depict 'types' that conform to some popular formula of the past or are recognisable from some other context." (Furniss, 66).

In their stop-motion offering Sunrise adopted an aesthetic that was both unconventional and recognisably indigenous to sub-Saharan Africa and a narrative that was allegorical in nature, both hallmarks of independent animation production, yet, at the same time adhered to certain customs and practices that align with the American mainstream production model, namely, the establishment of a pipeline, international syndication and distribution of the film and its use as a tool for promotion of the studio. The following analysis of their CG series animation *Munki and Trunk (2016)* will discern whether or not they were able to implement the same blend of independent and commercial techniques to achieve similar success within the realm of digital animation.

4.4.1 Narrative and Structure

In his review of Southern African Literature by Michael Chapman, Daniel Kunene broaches the issue of the African epic. Kunene refers to the fact that western conventions of literature prove problematic when applied to African stories as the art of recording stories for print did not "evolve naturally" in Africa (135), with missionaries having introduced the Roman alphabet as an instrument for conversion to Christianity. Literature was introduced as part of a package with religious instruction and propaganda, resulting in writing that undermined existing belief systems, originated flat characters defined in terms of being wholly pure or unequivocally evil, and most lastingly resulted in the predilection of themes of Africa where it's scale and climate, alien to European settlers, became both the spectacle and the subject of magnification into the African epic (135-137). This problematic history of the representation of Africa and its peoples in literature has, in the realm of computer-generated animation produced in South Africa, resulted in a trend of avoiding the potentially problematic depiction of African peoples through the utilisation of anthropomorphic animals in their stead, and *Jungle Beat* and its spin-off show *Munki* and Trunk are no exception to this rule.

A lack of cultural specificity in favour of homogeneous representation within films depicting Africa is also the central premise of Mahoro Semege's research report *Cultural Specificity and Cinematic Narration,* which promotes a hypothesis similar to Chapman's asserting that the adoption of western narrative structures results in the breeding of generalised aesthetics. Semege asserts that a number of primary western theologies underly Euro-American narrative structures namely Puritanism, Pragmatism and Social Darwinism. He argues that these ideologies can be seen in Joseph Campbell's theory of the "monomyth" which is constructed on the basis of western discourse and concludes that the various stages of the hero's journey reflect this discourse. The call to adventure in which a catalysing incident pulls the protagonist toward the fantasy world, and in which there is no possibility for anyone, but the hero to heed the call, can be seen to reflect Puritanical theories surrounding mankind's elevation above other species via divine favour. While the overcoming of the guardian of the threshold is representative of social rites of passage and affirmation, such as confirmation ceremonies or the conferring of a medal for valour (39-43). Each of the stages of the hero's journey can be viewed as a product of various western ideologies.

Semege makes a compelling argument in support of the notion of a universal story being impossible, as narrative structure is based on our understanding of the world around us which is never neutral and always subject to cultural context. This presents challenges for South African studios endeavouring to make content which is authentic, but which needs to appeal to international audiences at the same time, as the revenue earned from locally produced content is currently overwhelmingly procured from Euro-American territories (Forrest). If we consider the narrative structure of *Munki and Trunk (2016)* in this light, its arrangement of self-contained, five-minute episodes in which a cast of animals individually serve as protagonists in various amusing blunders, provides an excellent platform for deviation from conventional or mainstream European story formulas, such as the monomyth, and allows for the divergent nature of African verbal narration, or the hyperbolic delivery of communal storytelling through the discordant and accelerating actions which constitute each comedic caper. If we evaluate *Munki and*

Trunk (2016) from a mimetic perspective, which envisions narration as the diegetic or formal presentation or structuring of a story, and accept narration to be the linguistic voice or telling of the story, then the decision to exclude dialogue also assists in resisting western conventions of storytelling by allowing actions and gestures to inform the audience mirroring South African cultural practices of communication through movement and dance.

.

4.4.2 Three-Dimensional Forms

When considering the development of CG forms within a post Apartheid context, Adam de Beer's writings on South African identities and their representation within animation provide an appropriate entry point. In his paper *Animating a South African Identity? The case of URBO: The Adventures of Pax Afrika (SABC 2006 - 2009)* which centres around the construction of identity and characterization within locally produced animation, De Beer argues that "as a wholly constructed medium animation allows ideology to influence the art form down to the smallest detail of its realisation" (48). Wells takes a similar stance promoting the transformative quality of animation as a tool for the metamorphosis of its subjects, which is particularly relevant in the case of CG animation with its unique ability to construct and transmute three-dimensional spaces from the ground up, as such, creating sites of unparalleled promise for cultural exploration. Both de Beer and Wells are primarily interested in the inconsistency of forms in experimental animation, which lead to "an instability of representational norms" (Wells 208), and which suggest animation as the ideal medium for filmmaking concerned with redefining South African identity and in turn aesthetic. In *The Legend of the Sky Kingdom (2003)* Cunningham and his team benefited from the transformative nature of their found object aesthetic immensely, and very wisely leveraged it in constructing relationships between not only the characters and their environment, but also the landscape of the film and that of Zimbabwean reality, however, in *Munki and Trunk (2016)* Sunrise instead opted to adopt a much more generic and Americanised style of production design. The metamorphosis, contextuality and abstraction which defined the "junkmation" aesthetic of the characters in *The Legend of the Sky Kingdom (2003),* and which was immediately distinguishable from dominant American production practices favouring more realistic modes of representations, is supplanted by a soft colour palette, diffuse lighting, subsurface shaders and rounded shape language that, while undeniably appealing, is entirely consistent with the dominant modes of aesthetic apparent in feature films produced by American studios like Blue Sky. This is evident below in the stills from *Munki and Trunk (2016)* and *Horton Hears a Who (2008).*



Fig. 67. *Horton Hears a Who*

Blue Sky

2008



Fig. 68. *Horton Hears a Who*

Blue Sky

2008



Fig. 69. *Hiccup Line*

Munki and Trunk

Sunrise Productions

2016



Fig. 70. *Hiccup Line*

Munki and Trunk

Sunrise Productions

2016

4.4.3 Three-Dimensional Spaces

South Africa is a country with a history that in many ways is defined spatially, with various interpretations of its topography as territory, landscape or geography each presenting their own dialect that speaks of ownership, the restriction of movement and issues of representation. This lineage of spatially constructed identities, whether temporal (the old vs the new, the cultural vs the industrial) or geographical (African vs European, public vs private) has resulted in a generation of animators who have proven themselves masterful in their treatment of environments.

When considering this inclination towards a focus on world building within South African feature film animation it becomes useful to compare the terrains constructed as representations of South African identity (as mentioned earlier in this chapter and in the Triggerfish case study) against the digital environments fabricated by Pixar, as Pixar's aesthetic and narrative conventions are typical of mainstream American production practices, and subsequently, a comparison will yield evidence in support of, or in opposition to, the establishment of an identifiably South African CG aesthetic. While animated feature films produced in Southern Africa, like *Khumba (2013)* or *The Legend of the Sky Kingdom (2003),* utilise environments as a means of spatially representing a myriad of complex socio-political relationships, Pixar films primarily employ landscapes as extensions or personifications of protagonists or antagonists. Resultantly, the utilisation of environments as mere backdrops for performance within *Munki and Trunki (2016)* breaks from the tradition of allegorical or anti-picturesque representation in Sunrise's earlier work instead adopting Pixar inspired conventions in its treatment of space.

In his appraisal of Pixar's films Eric Herheuth paints a picture of the studio as a cinematic embodiment of western consciousness which reflects various European ideologies through metaphor such as admiration for, and celebration of, the colonial explorer in *Up* (2009) or the association of analogue media in juxtaposition with new media acting as a signifier of isolation and loneliness in *Wall-e* (2008). Herhuth studies the ways that Pixar films reconfigure the real world and argues that they are primarily reflective of the artists who create them (4). Pixar, rather than being concerned with the spatial relationship between characters and the environments which they inhabit, instead embodies the society of the spectacle.[77] The evolution of animated feature film from traditional cel animation as the dominant mode of production to computer-generated forms has resulted in a shift in its manufacturing. The nature of production itself has changed, from the Fordist approach of mass producing animation for consumption by collective audiences in cinemas, to a production model defined by the individuated consumption of animation on

[77] The society of spectacle is a concept established in 1967 by Guy Debord, which envisions mass media as a means of commodity and which relegates consumers to the role of passive observers.

personal computers, tablets and cellphones. This move towards the viewing of films in private settings is reflected in the self-reflexive nature of Pixar animation (Gurevitch 1-3). An astounding number of Pixar films contain scenes of characters confronted by their own likeness on a screen. Consider Buzz Lightyear seeing himself commodified in a television commercial, Carl and Remy seeing their aspirations visualised via cinema and television screen respectively, or the transformational moment in which Mr Incredible sees himself villainised on the News. These self-reflexive instances, which present a sort of Lacanian mirror stage for Pixar protagonists in which they become cognizant of their own objectification, are indicative of the core difference between Pixar's treatment of spaces and South African feature film animation's treatment of spaces, however, *Munki and Trunk (2016)* does not do enough to establish a sense of locality within its set design.

4.4.4 Movement

Anthropomorphic animals have been present in animation since its invention with examples such as Oswald the Lucky Rabbit and Felix the Cat populating the Western media canon, as well as the bipedal rabbits in *Oira No Yaku* (1931) or magical bird creatures in *Kobu-tori* (1929) representing it in the East. It could be argued that the medium of animation lends itself to anthropomorphism with talking or otherwise personified animals commonplace within the realms of children's cinema. Animals have often appeared in place of humans in the context of literature and animation either living alongside humans, as in the case of *Khumba (2013),* or interacting with one another with the human traits of culture and religion within their own contextual reality as in case of *The Lion King* (1994). In addition to this, due to their preconceived qualities in the foundations of our myths and folklore, we often perceive specific animals as being synonymous with particular personality archetypes, for example, the hare as a trickster. In animation, these preconceived characteristics can be tempting to employ in the name of promoting immediacy of communication to the viewer, who is able to rapidly comprehend a character's persona without too much valuable screen time being dedicated to the exposition of attitudes and intentions.

In his dissertation *Animals as character: Anthropomorphism as personality in animation,* Tim Jardim proposes a scale upon which varying degrees of anthropomorphism may be measured allowing for the comparison and evaluation of differences between films such as *Watership Down* (1978) and *The Lion King* (1994), which represent different approaches to the conceptualisation and design of anthropomorphic animals. If we consider *Munki and Trunk (2016)* within this scale it would, like *Khumba (2013),* be more aligned with the Dreamworks or Blue Sky style anthropomorphism than with the visually distinctive limited movement aesthetic developed in Sunrise's stop-motion work. Leslie Bishko laments this sort of reliance on the Disney principles of animation in her consideration of kinesis in animation stating that, "Animated movement has the potential to communicate subtle layers of meaning, yet the terminology and tradition of the cartoon style can pose limitations when used without artistry. Cartoon style ... has become, to a certain extent, the 'default' movement style of animated film" (34). Through its reliance on conventional mainstream techniques of performance, *Munki and Trunk (2016)* misses an opportunity to instead establish distinctive modes of animated motion based on alternative systems of

movement analysis such as Labanotation, or to establish a style of movement that is divergent from existing Americanised traditions of animation in the same way that for example Japanese anime is. If we consider anime as a comparison, it does align with American modes of production adhering to either a full or limited style of movement, however, within the observance of American production techniques there has been considerable development of aesthetic and performance. Consider, for example, the regular utilisation of rhythms of motion fluctuating between stillness and extreme dynamism or the detailed, hard-edged art style facilitated by fewer frames.

In short there are a number of recognisably Japanese stylistic choices which have become recurring visual elements within the medium even resulting in the development of animation techniques that are divergent from American practices and have become synonymous with Japanese anime production,, such as, special effects layers like beads of sweat, rain, sparkles and lens flares implemented as overlays to create the illusion of animated performance over static poses such as the Gainax stance[78]. In South Africa, a country with eleven official languages gesture and body language are often critical. This is evidenced in small nuances, such as, the manner in which South Africans commonly point at items on a menu whilst ordering food in a restaurant as if subconsciously preempting the possibility of miscommunication and overcompensating with gesture. The continual complexities of conversing across so many language barriers have resulted in an increased reliance on body language within everyday communication in South Africa, which has yet to be explored and allowed to mature into the development of unique techniques within animation production as it has within anime.

Unlike anime which has stood in defiance of the American traditional style of animation and adopted its own filmic language for animated performance (although inspired in some ways by Disney), the CG feature film animation currently being produced by Sunrise Productions clearly aspires towards “the illusion of life” and other conventions of American cinematic practice.

[78] The Gainax Stance refers to an A-frame stance, often utilised in Gainax anime, which was first seen in Gunbuster (1988), Hideaki Anno’s directorial debut. This particular pose has become a staple of the medium of Japanese anime.

4.4.5 Sound

Like the stop-motion inserts which Triggerfish produced for *Takalani Sesame (2000-2005), Munki and Trunk (2016)* utilises mime as a means of overcoming the challenges which are presented both through international distribution and the creation of content for a multilingual local audience. Through its lack of dialogue *Munki and Trunk (2016)* presents sound design that is widely accessible and which alienates no one. This maximises the series' potential viewership, but at the same time the lack of any discernibly African accents or speech patterns within the audible exclamations which the characters emit, and the absence of distinguishably South African animal noises in the folley, renders the soundtrack void of any real form of cultural currency. In addition to this, the score is comprised of a number of instruments from all over the African continent, namely, marimbas, djembe drums and steel drums further serving to homogenise the sound design.

4.5 A Distinctly South African CG Animation Aesthetic?

Munki and Trunk (2016) demonstrates definitive technical advancement in terms of lighting, surfacing, effects and simulations in comparison to Sunrise's earlier CG series *Jungle Beat (2000-present),* for which it deserves to be commended. In addition to this It constructs a narrative which is reflective of the oral tradition of storytelling in South Africa through its implementation of hyperbolic pacing and divergent action sequences and boasts far more nuanced, fluid performances than those which succeeded it in earlier seasons of *Jungle Beat (2000-present),* establishing and communicating characterisation, emotion and intent. However, despite all of these refinements the series' overall treatment of movement, three-dimensional forms and spaces is not distinguishable from the sort of mainstream commercial animation which is widely produced and distributed in Europe or America, and the sound design does little to improve this situation as, despite the sporadic inclusion of African instruments, the voice tracks lack audibly African signifiers. Consequently, *Munki and Trunk (2016)* does not establish a recognisably South African animation aesthetic, however, it is important to take into account its production context. The series makes no claim towards Afrocentrism and the filmmakers have definitively declared that their aim is to establish a production model which allows for the mass distribution of easily marketable and digestible content to the widest audience possible, as a means of procuring the capital needed for future investment in authentically South African stories for animated feature film development.

5. Conclusion:

In many ways, the outcome of the analysis of the selected works by both Triggerfish and Sunrise in the previous chapters surprised me. My initial prediction was that there would not be enough evidence to support the development of a recognisable and culturally specific aesthetic within the local CG animation industry, however, this was wrong. In the case of both studios, the stop-motion case studies developed styles of movement that, while rudimentary and lacking in individuation or characterisation, did not adopt the Disney principles of animation. The limited movement enforced by the solid nature of many of the puppets, results in restricted performances which often rely on voice over, expressive key poses or soundtrack in order to effectively communicate, but the solidity and tangibility of the puppets lends an inherent contextuality to the productions which simultaneously positions them within the realm of fantasy, and links them to the realities of South Africa and Zimbabwe. The forms and spaces, through their incorporation of indigenous modes of art making, are instantly recognisable. *The Legend of the Sky Kingdom (2003)* integrates allegorical rites of passage which speak to ownership of the landscape resulting in a story that is undeniably Zimbabwean, while Triggerfish's work for *Takalani Sesame (2000-2005)*, through its narratives designed specifically to engage with South African children and the incorporation of social and cultural references with the intention of familiarising the content, establishes locality in its own right. Sound design prove to be challenging in both instances, but different strategies were employed. Triggerfish adopted a non-verbal approach and Sunrise opted for a variety of dialects, but an entirely local score. In terms of sound design, Sunrise misses the mark with the cast of foreign accents distracting from the locality of the film, while Triggerfish through its use of mime and musicality, constructs sound design that effectively communicates its South African origin. Overall, both films successfully establish recognisable cultural signifiers and, as such, clearly convey locality, however, *The Legend of the Sky Kingdom (2003)* does so particularly well, as a result of its unique "junkmation" aesthetic.

When considering their computer-generated work, both case studies struggle to determine a cultural presence in terms of character design and animation as a consequence of reliance on the Disney principles of animation which, while undeniably appealing, impose American stylistic conventions onto the performances and generic forms into the design of the characters. *Munki and Trunk (2016)* adopts a production design style that, while charming, does not reflect any indigenous design elements, instead, quite closely resembling *Horton Hears a Who (2008),* in terms of its colour palette, diffuse lighting, subsurface shading and shape language. *Khumba (2013)* on the other hand incorporates character designs that mimic those of *Madagascar (2005)*, it attempts elongation and condensation of its characters forms, but as a result of the film's adherence to naturalistic styles of movement this experimentation with shape language is implemented no further than the exaggeration of contour angles. However, when it comes to environment design *Khumba* (2013) very successfully establishes landscapes that speak to a South African history of segregation and issues of identity, reconciliation and retribution within shared

spaces. *Munki and Trunk (2016)* on the other hand, primarily uses environments as backdrops and does not own the space in the same way, failing to establish locality. If we consider narrative, both animations are successful at communicating their South African origins. *Munki and Trunk (2016)* excludes dialogue, and as such resists westernised convention of narration by allowing actions and gestures to inform the audience. *Khumba (2013)* in turn interprets the segregation and reintegration, which has characterised much of South Africa's history, within an animal population. In terms of sound design Sunrise adopts a non-verbal approach and, as such, avoids Americanisation of its voice over, however, as a result of a lack of identifiably South African dialects or foley, *Munki and Trunk* (2016) also lacks any authentically South African cultural signifiers within its soundtrack. *Khumba* (2013) on the other hand, creates a multi-faceted approach to sound design that is distinctly South African through its adoption of multiple voice overs in order to preserve local voices for local audiences.

Ultimately, *Munki and Trunk (2016)* does not incorporate enough local cultural signifiers in order to construct a recognisably South African CG aesthetic, however, it has developed a highly successful and sustainable business model, which has placed Sunrise in the position to begin pursuing feature film work and developing a visual language that speaks to, and of, local audiences in the way that *Legend of the Sky Kingdom (2003)* did so successfully. *Khumba (2013)*, through its narrative and sound design which aim to speak to both an international and a local audience, and its treatment of spaces which personify the ambiguity and conflict within many post-apartheid South African identities, has fabricated an aesthetic which is recognisably South African.

5.1 Observations and Recommendations

The struggles that many South African animation studios are currently facing while trying to develop distinctive local aesthetics and stylistic conventions, represent core issues at industry, government and educational levels. One of the primary challenges facing the industry right now is the lack of space for experimental or independent animation production which denies the South African industry untold opportunities for invention. One of the key sectors which should be facilitating a space for experimental expression is education, however, this is complicated by the fact that institutions specializing in animation education currently have to balance meeting the expectations of industry, while at the same time trying to redefine those needs. The commercial platforms that studios operate within are not often suitable for radically challenging innovation and, as such, it is vital that these sorts of interactions with the medium be encouraged and facilitated at an educational level. This requires the development and application of a strategy which holds local schools, production studios and government accountable for the creation of a curriculum which promotes process driven avenues of learning as well as outcomes based scenarios. Funding from either the local broadcaster or local animation festivals such as the Cape Town International Animation Festival (CTIAF) would provide a space for content which is aimed at a local audience and would better equip studios to actively promote and support the production of local IP.

Another hurdle along the road to establishing a distinctive sense of locality in South African animation is the medium's obsession with technological advancement. One would be hard put to find a field more subject to this phenomenon than 3D animation. Paradoxically, while CG animation is capable of creating fantastical creatures inhabiting surreal realms of the subconscious, able to lumber, leap or lurk in ways yet to be imagined, as hardware efficiency evolves so has a certain fixation on the development of dynamics simulations, surfacing and rendering capabilities and the pursuit of photo-realism. This is potentially as a result of the software oligopoly to which 3D animation, specifically, is subjected. This structure wherein a small number of massively influential developers control the release and distribution of software to the majority of studios all over the world, has resulted in a continuing barrage of updates, patches and new releases all designed to streamline and improve workflows, but which have in turn created an industry distracted by the advancements of the software that it utilizes often at the expense of evolving and revisiting aesthetic conventions.

The perpetual drive towards technological advancement that characterises 3D animation also presents another problem: the perception of issues of heritage and visual representation as being unrelated to the medium of animation. This is a deeply limiting mindset which inhibits the emergence of a culturally specific animation aesthetic within South Africa, as the blending of heritage, contemporary issues and innovative technology is quintessentially important in the journey of evolving the aesthetics of South African digital animation. Software is a vehicle for expression in animation and it should never become more important than form or content. Through remaining so focused on future developments animation risks losing sight of the importance of notions of "antiquity" (140), legacy and maturation, against which all other creative forms measure themselves as a means of quantifying value (Wells and Hardstaff 53 - 140)

5.2 Government Funding Policies and the South African Animation Industry

One of the most explicit influences on South African animation as a whole is the government legislature and policy to which it is subject. In "Reconceptualising Film Policies" the authors, Kowalik and Meers, define film policy as practices adopted by the government in order to encourage production, exhibition and distribution including tax incentives, film subsidies, festival funding or training programmes (247). Naturally, these sorts of endeavours play a massive role in the shaping of the local animation industry. When discussing the impact of government policies and legislation with regards to both funding and regulation, it is important to first outline the industrial landscape in order to provide context for further discussion. Within the scope of this paper, a cursory introduction will suffice and positions the South African animation industry as a vertical hierarchy with a body of overseers at its head including the Department of Arts and Culture, the Department of Communication, the Department of Trade and industry and the Department of Education. These government bureaus provide a regulatory environment and a number of foundations and organisations are created by these departments in order to facilitate support for local industries, such as the National Film and Video Foundation (NFVF). In the case of the local animation industry, its representative body is Animation South Africa (ASA), which was formally established in 2006 and is a non-profit organisation mandated to communicate with local government and

international organisations, such as, the Annecy Film Festival or the French Institute South Africa (Mabunda 2017). ASA serves as a communal spokesperson for various key role players within the local animation industry, namely, educational institutions, production companies and broadcasters. This network is visualised in the diagram that follows.

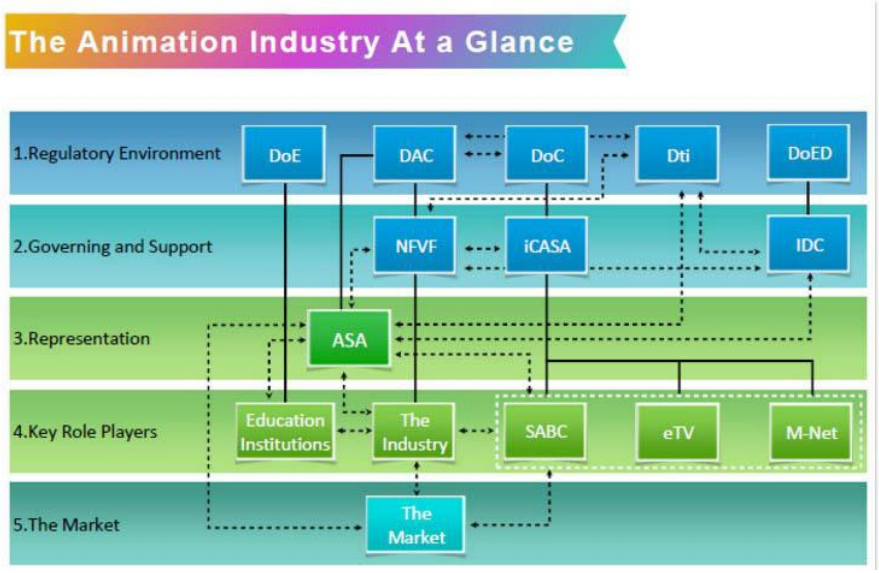


Fig. 71. *The Animation Industry at a glance, 2017.* Sizeka Mabunda. Strategy for the South African Animation Industry, ASA

After the 1994 democratic elections, the South African government established the Department of Arts and Culture. One of its primary directives was to investigate and facilitate the development of a contemporary and inclusive film industry aimed at providing a platform for dialogue, healing and for the advocacy of South Africa's diverse cultural heritage to both a domestic and an international audience. Film was viewed as a key arena for the promotion of cultural identity and political transformation and, as a result, a number of policies were established to aid in the interest of the arts (Kowalik and Meers 247-249).

In a sector studies research report commissioned by the South African Department of Labour into the creative sector in 2008, there was a recurring acknowledgement of the creative industries as a previously overlooked sector of industry, despite its recognition in Europe and Northern America as a significant contributor to the economy (Joffe and Newton 2007). However, regardless of this admission of neglect for the arts and an unambiguous proclamation within the *National Film Strategy,* which states that "Research conducted by the NFVF on the distribution and exhibition landscape in 2012 confirms that a complete rethink is needed regarding current distribution models" (13), there are recurring issues of contention regarding present policies.

Over the past decade under Jacob Zuma's presidency culture has been afforded very low priority and, as such, the animation industry faces funding allocations which are continuously meagre. These budgetary restrictions resulted in all film related government funding grants totaling a little under 29 million rand in 2017 of which only 2 million rand was allocated to animation (35-37). To put this last figure into perspective it amounts to less than 0.1% of the estimated 175 million dollar budget of Pixar's *Coco (2017)* (IMDB), which was released that same year. Despite this minimal investment, the South African Box Office Reports provide evidence that Action-Adventure and Animation have consistently been the highest grossing genres for the past three years, earning more than 200 million rand each per annum. In fact, of the top twenty highest earning films on the South African cinema circuit in 2013 (the same year that Triggerfish's *Khumba (2013)* was released), seven were entirely animated feature films including Illumination's *Despicable Me 2 (2013)* and Disney's *Frozen (2013)*, and a further ten were heavily reliant on computer-generated visual effects (Box Office Report 2013, 11) incorporating at least one entirely digitally generated character or environment.[79] However, despite this prevalence of animation in the box office drama is consistently the highest released and funded genre of film in South Africa.

Animated feature films require large budgets which means that the current limited government spend necessitates massive investment from private financiers. As such, regardless of animation's popularity, the considerable expenditure required for its production makes it an unlikely choice for local private investors. In addition to this, the expense of producing animated films makes the prospect of generating a profit highly unlikely if the sole market for distribution is the South African cinema circuit and DVD sales. In order to reach a wider distribution network, South Africa has signed co-production treaties with the United Kingdom, France, Australia, Ireland, Italy, Canada, Germany and New Zealand. The idea being that two or more international producers collaborating will be provided with the opportunity to access support and resources from two separate government funding structures as well as access to a more diverse array of skills and technology. The secondary objective, over and above increasing the budget range, is to foster an economic advantage through access to a wider audience, and the distribution of the film to both home countries. The treaties vary from territory to territory, but certain key criteria are consistent, for example, the minimum financial contribution of each country involved must be 20% of the film's total cost, and each country's creative and technical control, as well as rights to the project, are directly proportional to its financial contribution. Despite South Africa's signing of multiple co-production treaties, very few of the partnerships are actually active. According to the last published *Co-Production Report* which was released by the NFVF in 2014, the number of films completed or under development that year as a result of direct involvement in a co-production treaty was seven, with South Africa making an average contribution of 36.5% to the project budgets. As a result, within the year under review, South Africa was the major shareholder on only one of the projects, and only one of the screenplays developed was the property of a South African writer (3-10). The decline in active partnerships is most likely either as a result of the lack of funding available to South African productions, which results in a lack of interest

[79] The top grossing animated films were *Despicable Me 2, Frozen, Smurfs 2, The Croods, Monsters University, Epic* and *Wreck It Ralph,* and the additional films to top the list and rely heavily on CGI were *Iron Man 3, Thor: The Dark World, The Hobbit: The Desolation of Smaug, Man of Steel, Hunger Games: Catching Fire, The Wolverine, World War Z, Oz: The Great and Powerful, After Earth* and *the Great Gatsby (Box Office Report 2013, 11).*

by other countries looking to invest, or due to reluctance on the part of local creatives as it becomes impossible to include South African contributors as key role players on the basis of such a small capital contribution.

When neither domestic funding grants or co-production treaties prove fruitful, South African animators are forced to turn to international distribution as a financing solution. While it is absolutely vital for South African animation to gain global visibility and recognition, effort should be made in order to ensure that South Africa does not become a service destination for dominant territories such as the United States, and instead, that it becomes a recognised contributor of IP to the international animation canon. The aim here is not to vilify globalization, greater interconnectedness has advanced international trade and cultural exchange around the world and is key in establishing South African animation studios as recognised contributors to global cultural economics. However, it is key that globalization is seen as a tool for the celebration of African cultures. In an age where the removal of African artefacts of massive cultural and historical significance, by colonial powers such as France, Britain and Germany, and the presence of those very same artefacts in private collections and museums outside of Africa constitutes a heated debate (Neyari, 2018) it seems irresponsible to ignore the need to recognise the value of antiquity and heritage in all forms of art inclusive of animation, lest we repeat the same mistakes of previous generations in undervaluing Africa's contributions to the global art world.

In 2017 Animation South Africa compiled a number of suggestions for policy and strategy reform in a presentation to the Department of Arts and Culture. Emphasis was placed on South Africa's location within the international animation market as an emerging industry, and the impact of current legislature on its eventual positioning within that same market. A key focus within this presentation was the correlation between emerging industries with an international focus, and countries frequently considered as service destinations rather than global creative contributors. This is visualised in the diagram that follows.

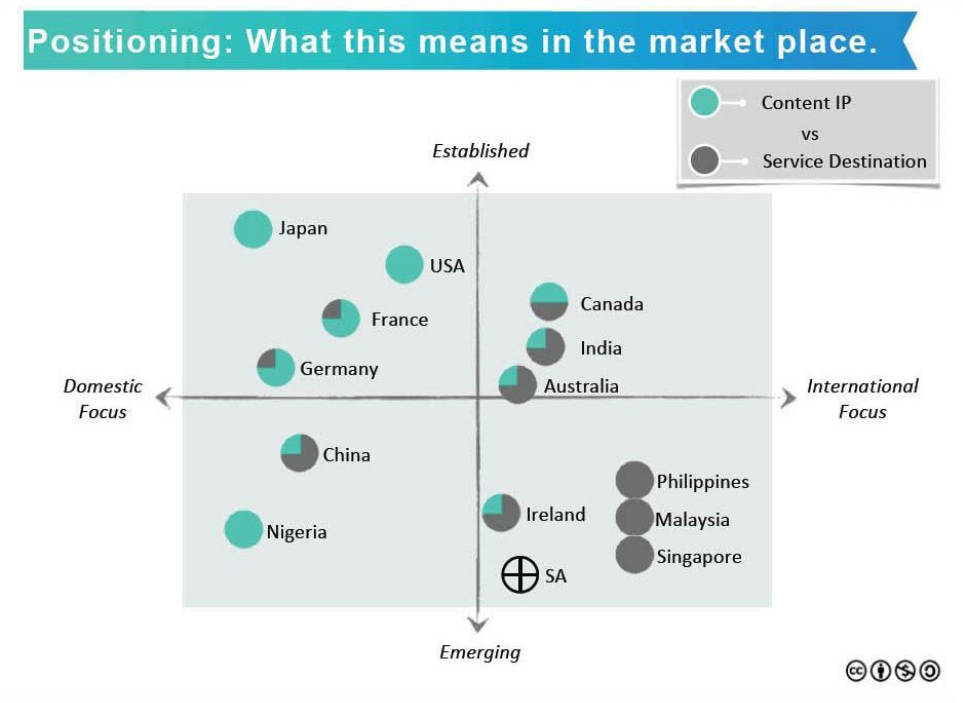


Fig. 72. *Positioning The Animation Industry, 2017.* Sizeka Mabunda. Strategy for the South African Animation Industry, ASA

The NFVF's focus on a tangible product for investment further exacerbates the difficulties of acquiring support during the concept creation phase. This results in many companies funding the ideation process themselves and consequently alloting less time than is required for iterative or exploratory design, resulting in an increased likelihood of generic pre-production. The development of original film concepts and scripts still generates considerable costs and is an essential component in determining the quality of a film and the subsequent revenue which it can generate. The current channelling of the bulk of available funding towards production, with little funding available for pre-production, has historically resulted in derivative animation aesthetics within South Africa as studios have attempted to emulate the Disney model as they simply did not have the budget required for innovation.

5.3 The Nollywood Model

In the short term, restructuring of the NFVF and its funding policies is unlikely and, as such, South African studios will have to consider alternative means of facilitating creative experimentation and ideation. One South African studio that has done so with great success is Sunrise, who adapted the "Nollywood" approach to live-action film making. The term "Nollywood" was first coined in an article for the *New York Times* by Matt Steinglass in 2002 and refers to the Lagos based Nigerian film industry which has become the third largest in the world. Despite its scale and status as one of the greatest influencers of global perceptions of Nigeria, the Nigerian film industry operates on relatively small reserves of capital resulting in its primary means of distribution and display being straight to DVD releases intended for home viewing (Haynes 131). The re-invention of this model for mobile and online distribution has resulted in the

generation of enough capital through licensing and merchandising, to facilitate Sunrise self-funding the majority of the development of its future feature film projects, and as such the studio is able to maintain the ownership rights.

5.4 Closing Thoughts

This research has revealed that both Sunrise and Triggerfish have made major contributions to the development of three-dimensional forms of animation in South Africa and that a distinctively South African CG animation aesthetic has begun to emerge as a result of these efforts. However, much innovation is still required in terms of education, distribution and policy reform. Further research into alternative distribution models, the impact of educational programs and curriculums, government legislature and recommendations for its reform would prove highly valuable.

Appendix A

South African CG Filmography

Mnet Open Time Ident (1989)
Directors: Hilton Treves and Don Searle
Dreamwave

CCVTV Channel Launch (1990)
Directors: Hilton Treves and Don Searle
Digital Direction

Carte Blanche Program Ident (1990)
Directors: Hilton Treves and Don Searle
Digital Direction

Supersport Logo Ident (1990)
Directors: Hilton Treves and Don Searle
Digital Direction

Nautilus TVC for Volkskas Bank (1991)
Director: Hilton Treves
Digital Direction

HourGlass TVC for Volkskas Bank (1992)
Director: Hilton Treves
Digital Direction

Sheer Driving Pleasure TVC for BMW (1993)
Director: Keith Rose
The House Next Door & Digital Direction

Roar with Flavour TVC for Simba (Exact Date Unknown)
Director: Glen Coppens
Digital Direction & The House Next Door

Tube Station Ident and Digital Character Creation (1996 - 2009)
Director: Llewelyn Roderick
Delapse

Always Take the Weather with You (2003)
Jungle Beat Pilot
Director: Brent Dawes
Sunrise Productions

Once Upon a Stable (2004)
Feature Film
Directors: Chris Schoultz
Character Matters & Sunrise Productions

Jungle Beat (2005-present)
Short Form Series
Director: Brent Dawes
Sunrise Productions
3 seasons totaling 39, 5 minute episodes

Magic Cellar (2006-2007)
Long Form Series
Director: Firdaus Kharas
Morula Pictures
2 seasons totaling 52, 11 minute episodes

Life at the Pond: The Rise and Fall of Tony the Frog (2007)
TV Short
Director: Wayne Thornley
Triggerfish

Me and Jessie D: Fish Fry (2008)
15 minute episode for TV Series
Director: Wayne Thornley
Triggerfish

Sopo (2008)
11 minute Awareness Campaign for Unicef
Director: Wayne Thornley
Triggerfish

The Lion of Judah (2011)
Feature Film
Directors: Deryck Broom and Roger Hawkins
Character Matters, Animated Family Films, Sunrise Productions

Jock the Hero Dog (2011)
Feature Film
Director: Duncan MacNeillie
Jock Animation

Adventures in Zambezia (2012)
Feature Film
Director: Wayne Thornley
Triggerfish Animation

Khumba (2013)

Feature Film
Director: Anthony Silverston
Triggerfish Animation

Stickman (2015)
TV Special
Directors: Jeroen Jaspaert and Daniel Snaddon
Magic Light Pictures and Triggerfish Animation

Jungle Beat: The Explorers (2015-present)
Short Form Series
Director: Sam Wilson
Sunrise Productions
2 Seasons totaling 26, 2 minute episodes

Plaything / The Magic of Jay (2015)
Short Film
Director: Sam Wilson
Sunrise Productions

Red Letter Day (2016)
Short Film
Director: Sam Wilson
Sunrise Productions

Munki and Trunk (2016-present)
Short Form Series
Director: Sam Wilson
Sunrise Productions
3 Seasons totaling 44, 7 minute episodes

Revolting Rhymes (2016)
TV Special
Directors: Jakob Schuh and Jan Lachauer
Magic Light Pictures and Triggerfish Animation

Snowbaby (2017)
Short Film
Director: Sam Wilson
Sunrise Productions

The Highway Rat (2017)
TV Special
Director: Jeroen Jaspaert
Magic Light Pictures and Triggerfish Animation

Zog (2018)
TV Special
Directors: Max Lang and Daniel Snaddon
Magic Light Pictures and Triggerfish Animation

Appendix B

Development Timeline

Date	Event
1988	Hilton Treves establishes Dreamwave, South Africa's first registered CG Animation
1989	Dreamwave is liquidated and reforms as Digital Direction, again founded by Treves
1989	The House Next Door is established by Shirley Sunter
1996	Delapse are commisioned by the SABC to create South Africa's first digital presenters
1999	Phil and Jacqui Cunningham establish Sunrise Productions in Zimbabwe
2003	Sunrise Productions releases Africa's first stop-motion animated feature film, *The Legend of the Sky Kingdom*
2003	Sunrise Productions begins testing the viability of CG animation as a potential medium
2005	Sunrise Productions relocates to Cape Town and switches its focus to CG animation
2005	Sunrise Productions begins work on South Africa's first CG animated series *Jungle Beat*
2005	Stuart Forrest and James Middleton buy Triggerfish Animation from Jacquie Trowell and Emma Kaye
2006	Morula Pictures produces *Magic Cellar,* South Africa's first CG animated series broadcast on the SABC (although much of the production is outsourced to India)
2007	Triggerfish begins work on CG commissions for American production companies
2011	*The Lion of Judah* is released as a co-production with American Production Company: Family Animation, and becomes the first CG feature film in which South African has had involvement
2011	*Jock the Hero Dog,* produced by Duncan MacNellie, becomes South Africa's first entirely locally produced CG feature film animation
2012	Triggerfish releases *Adventures in Zambezia*, South Africa's second entirely locally produced CG animated feature film
2013	Triggerfish releases *Khumba*, South Africa's first entirely locally produced CG animated feature film

Appendix C

An Interview with Stuart Forrest and Mike Buckland concerning the development of Triggerfish as a studio.

Can you tell me a little bit about how Triggerfish, in it's CG iteration, came to be?

I joined...Triggerfish started in 1996 with Kaye and Jaqcuie Trowell. So we weren't, we weren't involved in the beginning. I saw their work that they did for Sesame Street and approached them and, and built a relationship and eventually got employed as a junior animator and then in 2003 James, and myself, bought into the company. It was basically a pure stop-frame company at that point and the, they wanted to digitise it, at that point it was film, 35mm film and everything was very film based and then, with the, the idea that they needed to use SLRS and, and a whole full digital pipeline they brought in two new partners who were, we were, we both had a computer background, and then it was, it coincided with really the end of stop-frame in South Africa. Both XYZOO and Triggerfish found that we just couldn't do anymore stop-frame work. CG had come of age round about that time and the, the ad agencies, which was really our bread and butter, started to look at CG, cos they could have much more control, and when a client didn't like something they could ask for a change whereas in stop-frame if a client doesn't like it you have to start again and you double the budget every time, because there's no, you can't fix it. So it's, there was many other reasons, but the main thing was that, as a stop-frame studio we struggled to get the traditional animated commercial work which really sustained the studio and the original owners left and, left the company with James and myself and then we kind of closed it down, in, to all intents and purposes. We gave up our studio, we sold most of the equipment and then I started working over a few years with, Mike when he was working for another company, and, we started working on a, a pilot for, *Zambezia*, and then eventually when that fell apart with that other company, Triggerfish kind of bid on taking it over.

Which company was that if I may ask?

It was Character Matters, and then we, in 2007 Mike joined as head of CG production so we kind of rebooted the company with CG and at the same time Anthony joined as our creative head and, and at that stage we had four partners, and then we did Zambezia, oh so we actually did a few small ones, ja, we tried to crack back into the commercial market, but it was very difficult to get work, because we weren't really any good at it, yeah we weren't really networked and we didn't have the connections with agencies anymore so we mostly did service work for a couple of American studios, we did a whole 20 minuter and then yeah I think the first one was *Tony the Frog,* which was, which was 24 minutes, then we did, that was with ambient animation, and then we did *Me and Jessie D,* was that afterwards or was it *Sopo*? No *Me and Jessie D* was next, *Me and Jessie D* which was I think about 15 minutes and then we did *Sopo* which was 11 minutes, which was a UNICEF thing.

Could you spell that for me?

S-O-P-O, it was a hygiene awareness thing, and then we did a couple of commercials in between that, but not many, I think two, that was, there wasn't much ja.

Do you know what those were?

I know there was a Nigerian one for Tura soap, T-U-R-A soap, I can't find any record of it anywhere, I was looking for it the other day and I was like it's gone.

it's on our showreel, our old showreel.

oooh that's a good idea Mike.

Would it be possible to get copies of these early works?

I can get it for you, this is, I think, probably, our last *the collected works of Triggerfish*, if I can get it back, it's our last, it's terrible, it's almost embarrassing, but I suppose, it's not, it's for what it is it's fine, ja, that's the showreel that we, there'll be clips on there, and that'll be the *Sopo* one, *Me and Jessie D* and *The Pond,* so that's the.. ok cool, I think it's still a DVD format you'll need to rip it.

It's been horrifying how, just none of the stuff that people have produced is being archived or written about and you know, not to be morbid, but when everyone's gone, it's gone.

Yeah no, it's true, it's true, I've still got to dig up my early stuff that I did for posterity, it's just because it's really bad, but it's probably quite encouraging for kids to go gosh if he can do that and run Triggerfish, I can do anything.

We did some *Sesame Street* work as well.

Oh ja, ja that's true ja, which might be on the, we can get you that, we did a *Sesame Street* in CG which won't be on that, but we can get it to you, so it was, it was three or four minutes, ja, no it's on the server, what I can do is I can just, it's not that heavy I can, I'll zip that to you. I think I might be able to find the digital copy so that you don't have to rip it, but keep that anyway and see, they might be on our Youtube.

I think Ant just put them on Youtube.

We can get that to you. So, then we went into production on *Zambezia*, which we, we then, I mean it's a long story, but we found a sales agent, we went and raised the money, we took two years to get everything in place. We started production... we were 8 people when we started production and then we were 80 people within 6 months, so we had to ramp up really fast and it's amazing actually that we were still renovating after that the studio, laying networks, building a pipeline, training 80 junior people and yet somehow managed to deliver it, and then *Khumba* we started about a year later, so we did those two productions back to back and then after *Khumba* it was, uh, pretty grim. We didn't have anything lined up and I think we were just really exhausted to go into another one and we ended up having to retrench everybody, there were ten people at the end of *Khumba*, and then we had to let everyone go, and we kind of started looking more at the building the industry out again, I should also mention, because I think it's a key part of our history, is that, when I became partner, myself and James, became a part of Triggerfish we really had a year of no work. I mean that's why the other partners left it was devastating there was nothing and we were paying rent and paying everything and it was just, stopframe was, just

dead that year and, in that time when I was sitting at work waiting for the phone to ring I started Animation South Africa as a database to get to the animation industry, to kind of coordinate it and connect and at the time when I started it there was an estimated 110 people in the whole country who were interested in animation, but in just 6 months we had 2000 people in that database I think. It was the good old days when everybody just, was so hungry for it, they just signed up and it was free, and that became core I think when we came to *Zambezia* and we used it when we said to people, when they said how are you going to make this movie if we give you the money? And we said we've got 2000 people that we can choose the best 100 out of, and that was significant, because once we had the money I sent out an email and said who wants to work on our feature and I had 600 applications within a week, and we could choose the top people of that, so, so that was... and at the same time we started Animation Exchange in the Triggerfish offices so that we could get people talking and connecting, because in those days it was before Youtube, if you didn't have a VHS tape lying somewhere with animation on it, then you just couldn't get to see it, so people used to come and share their VHS tapes and dvds, so those were, those were early things and then eventually there were 30 people huddled around our TV and then I went to UCT and got them to give us a lecture theatre, and, at one point there was 150 people coming every month. Yeah those were the really heady days in terms of we were building something really exciting and there was a lot of excitement and then we did our features, and then we had this really dark period again where there was no work and then we started, basically planning, the story lab, where, we, we realised if we were going to be successful we needed lots of options.

We couldn't just have one script, develop one script, put it into production, develop another script, put it into production. We had to be developing 20 scripts, because you never really know what the market is going to respond to, and you never really know which one is ready first and we just... we needed to... at the same time we kind of, in the way the funding worked out, it turned out that we ended up not being able to fund any of our own scripts, the funding was specifically for external scripts, and it was very key that we went through that process, because we kind of shifted from a company that was created to make our own artistic vision come true, which is why we started it, we wanted, we had ideas for movies, to a company that became there to find other creatives and make their dreams come true and that has been fundamentally the best thing we could have ever done, because it opened up the whole continent of you know, hungry creatives. When the story lab was launched we had 1400 projects submitted to us and we could choose the top 8 that we then developed with Disney and got other partners and most of our future success over the next five years is all, just comes out of that process of connecting and, and we learnt a huge amount from Disney and from the different people we connected with. So that's the kind of broad, broad arc of... then we, we got...Magic Light came. Magic Light was someone we had approached in 2008 I think it was with *Zambezia*, we tried to get Michael Rose to be an executive producer on *Zambezia*, cos he, he did *Chicken Run,* which is one we all loved and we felt he'd be a great fit and he did *Wallace and Grommit a Close Shave*, which is my favourite *Wallace and Grommit*, and then he said he was too busy at that time, but we kept in touch, we kept bothering him and eventually he saw *Khumba* and then said would you quote on doing a part of *Stickman,* this project he was doing , where was he doing it?

At that point he was doing it in Germany still, he was probably still talking about doing it in Berlin, and then we said no we want to quote on doing all of it and then we submitted a quote and then they came down and there was like four people in the studio and they were like okay, and we said no, no we can do this, these people they've all just gone home, but they're waiting and then they said ja, do the whole thing and then since then we've done *Stickman, Highway Rat, Zog* now, we've got another one we're doing for next year which we haven't announced yet and so it'll be five, I think we would have done five years in a row for Christmas BBC, and that's been fantastic, because it comes with incredible prestige, it always wins prizes all over the world and it is one of the most sought after animation projects in the world, and I think the reason that we are so, have done so well with it, is we've really done it at a value for money that has been exceptional, you can't get it anywhere in the world and we're finding it hard to sustain, so I think, I'm pretty sure this will be our last one that we're doing for next year, because the budgets are not there for what we manage to deliver. So it's really a testament to the people though, who really over deliver at, at a very low budget. Another way to look at it, and I've said this before, to Nuno even, but if you look at the combined films being made in South Africa right now, including what Diprente is doing in Joburg, what Sunrise is doing, the kind of stuff that I guess, if you put all of that together and then you look at the DTI portion of that, and then if you include education in that mix, in terms of all the different schools that are teaching animation, I'd say that just less then half of the pot is in education, is actually parents putting money in, into the industry every year, to the tune of millions, more than the DTI by far, by probably double, which from the transformation point of view, which we'll probably get to, it's a real challenge, because those parents are white parents, the white parents pouring more money into this industry than government, and yet government are saying you need to correct the transformation problem and we're like well then you need to fund, if you want it to be representative, then you need to fund what the white parents are doing to make it 90 - 10 which is what they would like it to be, but even if it's 50 - 50 match it, there's, that's another interesting statistic.

It also has a massive impact on, and I mean in the same way that international funding impacts you guys and the films you make, it impacts our teaching, because of the fact that the rates are so expensive for the parents, because of the fact that it's a private school, they don't expect their children to be doing anything experimental, there's fear that if we're seen to be doing anything experimental the response will be why am I spending my money on this?

Mm, yeah, this is for a job.

Which has a massive impact on the kind of artists we produce, because we have this continual struggle not to produce technicians, so it impacts right from the ground up.

But it's a good thing to have technicians, because we've, we wouldn't be here if it wasn't for, I mean I've said this to Nuno, if it wasn't for the Animation School I think it would have been much harder for us and right now I think it's probably about 60 or 70% of our crew is from the Animation School.

Yes coming here feels a bit like being at home.

Yes you know literally everyone here, when we're done you should take a walk around and say hello. It's worked well the relationship.

It has. Sorry James' surname, I didn't get his surname?

Middleton.

Middleton, and then I just have one question, how have you found working with broadcasters who tend to want to get involved earlier and earlier in the process, how have you guys found that, was there any creative struggle?

From the BBC they have no input at all.

Ok, that's interesting.

They, they select very, very carefully so their selection process is very onerous, but Magic Light have now a very good reputation, so they, Magic light are the producers in London, and they, they did the *Gruffalo* with BBC, I think that was probably the hardest one for them, once they did it, it was a massive success, it was nominated for an Oscar and then was, since then, they've done one every year almost for the last ten years for the BBC. So the BBC are like if you're a trusted provider, you just have to pitch the concept, the commissioning editor will have a meeting and the commissioning editor will say we're ok with the concept, they know the compliance issues, the BBC won't do certain things, because they're a public broadcaster and apart from that they have nothing to say, for us we have more interaction with the original author, because they're all based on books, and the Dahl foundation, when we did the Roahl Dahl so, but apart from that, and even that is only once every three or four months there's a courtesy call with what do you think and they usually say it's great, maybe give a note, but the sort of projects we were working on they are very rare, they're T.V specials which are really different from like a series where you probably would get a broadcaster very involved. I don't know, I don't think broadcasters really have the capacity, I think... we're working with Disney on a series and there was a time they were very involved, the development department I guess, but once the development, once the scripts have been approved though I, I would be surprised if they keep engaging, because they can't really, they, they will just do quality control and as we deliver maybe they'll look at an animatic before we actually make it. I'm not sure, but the BBC have been completely hands off, no involvement whatsoever, but then when you sit, when you submit it to them they only chose the slot after they've seen it, so they watch it halfway through November and then on the first or second of December they announce what goes on Christmas Day and what goes on Boxing Day and everybody's vying for Christmas Day, because that's the biggest slot of the year, so if they don't like it, it gets boxing day so that's about it, or if they don't think it's Christmas appropriate.

And then in terms of, more from the technical side Mike, from when you guys were starting out with Zambezia to now, obviously there must have been a massive pipeline change, what did you guys start with and how has that progressed?

We started really, really small when I joined Triggerfish we were working with Lightwave, which just happened, that was the 3D package that I was familiar with and Messiah which was like a character animation system that sort of plugged quite closely into Lightwave, and we used that to produce the pilot for Zambesia too then, to do all the projects up until, actually up until *Zambezia* and the pilot for *Khumba* as well, all of these were done in Lightwave. So you know in terms of pipeline Lightwave wasn't really geared for a big studio pipeline so it was more about managing individual artists, and individual shots, so there, there wasn't nearly enough integration as maybe we have now for what it would actually take to have different teams working together on one project so we brought in a specialist called Sandy to help us work out how we could go about setting up a pipeline built around having different teams specialising in specific areas and moving that information from one team to another, to another. So that was the first time we really put anything like that together.

And how did you come into contact with Sandy?

We just knew him through the industry, I mean, I think we, actually I never meant Sandy until we approached him to hire him. James knew him, ah yes James had a connection with him, but he'd been working at BlackGinger for a long time and the Refinery before that so he was like on of the really experienced people in industry.

When did you guys meet?

It must have been 2009 hey, end of 2009, yes, ja. So with him sort of on the technical side, and then Vanessa sort of putting together a lot of the studio infrastructure and James handling the hardware side of things, and I was sort of working on the pipeline, or sort of, ja how the different teams should work, the people side of things, we put *Zambezia* together. Then we were very lucky, because Khumba came straight after that and, and all the mistakes we made on Zambesia, and there were lots, because we, we hadn't done this stuff before, we were able to change very quickly and reimplement that onto *Khumba*, so *Khumba* went a lot better and we were able to improve how every team was working together and how they were ja, working with each other as well, and then once Magic Light came onto the scene we had really kind of honed our pipeline, but I think we still had a long way to go in terms of understanding really high level quality, like with the... we were really proud of *Zambezia* and *Khumba*, and I think they're good, but the benefit of the Magic Light projects was that they exposed us to directors who had been working internationally and that really opened our eyes as to how much more we could put into these things and increase the quality, the sort of production value, so those five, four projects really leveled up the crew skills massively, just because of the sort of expectation of what we were looking for in terms of quality and performance and so on was a lot higher, so it was really, really great for us to be exposed to that, and I think as a result of that, and with every project, with every new director they have a different way of working or they need to see information a different way, or they need a different structure to support them. So every new project we've kind of changed the way we do things to sort of accomodate how they work and how best to get the information from them, or to them, and that's obviously had an affect on

right you know, how we structure our teams or how many people we have in certain teams or how the leadership of those teams work as well as how, you know how far along do we take something, at which stage do we show them stuff, so that affects our pipeline, to, to quite a degree. Then so we did, we did *Stickman* in Softimage and then when *Revolting Rhymes* came along, it had already been started by a studio in Germany and they were working in Maya and we needed to collaborate with them, so we changed to Maya and we took on Shotgun as a sort of management system, before that we actually had a system that Stuart had sort of written for us for managing our studio, which was really amazing, actually at the time we were really proud of it, it was a sort of task management system that just helped us keep track.

What was it called?

It was called Nigel, I think everyone else was working off of spreadsheets at the time.

And what was Vanessa's surname?

Sinden, she's been our producer, one of our main producers for all, all the movies. Ja, she's a core part of the studio. I probably wouldn't be here without her, you should have a whole paragraph on her. So we, there was already a team in Berlin working on *Revolting Rhymes* and we were coming onto the project to help finish it off, so we adopted Maya at that point, brought Shotgun in to sort of manage the system, because it's cloud-based it would work well with them, and with us. Big change to our pipeline there, aside from introducing Maya, was we were collaborating with another studio so we had to figure out a lot of data, getting data back and forth between the teams, so we had never worked with another studio before so it was quite difficult at first, just meshing with them, and figuring out how they do things and how, how they like to work, and how they deliver stuff, and naming conventions and all of those kinds of things. Where the expectations were in terms of what they would do versus what we would do. It was a really tough project, but it paid off really well in the end, because it looked amazing and it's done really well, internationally it's done well winning awards and stuff. Since then, I think on *Highway Rat* we really pushed the quality again dramatically, our production value was really, radically higher on that one..on *Zog,* we've been more intentional about, … ,because on *Highway Rat* the focus almost became primarily on the director and the director's vision, it almost became dependant on the director, and specifically what he needed and wanted, on *Zog* and the current, the next production, we've been more trying to get back to spreading that responsibility of decision making and empowerment back to the team so that they have more input and say on what they are able to deliver, what they think that they can do so it makes it easier for them to sort of plan what they think they are capable of achieving, and it means they have a bit more ownership and they feel a bit more empowered in their work, rather than just really having to meet one person's very specific viewpoint and really just executing that. I think that on *Zog* it's been great that they've been able to actually suggest ideas and have input on the story, or input on the art direction, or input on all of the aspects of filmmaking. It's been really good for them and that's something we're doing, you know we want to keep doing that. Especially now as our teams are you know, they're maturing,

there's a level of experience now that goes back 5 or 6 productions, and our leads really know a lot and they have a lot to offer, so giving them opportunity to have more say in how we do things here has been really, really valuable and they enjoy it and they bring a lot to it, so it's really good.

I don't want to keep you guys much longer, the last thing I really wanted to ask you was, the last two questions are how has working with international funding affected you creatively, I mean down to just things like Americanised voices and African characters, that would be my first question?

It's not the international funding that's driven the voice kind of debate, which is, was, which is a debate and on *Zambezia* we actually initially recorded the whole movie in sort of South African voices, but it's more the international sales that are impacted. Even the local funders want their money back so they don't want to take a chance. So we just don't have voice actors in South Africa for animation, and I think we initially underestimated the skills that you need to actually pull it off. We thought we could use professional actors, stage actors and TV actors and film actors, but they're actually two different sets of people, so we struggled, we found a few good ones, but for the most part trying to be legible and trying to act at the same time and trying to make it so that the perhaps international audience will understand you, it all just became too much and became... it was underwhelming, and then on *Zambezia,* after we'd recorded the whole thing and spent a fortune, our sales agent said this is going to be very hard to sell to a Polish person who can barely understand English. The Polish distributors are now listening to this strange accent and it kind of makes the whole movie feel foreign and weird and whatever, so it was really just a sales thing. Then we actually just did a call in Hollywood, because the sales agent said let's just try and if you... if it isn't better than we'll stick to what you have, and we did a call and within a day we had 1200 auditions in our inbox, and we put it together with you know, we gave them the script and we had the picture with a storyboard, and we put it together and we were like wow it's next level by far, because these are professional artists. They're also cheaper than South Africans, because they work in the morning and in the afternoon every day of the week so they, you book them for a session of like four hours it's either a morning or an afternoon, and try schedule them in, but in South Africa getting actors and actresses who sometimes haven't worked for two months so they've got to earn two months salary in that one session means they're much more expensive here, whereas, because we just don't have critical mass, they also didn't understand that, the nuance of voice acting, because you haven't got your eyes or anything else to give cues to the audience so we, we redid it all and also we had to put celebrities on, because why wouldn't you, because they add so much value to the whole packaging. Even in Russia and countries that divert it still, the celebrities carry a lot of weight. To the distributor, they go ok this is obviously a legitimate movie, you can't get celebrities if it's total rubbish, most of the time. So, 4, 4.5 % of our income over both movies has come from the African continent, 95% comes from foreign territories so it would be very parochial to think that now we should use South African accents for the South African market when actually the world market is essential in breaking even.

Do you know what the division is between east and west in terms of those demographics?

I would say in terms of the financial what we get?

And audience.

The audience is probably higher in the east, but the money is way higher in the west. So, for instance, we sold a million cinema tickets in China, and we got $30, 000 out of them, we sold I think it was 4 million in Russia, I can't remember what it was, but basically we got 6 million dollars at the box office in Russia, and we got $135,000 return dollar return on that, whereas in America we didn't even release in the cinemas and we've gotten about 2 million from them. So it's just completely that European companies, uh countries, pay and it's all very well worked out and very, there's a system...whereas the Russia, South Korea, China, a lot of the countries that you kind of... that are less western, they're, we just have never seen money out of them, they owe us millions, but we'll never see it. So, that's why you can't ignore, even though by far the biggest audience is probably India, I mean India we don't even think we got paid, but it's been released in Hindi, I think we made also like $20,000 or something, yet probably hundreds of millions of people have seen it, because it's on Youtube all the time, but you know they don't pay, so it's definitely the primary territories pay the money and that's France, Italy, North America, the U.K, Australlia, there's six and Japan is one. So that's primary, the seven primary territories, it's seven, pay 80% of the income and the rest of the world pay 20%.

Have you had any involvement with Japan?

Yes we, we've released straight to dvd in Japan, for both, for both movies, but they're not, that's not a great market, they're very, they love animation, but they love their own animation and they don't... they're not really embracing, I mean I guess if we, you know you could break through, but we didn't break through in Japan.

Ok, the reason I ask is, I'm looking at them as a potential parallel, for South Africa just in terms of the way they deal with the idea of appropriation.

It's hard to compare us with Japan, because the sheer economics. Japan's the third or fourth wealthiest country in the world, it's mind blowingly different the economics. Miyazaki's movies can make 200 million dollars in Japan alone, ours can't even make one, one or two million dollars on the whole continent, so it's like it's absolutely impossible for us to look at Africa as a market, we have to look at the rest of the world as 95% of our revenue, whereas 95% of Miyazaki's revenue comes from Japan and 5% the rest of the world.

You end up with the Nollywood model, which is quite different.

Ja, which is, which is quite different and obviously it's all volume that model.

And then the last question, is how have you guys experienced a shift in your mentality towards filmmaking from stop-motion to CG, what do you think has been lost, what do you think has been gained?

Stop motion is, is more fun, but it's a lot more limited and I think it, it isn't, I mean I don't even, you know, I watched *Isle of Dogs,* which I absolutely loved, but there's just, if you're not Wes Anderson then I don't think you, or Aardman, I don't think, maybe Laika's movies, but even Laika struggles with their movies, because there's basically three studios that are doing that, or two studios and a Wes Anderson, that are still doing stop motion in any significant way. The audience is used to a lot more dynamism with the camera, the camera work in CG is just next level in terms of the cost of getting a motion control rig and doing multiple passes in stop motion, the cost per day on a motion controlled rig is astronomical and you just can't get those, those sweeping camera movements which are free, you know, for us the lighting is free, all that stuff. That said, we used to do 3 seconds a day in stop-motion animation, you know with one person, and now we have 5 people to do 1.8 seconds a day, so you know with all the different things... you have to render it, and light it and all this sort of stuff, and we used to be able to do everything. So it's kind of weird that it's still easier to do stop-motion. We still encourage, you know we have a little thing where we're encouraging kids to play with stop motion, because it's a great way of learning storytelling, but, ja I don't see us going back, those days are... another practical difficulty is you just need huge spaces, stages, lights, equipment, and you need to be able to store your stuff and it rots and it gets wet and all that stuff makes it very complex, whereas CG, you just back it up onto a tape, if you ever need it again you get it back, you start right where you left off, but it's in perfect condition, so for posterity it's easier too, to use and to fix things, I think that's the main thing.

Did you find when you were working in stop-motion that it was easier to make things that were distinctly local, because you were using found material versus trying to design production design in digital?

I think ja, I think it was...the one brief we had from our biggest client in the stop-motion days was, was *Sesame Street,* and one brief was find local, make it local. So we got plastic chickens and beaded dolls and wire people, wireframe people and we created a whole world with that stuff, and different worlds with it, and it was very popular overseas, and just a big part of our learning is that, that actually then they started commissioning it for the U.S domestic *Sesame Street* and then the international *Sesame Street.* So we ended up doing about 7 or 8 seasons for them, and different markets when we had started as being specifically local, so I think it was nice way to play, but is it easier, I think it's the brief, so even if we go to our production designers and say we want it to be local they'll just take google pictures and create it the same way, so I think it's all about what are you trying to achieve, and the fact that stop-motion has a lower barrier to entry probably makes it a nice starting place for anybody wanting to get into animation. They can just get an app on their phone, get a light and a table and they're done, they can carry on and just start making lego and animation and whatever they want to do.

And is that something that you guys are planning now for Seal Team and for your own IP now? Sort of going back to that authenticity or are you wanting to see how far you can push the aesthetic you've already developed or what is the, the plan?

I, I think every show will have its own aesthetic. I think we're quite strong on the director must decide ,wherever we've gone wrong in the past it's been where we've gotten in front of the director, or between the director and the agent and started to second guess the director and sayi wait the market wants this and now we're, we're much more fiercely protecting the director's vision. First we have to really trust that vision and hold it to a high standard and continue to keep it there, but we're less prescriptive now. Greig's directing *Seal Team,* it was pitched as an action-adventure, he's moving it more towards comedy, it's great, that's what he's naturally finding, is what it's gonna be. It's definitely a different film, but for us to say no it needs to be this, is gonna just confuse the thing, so, and Greig chooses the production designer, the production designer chooses the team of, character artists and environment artists and, you know, whatever they come up with is how it is, and that will keep us distinct, hopefully, and there's some works that we'll have in the future, that are very, very African... deeply African, and those will have pure African design aesthetics like wakanda all the way, but there's others that we're pitching, like *Seal Team,* isn't really that African it's more of an international genre film, the African influence is subtle, but it's not front and center.

It was subtle in Belly Flop, yet still distinct I thought, you did a fantastic job on Belly Flop.

Ja, ja they did and I think those, those kinds of things just come out of wanting to be fresh and naturally moving towards what's around us and what we're familiar with, but it's very creator driven now, it's not, to some degree it's market-driven, because we greenlight the shows that the market wants, and right now the market wants Africa, so that's what we're finding, we are moving more towards that direction, but for instance *Seal Team,* it isn't an African film it's an international film and we're also not going to be dictated to by geography we're an international company and we make films for the international market and they must work in China, they must work in Brazil, they must work in the U.S and they, they're primarily products for an audience.

I Just want to ask a couple of follow up questions just to tie things together and then, I will leave you, thank you so much, how did you first come into contact with Michael Rose?

So I think Anthony won a competition with the NFVF and the British Film Council, his script editor was from London, she knew Michael, I think that was the story, I can hardly remember it was so long ago, it was ten years ago, and she, she put us in touch and she said you should speak to him he's left Aardman and he's...at that stage he was just starting, this was before *the Gruffalo* even, and so we got in touch... it was through references.

Ok, and then how did you first get Disney involved in the story lab? What contact did you make? How did that come about?

Someone asked me this the other day and I can't remember, Disney approached us after we had done *Khumba* and we began making some games with them, so we had been working with Disney for a while, then I made contact with Disney Africa, with the local Johannesburg office and I suspect Christine when we asked her, wasn't, wasn't Nickelodeon also involved? We, I, I sort of was courting them, but eventually we moved, we decided on Disney. That was, that was what it was, we went to Nickelodeon Johannesburg and said we want to do the story lab thing, we're looking for a partner and DSTV had come on board, and the DTI had come on board and Nickelodeon said we're in, and I'd originally gone to Disney and they'd said no and then I fed back to them and said ok well then don't worry about it we're going with Nickelodeon, and they said no, no we want to do it now, but we don't want anything, we don't want Nickelodeon to be part of it, so we're like well Disney's a better brand for us, so we, that's what happened through Disney Africa, I think I approached Disney Africa and Nickelodeon Africa together, and the short story is, they put us in contact with their Burbank office, the global policy division, which does these kinds of softer initiatives, and we, we built a relationship.

And then my last two questions are what, what is James' role in the company and what was his background and the same with Vanessa?

So James was a BBC engineer, he studied broadcasting, he was a broadcasting engineer with the BBC in London, or Bristol, or wherever it was I'm not sure, and then he basically became a satellite technician for them, and then went freelance and became a satellite technician for lots of different news companies: CNN, Sky and all that. He spent about maybe ten years travelling around the world to sports events and war zones and stuff and ended up in Johannesburg for the rugby world cup I think, and loved it and also was tired of travelling, had made money. He then started a motion control business and moved to Cape Town and worked out of the Video Lab offices where I met him. Then he had a studio here, he opened a studio, his own studio in Dunkley Square and then I hired space from him for about a year or two years.

What was your involvement with Video Lab?

I didn't have, but my flatmate at the time worked for Video Lab, so we kind of connected through that.

What was their name?

That was Craig Parker, he's a colourist now for Refinery, I don't know I think he's gone off on his own. So, then actually we didn't mention Jean-Michel joined us in 2014, 2013, um 2013, so he's an accountant his background was film finance in London, he did a lot of deals and he came back to South Africa cos he missed Africa and being here, and we met up, and then he helped us with our business model for some applications and we were like you know what we actually need an accountant on the

team, we're going to be rich soon... so he's also he studied business, so he's also brought a real entrepreneurial mindset too, that's beyond just animation, it's all about how do you build a brand and build an audience and then he also obviously handles all of the money so he's our financial guru. Vanessa, she had spent about ten years in the film industry when, when we got hold of, when we started working with her. She was working with the director of *Zambezia,* Wayne Thornley, but she had been on a few Sunrise productions before that and then, then she started working on *Zambezia, Khumba* and she came back for the story lab, and then she came back when we needed to run the story lab, and now is the development producer, so she basically is in charge of all of the stuff that we do in development.

Sorry, just the name of the director on Seal Team?

Greig Cameron.

Thank you so much, this has been amazing.

You're welcome, it's a pleasure.

An Interview with Anthony Silverston concerning the development of aesthetic and narrative at Triggerfish.

Fri, 14 Sep 2018, 12:35

nthony.Silverston@triggerfish.co.za>

Here we go. Happy to elaborate if you need anything else.

A

From: Kelly Walker **<kelly@uca.co.za>**

Date: Monday, 10 September 2018 at 7:02 PM

To: Anthony Silverston **<Anthony.Silverston@triggerfish.co.za>**

Subject: Re: Triggerfish Interviews

Hi Anthony,

thank you so much for getting back to me, I would actually still love to hear your opinion on the following questions:

1. What do you feel has either been lost or gained if anything via the shift in medium from stop motion to CG animation?

If it were possible, I probably would've stayed in stop-motion, but the industry changed just when I was starting out and learning CG was essential in order to keep up. As an animator, I missed the hands-on, tactile part of the stop-motion process. I found working through a computer extremely frustrating at first, and although CG is always improving, it often feels like the focus often ends up being on the technical side of things rather than the story, or emotion.

I think it also makes it harder for an individual to make a short film, because you often need a team of specialists to make a good CG film. On the other hand, CG does allow you to reach a much wider audience. Unfortunately stop-motion has this sort of limited association in people's minds that make it 'niche' and, while films from Laika and Wes Anderson are almost changing that perception, the box office has so far only reinforced that opinion to most investors.

Now that the CG software has become so advanced, though, it is much more accessible which opens up the door for the craft to become the new focus so that stories can be visualized in more interesting ways.

2. In what ways, if any, have you had to alter your narratives in order to suit foreign audiences and would you say that these changes have influenced the authenticity of the stories being told?

I think authenticity is a bit of a subjective thing. I knew the concept for Khumba was broad enough that it could suit an international audience, while still retaining an authenticity that could make it more of an authentic animated film from African than had been widely released before - if that makes sense.

For me, it was a personal story set in a place that I loved as a kid and made by an amazing South African crew who then all brought a piece of themselves to the project and yet it connected with kids from Chile to China. I didn't need to do anything different narratively. The only changes I made were superficial and to make sure it reached people all over the world eg swapping out a word that might have another meaning in a different language or be confusing. I think it's much easier with animal characters.

A lot of focus or critique locally was made on the American voice cast, but the South African version of Khumba had an Afrikaans and isiZulu soundtrack too. *Zambezia*'s first voice track was all South African and it just did not work for international audiences – for multiple reasons – so we were more targeted in our approach on Khumba. We used local voices for the Gemsboks and Springboks for very specific reasons that suited these characters and then left the rest of the cast to be whatever accent suited the character. International celebrities help the film reach a wider audience in English-speaking territories, and in the rest of the world, animated films are dubbed anyway, because the target audience cannot necessarily read subtitles anyway.

3. Does production for a global demographic as opposed to a local one affect character or production design?

I think production design is one of our selling points, because we can present a world that has hardly been seen on screen before. So, the more we lean into the world around us, bringing in our unique visual references, the more the film can delight audiences. I think the danger is to conflate the idea of designing for an international audience versus creating an appealing design that will entertain family audiences. There are some designs that are perhaps too stylised to hold up for a story that needs to engage attention for 90 minutes, whereas for a short film that is less important.

Also there have been two recent publications that position both Khumba and Zambezia within the spectrum of post-colonial representation, from my perspective as a CG artist, this feels like a rather linear comparison and ignores the realities of production for an international audience, or the lack of a domestic consumer market anywhere near large enough to support feature films without international distribution. In light of this my final question would be:

4. What is your opinion regarding critique of Khumba and Zambezia that describes them as promoting colonial representations of Africa for consumption by international audiences?

If I am remembering correctly, one article or paper said Khumba was promoting colonial representation because there were no humans shown in it, so it was like we were portraying Africa as this wild, unpopulated place. Besides the fact that humans were outside of our budget at the time, and the Karoo is an area with hardly any people in it, I just didn't want to take audiences out of the story by having the talking animal characters come into contact with humans. So the tourists in the game park, for example, where represented as "animal-like" which is how I thought our characters would perceive them. I do think any meaning or interpretation can be overlaid onto any story, so I don't pay too much attention to academic interpretations of the story, but I will say that we did all laugh at how, sub-consciously, we had written both Zambezia and Khumba as such obviously post-apartheid stories. In both stories, the lead essentially broke out of his isolated home and joined the global community, which is what it felt like when apartheid ended and South Africa joined the rest of the world.

Thank you so much for your time Anthony I really appreciate it

Kindest regards

Kelly

On Mon, Sep 10, 2018 at 4:44 PM Anthony Silverston <Anthony.Silverston@triggerfish.co.za> wrote:

Hi Kelly,

So sorry I never got back to you on this! And I was out when you met with Stu + Mike. Hope you got everything you needed? Otherwise, if it isn't too late by any chance and you do still need to know anything, please lemme know.

Anthony Silverston

Head of Development, Triggerfish Animation Studios

An Interview with Hilton Treves concerning the history and development of CG animation in South Africa.

Hilton, so we spoke about this briefly on the phone, but where did you start out? You started in Joburg, when was that?

Okay, my first, the first company that I registered was in 1998, and that was, well, let me, let me take it back, because it wasn't my first company it became as result of various steps that went through. I got involved in the computer graphic industry, if you will, through desktop publishing, okay so desktop publishing in 1984 was the sort of, the start of computer graphics per say, and at the time the only way that you could do, Photoshop wasn't, had just basically popped its first version of its head up. Paul Brainerd had just released a piece of software called Aldus Pagemaker, which was the first official DTP piece of software. Apple had just officially announced the, the first version of the Mac which had a graphic interface, and along that particular line you then had Adobe, and John Warnock had released the postscript computer language which was designed to control and manipulate typefaces and vector art, up until that point pretty much everything had been rasterized, so it wasn't scalable, it was, a font was that particular size and that's what it was, and it would print and it had jaggies and it had all of these other things, there was no clever algorithms to fill in the gaps, and so you had that. So, when 1984 came along and Apple officially released the Apple Mac, there was this potential of all these graphics and bits and pieces coming out and I started bringing Apple into the country with a company called Punchline in those days and we were looking at what could we do and where could we get stuff into. We started selling this technology into the repro houses. So, companies like Beith, or, what was the, Beith was one of the biggest ones, Colours Reproduction was the other one, and these guys had been traditional type setters, okay, so they would set up type with little blocks and everything would be laid out and you create this and then a company called Linotype came along with something called the Linotype 100 which was basically a glorified laser printer, because Apple had just launched the, their laser printer, and Apple was, had an exclusive on postscript, they, nobody else could use the postscript language for a period of two years at the time. So, Hewlett Packard had a, had a, they had a laser printer, I think Sharp had a laser printer, but nobody could use the postscript language. This gave Apple quite an exclusivity type thing and it became the darling of the repro industry. So, anybody could now go in and use Pagemaker and layout a nice looking page and you had thirteen fonts available, that was it. Two years later you basically got the next generation of printers, and then, the, the postscript fonts became the, that was the start of people starting to see the potential of personalised computer graphics. At that same point in time what was happening that a company named Evans and Sutherland were creating flight simulators, okay, and the flight simulators were then using a graphics engine that was a very dedicated piece of gear, so you would then, it could do vector type stuff on screen and you could literally go and it was linked to a motion based simulator, and SAA bought one of these big things to train people on the 747s, so the pilots would go there and we went along to go and have a look at this thing and I was blown away by, what the potential of this graphic system wa, and I looked at this lot and I though no this, this is, everything's heading in this direction, at some point in very, very near future, the very near future we're going to start seeing a, a

revolution in computer graphics. At that time I was really now pushing desktop publishing and along that line there was a thing called presentation graphics that kept popping its head up, so you'd got to a company and they would say we want you to print our newsletter or we want to buy this thing, but we also want to be able to do slides and powerpoint wasn't around yet okay, we want to be able to do these great slides, we want to put some pictures on this thing and we want to put them on a projector and we want to project it in a boardroom. So you look at that and you go okay, where do you there, and there was only one company in South Africa at the time that was doing that and it was called, that was Beith, and they had a, a system called a Scitex. Now Scitex was a, well it was a scanning system, they had the ability to print and they had the ability to shoot out on a, on something called an Oxberry camera, a, the slides. So, basically they would put the image and expose with a little colour wheel and it would expose the, the graphic and you print a slide, you print something and you put it up and there's your presentation, this bullet point presentation on a slide projector and that was quite an eye opener, because now here you've got this great graphic potential and came around 19, it was 1987, the beginning 1987 I started to see where some of the computer tech was going and I met a guy by the name of Don Seale. Now Don had just came back from America and he had been working with a company that was about to launch a piece of software called Wavefront. Now Wavefront had a full 3D system and we're going, that, that year 1988, the, the following year 1988 I went to a conference in Boston, because I was looking for new technologies, I tend to be giving birth to barb wire, walk on the bleeding edge has typically been my sort of mantra if you will.

So was that Siggraph that you went to?

That was Siggraph and that point in time Siggraph was then maybe three hundred people strong, okay, and when I arrived there I met some incredible people. I met a guy by the name of James Blinn, who was the guy who created the Blinn shader and he was there, he worked for a company called JPL, which Jet Propulsion Labs. So you started to meet with all these different people and then there was some very early development and at the same time Silicon Graphics, up until then Open GL graphics had been the domain of the mining systems and the, the engineering companies and it was, it would cost you four or five million rand for a workstation, it was a super computer, it was basically a, Silicon graphics created the, the super computer along with Sun Micro Systems and, and it literally happened in a period of five years from 1984 right to in that, that window, that, that flicked over to the early first 90s. That period of graphics just went, exploded, Evans and Sutherland's flight simulator went from vector graphics to rasterized graphics all at the same time. Sun Micro Systems had now taken on what Apple had taken and created their interface, but had perfected in a unix environment, given more facilities into that space. Silicon Graphics had created this incredible workstation that could do VR, you know, and at that time it was a prototype VR it was a system called Virtuality, where you literally sit in a, in this thing and you would drive a tank. It was a tank simulator, okay, and you put the headset on, and the full 3D headset, and you looked around and then five minute later you were puking your guts out, because the refresh rates and the feedback was not fast enough, so, but the technology was evolving and you could see where this thing was gonna head, and beyond that point, and then, we, we decided then, I decided, I

came back here and then SABC was about to launch a TV channel, and then I was watching this thing the one night on TV, this thing called Network, it was program called Network which became the SABC news, and they had this log and I went cool I just saw something like that at Siggraph, okay and this big pink ball that just flew on the screen and an N flew, flipped on this side, a 3D N flipped on this side, and an N flipped on this side and it, it was, these six Ns made up this logo and this thing sat in the middle and rotated and I went shit that looks cool, that really looks cool I've gotta do that shit, okay, and then I found out how much the SABC spent on it, and that time it was eight hundred thousand rand to have it done, okay, and it was done overseas, and it was done in London.

Do you know who…

I don't know who did it, but that was done in London and that was the start, that was the first 3D animated logo on TV in South Africa, was the Network logo. Everything else was stuff that was Paintbox, or stuff that was 2D, t was typed stuff, the, the SABC had these Paintbox systems from Quantel and they were doing nice paint up and slides and stuff like that, and that's how, how the graphics were done before that, and when I saw that I thought no we've got to get into that, somehow we've gotta do that, and I then bought two Silicon Graphics Machines. Silicon Graphics announced at that 1988 show, these Iris personal workstations. It was a twelve megahertz machine, could handle 32 gigs of ram, it had the first Open GL graphics card inside it that was not part of a supercomputer scenario and I bought two of these machines and I also came across a piece of software then, which was then something called Alias Animator and it was version 0.9, it wasn't even an official release yet it was still a beta release and I'd seen it at the show, and then the software cost about half a million rand per machine, the workstation itself was about 1.2 million rand, okay, but if you're charging eight hundred thousand rand per logo, okay, so we went out and I sold the house and family invested with me and everyone came along for this, Hilton's vision of a ride of where things were gonna go, and I installed these two machines and away we went, and we started, and when I started sitting on that thing I started to write some really cool software to do fractal algorithms that created clouds and, and stuff like that and a friend of mine Don, was doing 3D on stills, and you know aah can we do this in video, and then we've gotta figure out how we can do 3D stereography at the time, and I'm like ja it can't be that difficult, I mean the math is simple, I mean take one camera, this camera work an offset and we just figure out how we're gonna see it, that's what we gotta figure out how do we see this shit, but we can do it and we then built this fikkin weird headset that we built. It was this big box with two black and white monitors, little monitors that were just the right distance away, in there with a divider, in this box and were connected and one was a graphic monitor going onto one stream of images and the other was going to another stream of images, left eye and right eye, and then we started to experiment and play and we built a 3D system and that was 1989, at the same time as that was happening, ILM had just, and we had the same software that ILM had at the time, they had just done a piece of a movie called The Abyss, and the Abyss was so groundbreaking, it was James Cameron's movie at the time, and they had also taken the first use of 3D laser scanning to scan a digital human, which was Mary Mastrantonio, I can't fucking pronounce her name the actress, they scanned her with a laser and it, it was a structured laser system and it was used for engineering, for

reverse engineering car parts and stuff like that and they managed to get her to sit still and the scanned this thing, and it took days for this thing to load into the software and, but the created this creature called a pseudopod which became the groundbreaking piece of its time. Prior to that there were some other major events, I mean Tron did some stuff that was amazing that was basically the start of everything and we were sitting outside in South Africa on this fence, because it was just so expensive and it was like you couldn't really go down there, I mean Sherlock Holmes there was a thing called …

The stained glass window

The stained glass window, that, that was one of amazing bits that were done and that was Pixar and, at the time as well, it was one of their first CG pieces in a live action film, and then, as one went through the different things, but the thing that stood out for me was the pseduopod and I had bought the technology at the time so we were able to technically do the pseudopod, and I went and then Open Time, which was Mnet Open Time, Mnet were just launching that particular place, so we then got to do the open time logo, which was a flying can, and a can that popped open and it said Open Time and it was really quite spectacular, today we'll knock it out in two days, then it took us six weeks to do and the rendering time, we would sit there and you would render a frame and it'd be 288, sorry 360 by 288 would be the size you'd render on the screen so you'd get a preview and you would calculate how long your render times were going to be in inches, so how many inches have we got to go still, okay, okay that means it's going to be another three days to render that frame, you know, and so we sat there and we went through it and then we, everything that had to go done had to go through to a frame buffer which was a card that put one graphic image in, the video tape played five seconds through, synced on that frame, played five seconds, rewound while you loaded the next frame into the buffer, came back and you laid out one frame at a time, at a time, at a time and then came digital disc recorders along that allowed you to put ten seconds to a disc and you could play ten seconds at a time to tape and then you had to copy that and this is how it built. I mean obviously the evolution of technology, it was really pioneering and, and early development stuff and that was, that was quite an amazing time, because everything was phenomenal, but there was no work, everybody was too scared to spend money, advertising didn't spend money, it was too far and you fought like hell for every single thing and eventually got to a point where we couldn't keep the business open, it just got to the point where the, the artist just, you didn't have artists that were easily around. At that time I'd already met Ric Capecchi in those days and I'd met another guy named Glenn Coppins. Glen was this crazy 2D animator and just the various personalities, so we did this thing for, sorry just jumping back to the stereo thing with Don. So, and Don had, we did an exhibition at the Everaard Reed Gallery on 3D, it was an opportunity to show people computer graphics and with stereo and so what we did was we set up these two projectors on a pneumatic, two pneumatic pieces we laid down, and it was just two pieces of clouds, one this way and one this way and it felt like you were flying in the clouds and it was as simple thing where the cameras were offset and you just were traveling in this fractal world that I had written and it was all in 3D and then all of a sudden a little ball popped up in the middle of the screen, and there was this floating ball that came towards you and you just sat in fear and everybody would come into the Everaard Reed gallery and they would put these little glasses on, and the

glasses then weren't circularlly polarised, they were vertically polarised and horizontally polarised so you had lots of bleed from all over the place, but it was cool it was in 3D, okay,and from that we then developed, we did the launch of CCVTV, and that was a launch that we did with Mark Steinhobel and VWV studios, and what was really amazing on that, was, because it was all in 3D and we had devised a way to film 3D with two cameras on a, like a, like a tripod head, but it was a long head that had a series of screws in it, so there were counter screws, so whatever the, the cameras would work in parallel with each other okay, and then you had another screw that all it did, it did what's called a tow in. So that, the reason why you did that, was, that wherever your cameras were pointing, certain things depending on how much you wanted the ball or the object to jump out of the screen, you would have to have different controls for depth, and these physical screws allowed us to physically control the cameras, to the further apart your eyes were, the bigger your offset was, the, the bigger your depth perception was, but at some point you could break it, and then it, the illusion was lost, so you, there was a fine line that one had to cross and to, to manipulate, and that was, that was sort of like, that was the very first major stereo job ever done in this country and that was in 1989, 1989, I think, ja.

And what was the name of your company then?

Then it was Dreamwave ja, we'd become Dreamwave. My first registered company in this field was Dreamwave, when everything went to hell and we couldn't afford to pay everything off, we, we then we, it, just, we ended up liquidating the business, we just couldn't start it then. Out of the liquidation funnily enough, a friend of mine decided he was going to help us and he wanted to buy the gear and we were moving into a new phase and we set up Digital Directions.

What friend was that?

The name of the friend? Is Rob, God I've gone blank on his surname, he was from Botswana, he loved the idea, Rob, Rob, Rob, Rob, Rob, gee wiz, I can't remember his surname it was thirty years ago. Ja he was just a financier, he just just liked the idea cos he was in engineering and mining and he wanted one of these machines for mining businesss and stuff, but so I'm just tryna see where chronologically , where, where, where things sort of like bounced, so we did the CCVTV launch, and that went very well it was choreographed dancers in 3D images and everybody had glasses under their seats and they put them on and then watched the CCVTV logo appear, and then we just started to do a couple of station identity things for, for MNET and for the, so we did Carte Blanche, and we started to do those logos. That became our mainstay of work, Super Sport logo design, for a long time we were busy doing a lot of station identity, where computer graphics was being consumed was primarily in that, it hadn't even really got into television advertising yet. Before television advertising it literally was logo bills and title slides and stuff like that. We did a, I'm just trying to think what was the very first TV ad that we ended up doing, I think we did an ad it was for Don Searle and it was for a bank called Volkskas, it was a hundred percent CG ad and it was the first phot real, inverted commas, piece and it was a Nautulis shell. It was the creation of a Nautulis shell that grew based on the rule of thirds and basedon the, the way that a shell

grows in terms of compound interest, okay, so you would start with a value and it would go out and it would spiral out and spiral out…

Okay so Fibonacci

So ja, ja, Fibonacci, that's exactly right, that's correct, so we then set up to animate and create that particular job and it was a simple shot of some texture on a beach and then the shell that actually built and created,and it won some awards and it was mind blowing it made the newspapers. It was the first computer-generated ad at the time, and Don was the director, and we were the animation house that were on it and it was cool, because it was really...sorry I need just to call quickly..okay...sorry more or less where were we up to?

So we were up the Nautilus ad

Okay, so that was the, that, that was for Volkskas bank, which ultimately became Absa, eventually, because Trust bank and Volkskas merged to become Absa. We also did another ad later on the following year for them which was sand, an hour glass, sand falling through time and stuff and that was also interesting 3D, and if I look back at those, I've tried to find them, I tried to find copies of these ads…

You don't have them?

And i'm like I don't have them, I'm like ah what an idiot, because they were amazing, at the time they were completely groundbreaking, and, while, during that time I think it was 1989, a company called The House Next Door started

Ric was talking about them

Which was run by somebody by the name of Shirley Sunter and it was part and parcel of the Video Lab group. Now the Video Lab group was Mike Smit, was the guy who started the Video Lab Group, and the House Next Door, we had bought the Alias software and they had bought the TDI software. Now TDI was a French company, Thomson Digital, and it pretty much there were basically at that moment in time I think there were four pieces of software that were being released that were, in inverted commas affordable, none of them were affordable in real terms, but you had TDI, you had Wavefront, you had Alias with their software and you had a company called Symbolics. Symbolics was completely different to everybody else, Symbolics ran in a computer graphic language called Lisp as its underlying structure and Lisp is a language which is today very, very prevalent in AI. It was the foundation of all AI computer languages, so it was an artificial learning, an artificial intelligence structured language so you could write algorithms in that software that you could make objects, sort of, aware of other objects in the scene.

Oh I see so like machine learning?

Ja, so machine learning type stuff, and a chap by the name of Brozsek, was brought out by The House Next Door to do a job for Keith Rose, which became one of the single biggest computer graphics jobs ever in terms of awards and recognition etc and it was BMW Liquid Mercury, and it was a simple thing of liquid Mercury drop that caressed and drove over a woman's body and eventually settled in her navel and the logo appeared, okay. beautifully , beautifully shot, very elegant, but at that time there was no computer graphic interface, okay, everything was done by mathematical arrays and formulas, okay and Bela was this, this , frickin rocket scientist, genius, who had come out from Poland, I think it was, and the brought a Lisp machine, they brought this Symbolics machine into the country, and they filmed this commercial by using, Keith filmed it and then they took this lady and she had to keep still and they had projectors, and they projected grids on her with physical analogue with slides. So they actually created a grid and the grids were worked out mathematically, so Bella would literally program, go from this point to that point, to this point to that point, to that point and this thing moved and when it settled then it gently rocked and did its thing. That you can find online, because that won awards at Cannes, it won awards all over the world, but it definitely, it got a Grand Prix award at Cannes, because it was, it was, the concept was so simple, but it was so beautifully executed. That was called BMW Liquid Mercury. Director was Keith Rose, and it came out after the Abyss and Terminator 2 had come out so the Liquid Mercury thing was in everybody's brain and psyche at the time, and that, that was pretty awesome, and that was done, that was directly done with Bela. Bela today is, Bella Brozsek today is doing, he's chief scientist at some research laboratory in Thailand now, but was given huge grants to, to create amazing and interesting tech...he was one of the founding people of Digital Domain, he went back to Digital Domain and became one of the founding engineers and software people behind Digital Domain. I'm just trying to think where, I'll get you his details, because he's actually worth contacting and talking to. Also in that same time period this Dave Prescott came to me, my friend who's now living in L.A…he's just joined a new company … now, but…there were some very interesting key people that started to surface in this time period, and very few, and we're talking about computer graphic animation, now at that sort of time period when I started the Dreamwave I employed a chap by the name of Gerard Smith, and Gerard and Rick know each other, or they knew each other, Gerard's passed away now unfortunately, but Gerard was a classical 2D animator ala Ric, okay, so he, and he used to work with Ric a lot or he used to work with Glen Coppins a lot, but Gerard was the most amazing character, he stood like an animated character, he walked, talked to him, he posed like an animated character, it was just, it was like his whole being had been infused by it, but he was an incredible stop motion animator and he did a couple of pieces and there was one that he did for Dulux, I think it was Dulux. Dulux something guard, about these little women puppet characters sitting out in the sun and basically as the wood cracked from the heat, but the built all these models and lined up all these models in different stages of cracking, and he built all the characters and prepped them and then they stop-frame shot them, and it was too beautiful okay. It was too beautiful to see, and he did like three or four of these as a series or bits and piece for that, but he had done stop-frame for all sorts of other bits, and he had done so much in terms of 2D animation as well.

Was that linked to the varnish stop motion ad that Triggerfish did. The tanning one, they did a tanning one for Dulux?

When was that?

That was in the 90s.

Yeah that would have been, that would have probably been the same bunch of people. I think Gerard might have been involved at the time.

So they might have gotten involved with that, I'll follow up on that, it'll be interesting.

Follow up on that one, because there, there was a whole bunch that were done then, and that was, that was pretty cool. Then, ja Reece, Reece was just a Pain Box operator who came on board at Dreamwave, but he didn't, didn't do anything major afterwards. He actually just became, he wet back into classical art and sculpting and things like that, I don't, I think that the computer side of things just didn't go, gel with him too well. What else was interesting at that time period? There were a couple of companies that were staring out then, we had been around, we had started now Digital Directions, and Digital Directions was basically the hot house, if you will, for some incredible computer graphic talent. We had Dave Prescott, we had Jason Iverson, Darryn Hendler, Billy Rens, all these guys are now top of their game world wide. None of them are left in South Africa, except for one actually Eddy Adenol, he's still around he's still in South Africa, but he's not an animator, he's a compositor. Then you had interesting matte painters that were around, you had a guy by the name of Robyn Muir. Now Robyn comes from a classical glass painting background, so he came from this background of being able to, literally, you walk onto a set, and it's this massive mural that's painted on the set and you look at it and you go well that looks weird, and he'd say to you look through the lens and the camera is set up and you'd look through the lens and Jesus that's 3D, okay, he could paint 3D and he used to have a bottle of whiskey and his paint brush and he'd be painting on these walls and he was this character and he was just one of the most incredible matte painters that are out there. Then he adapted, when his craft of painting scenics and all of that for film sets died, he re-emerged in the, the digital realm, so he, he embraced the digital side of things and today he's one of the, he's still one of the best matte painters there are, that exists out there. So that's, that was Robyn, what else is there in terms of actual specifics that were critical.

How did you come into contact with Ric and Glen?

Glen? Ric, I came into contact with, he was putting together a thing that he was doing with…he briefed me on a job, I'm trying to think which, what, what was the job that it was at the time, but he needed some stuff done. It was Cappecino Animation, and … balls I can't remember, I actually can"t remember. I remember Glen Coppins, very distinctly we, we had this job to do for Rolo, it was a UK job, but at the time

there was some equity thing with the hand artist so we had to do a hand artist replacement. So we went and shot this other hand artist and we had to cut out this hand artist's hand and put it back into the original ad, because we couldn't have the original hand artist's hand in the ad, and we had to reanimate some of the 2D animation and Glen had redone all the animation. That's how I met Glen.

Was that in the era of the Last Rolo ads?

Yes it was my last rolo and all of that, there were about four of them that we ended up doing.

Ok so that was when Ric was also doing the Simba Chippie Ads as well?

Yes the I wana be Simba Chippie, yes, ja … I can' t remember exactly I'm going to ask him … ok I'll call and ask him. Okay, so but it was, it was 25 years or thereabouts that we first sort of crossed paths.

Those are all still really memorable ads, I mean if I look back those are the only ones that I really remember, is those.

They were spectacular.

They were.

They, they were good ideas they were, and they stood out, from, from, the, the rest of the world. I know we beat Ric on one job, and it was for Simba, but it was the first 3D Simba and we did it with Don Searle, and it was Gretchen Willsenag, Willsenag's was the agency, and Ric was very friendly with Gretchen and them, but he couldn't do 3D at the time, and Don Searle was sort of seen as the 3D director, and that was sort of seen, I think it was a turning point, because that became a factor where 2D was now being looked at and 3D was a gimic, and 3D became the thing to do and we had the Simba character floating in space and it was also I want to be a Simba chippie, but it was now a 3D variation on that.

Can you remember when that was roughly Hilton?

Roughly 1993/94 somehwere round about there. I went, I actually went to try and find these ads online and I can't find any of them after you and I spoke, like Sjoe I better find these things, it's very sad, but it was all, it was cool, and there was another job we did for FNB with a holographic logo.

Did you come into contact with a company called The Works at any point?

Oh ja, that's Reg Nanckovelle, and The Works were an offshoot that started off from The House Next door. Now basically you had Reg, you had….phew….a Chinese guy…I can't remember his name….Gavin Hong, Gavin Hong. Gavin Hong, Reg Nanckovelle and another chappie, a very Afrikaans

guy, he now lives in Knysna, damn I can't remember his name, they started The Works with the backing of a guy by the name of Johan Kruger. Now Johan Kruger, was from a company called Multi Visio, and Multi Visio was a company that was doing predominantly car launches, and they did massive car launches, BMW and Ferrari and Johan was famous, because Johan had an old Ferrari shell stuck on his wall and a Ferrari engine on, that's his, and a piece of glass on top of it that made his desk, and they bought the very first Flame that came into South Africa. So they bought the first Flame, and Gavin became the first officially, official Flame artist of, in South Africa at the time, and they were doing some pretty cool stuff. They were using a TDI system.

Phone Rings

Ciao Ric…can you hear me…it just died. Anyway so that was the thing, so they set up about the same time as we set up Digital Directions, they were setting up there, they had left The works, the were, they were the Hero Artists at The Works, sorry… they were the hero artists at the House Next Door. They left The House Next Door to go and set up The Works, and because the guys were, they were TDI animation setup, and it ended up with there were, basically, it basically was the three of them, plus the, the backer, the financial backer, Johan Kruger. Wow, interesting, I haven't thought about them for ages either, and they did great work, they were around for about ten years.

What did they work on can you remember?

All television commercials.

Phone Rings again

Can you hear me now Ric? When did we meet, when did we originally meet, what was it, I'm trying to remember if, cause I'm sitting here and we're trying to put the history of this whole animation goodie thing together…when did you and I meet, what did, what did we meet on? What was it? It was fucking forever ago, I've got Alzheimer's man. Ja, but that, that was Digital Directions then, there you go, there you go … I can't remember it either, Im sitting here going what the fuck, what was it. I know before you I was working with Glen Coppins on some stuff, it was the Rolo ads, some of those Rolo bloody things, do you remember those? What wad that job that you did with bushmen paintings and the stuff, on the tiles…for Ogilvy and Mather at the time, Gosh we, we've lost so much of our stuff, going through all this stuff in terms of all our bits and pieces hey, jeepers china. … Ja, but you, I'm, I'm still more pretty than you, so it's okay, alright bud I'll speak to you later, cheers bye.

We're trying to put an Animation School now together.

You're trying to what?

We're trying to put an Animation School together.

Oh, okay.

Ja…Okay, so Works, I don't know, there was nobody else who really started up after The Works for a long time. The Works became the commercials shop in town to go to. They sort of became the, the, and we were sort of doing launches and other things, we weren't doing so much in the way of TV commercials at the time. House Next Door, was the first big TV commercials house, in terms of graphics, and then it was literally. It ended up being the three of us for a very long period of time. It was us, House Next Door and the Video Lab, or sorry The Works I mean, and then after all that Digital, Digital Directions then merged part with Six Street Studios, and that became the Refinery. That was 1998, I think, something like that, we became the Refinery, and we set up here and then the Refinery became the shop to go to, because it had huge backing, for a long time, but the industry couldn't sustain the size of what was being built. Everyone had these ideas of grandeur of building these massive, monster post houses and the likes of what was going on in Europe, and industry is still today, the industry can't sustain these things at this size there's just not enough, the pie is just so big, it's just there's only so many people in South Africa and that's the population that we're dealing with. So what Triggerfish and Sunrise, ultimately have done, they've gone in the right direction in terms of content creation. Creating their own IP, that's the only way that you can really sustain and grow your own country, in all honesty, because as a service indsutry country, this country is not big enough and the industry is so fragmented now, that it's, and the, there are, the, the college's a re pumping out so many students with nowhere to go, and that is such a, such a huge problem. We don't have a massive growth industry, and that's another topic for another discussion, but it's exactly that.

I think that that's everything that I wanted to ask you Hilton, this has been amazing thank you, I actually can't thank you enough.

It's alright, there's... we haven't even scratched the surface, so if you want to talk anytime about other bits just ask hey, we can have another coffee, collate what you want and then we'll fill in the gaps, fill in the holes … and if there's anything you want

An Interview with Matthew Brown concerning the implementation of pipelines at Sunrise Productions.

Mon, 10 Sep 2018, 09:16

ı.co.za>

That's perfect the questions I need answered are:

1. How has the software utilised changed from early production on jungle beats until now?

2. How has the hardware utilised changed from early production on jungle beats until now?

3. What production/pipeline practices or protocols have been implemented or altered over time?

Thank you so much for your time Matt I really appreciate it

Mon, 10 Sep 2018, 10:28

ı.brown@sunriseproductions.tv

Hi Kelly

1. How has the software utilised changed from early production on jungle beats until now?

Jungle Beat seasons 1 and 2 were done mostly in a Maya pipeline, with photoshop for texture, Renderman and Mental Ray for rendering and Nuke for comp.

On Season 3 of Jungle Beat Sunrise raised further finance and for the first time could produce at a decent speed - one episode per month. The staff grew from 11 people to 40 (including myself). The new lighting supervisor was a huge fan of Houdini and since we wanted to build a new pipeline from scratch we opted for Maya in production, Houdini in post. That Maya/Houdini pipeline was continued in Jungle Beat's spin off shows The Explorers and Munki & Trunk.

2. How has the hardware utilised changed from early production on jungle beats until now?

Since seasons 1 and 2 of Jungle Beat were done so slowly, by such a small team there was not a huge amount of infrastructure. When we produced season 3 we had some proper cash allocated to hardware. But Houdini just eats render farms for breakfast and we had to rent farms, but farms, outsource farms etc.. We've built on that base with the budgets from other shows and now we have a healthy hardware setup with local backups as well as off site backups.

Like most studios we run Linux except for some Mac's in the pre-production departments.

3. What production/pipeline practices or protocols have been implemented or altered over time?

The pipeline is an ever evolving process and there are many aspects to it. It can be frustrating when you have deep technical hurdles that need to be solved so that the artists have an easy, usable process. It still boggles my mind that we need a team of coders, working full time on our pipeline, and that every medium studio does. There in nothing you can buy off the shelf to run your pipeline and processes - I'm sure it will come.

We use Shotgun to track assets and shots and we make it work for us. We're also extremely strict on naming conventions, folder structure, email subject lines etc.. You just have to be.

thanks!

Matt

An Interview with Phil Cunningham concerning the history and development of Sunrise as a Studio.

So the first thing that, that I wanted to ask was what did you do before stop motion? You were in Zimbabwe right?

Ok let me start ja, so obviously I was born in Zimbabwe, grew up in Zimbabwe, our family were obviously, because we're from Zimbabwe, very agricultural so there was no one involved in the film industry at all. So from a young age, the reason I'm in this business is, because I love cinema and storytelling. So it revolves around, for me, it all revolves around story. So, although I lived in Zim and I loved the outdoors, I used to spend a lot of time doing like graphic novels, well my own kind of graphic novels, just telling stories. Then I went to university in Pietermaritzburg, studied agriculture, because no one in our family was vaguely connected to the film industry. When I got to varsity I carried on studying agriculture, but I was really struck by, continually struck by, the incredible power of movies to influence society, and what I realised is, like those guys in Zimbabwe or South Africa wearing an Arnold Schwarzenegger T-shirt taking their moral code out of the confines of Hollywood and what really struck me was the incredible influence Hollywood was having on the entire world, how powerful stories were. And so I started with, I just became fascinated with that, and I started to think stories are like Trojan horses, because for whatever reasons people have their own defence mechanisms, and stories have got a way of getting under defence mechanisms for good or bad actually, and actually really planting a seed in someone's mind or life that they hadn't previously been open to. So, uh ja, I think as I went to varsity I then started my own agricultural business. We were trading, commodities all over Africa: Tanzania, Nigeria, and that business was going really well. So they, they say if you want to make a small fortune invest in the film business. So that was paying really, really well, but I couldn't get away from the fact that I would love to be involved in filmmaking, and again just more and more convinced that stories are a way to really impact the world. I thought you live once and you know how do you actually make an impact on the world, so stories seemed like an incredible way to do that. So in Zimbabwe we went, if you look at the street art in Zimbabwe, they take a lot of recycled commodities like copper wire, rubber, old bolts, nuts, wire and then they make them into these beautiful art forms on the street and so the director I was working with at the time, in fact I can, I don't know if you've seen the making of the Sky Kingdom, I can send you a DVD it's got quite a lot of info on how we went about it, but I'm just going to give you the surface of it now, but what, what struck us was that's an artform let's try to convert that into a film. So we've looked at street art then stop-frame animation seemed... the technological entry point was lower for us, because we were, we were farmers so what did we know about filmmaking, we hadn't done it, none of us had studied film. So we

thought, in marrying the lower technological barrier of entry together with that art form it seemed appropriate, because we were in Zimbabwe, it was authentic and felt African and again if you read, I mean I think at that stage our thinking was... commercially I'll tell you how it didn't work though, but our thinking was from the art of war Sun Tzu, if you've got an army coming against you with chariots across the plains and you don't have chariots, take the battle to the hill country. So, yeah, Hollywood obviously had this big Pixar machine and CGI machine, so we thought well one thing they don't have is African art, street art, and stop-frame. Obviously we were inspired by, we were really inspired by what Aardman had done, it was a really special kind of art form, and we felt that some of the textures and the light you could get with stop-frame is more interesting possibly then CG. So it seemed a good way to enter the market, was stop-frame, and, and actually possible for us as well. So I think you know one of the questions you're asking is like did stop-frame have an impact, I think, in many ways yes, because it gives you a point of entry, that's you know, such a good starting point, the other thing it does do is teach you a lot about film making, because your, your principles of lighting and all that are similar to live action, but at a much slower pace, so, so you know even for live action I think stop-frame is a very good training ground, because you're learning a lot about camera angles, lighting, you know, but you're learning about it, about it in a way that's less consequential, because you've got time to correct your mistakes, you know you've got a lot of time which means you can fix your mistakes.

What was the name of that studio and when was that?

So that was, we did call that Sunrise and we started that, we started *the Legend of the Sky Kingdom*, I think in 1998, we finished the film I think it was 2003. I might have got that slightly wrong, no, no it was 1999 when we started actually and probably finished 2002 and released in 2003. What we found hey Kelly was that uh, cos we were, although my passion was storytelling, we wrote one script straight into production. What we had to learn was how hard storytelling is to get it right. So we wrote one script then straight into production, and we, and we just went, whereas obviously now we've learnt you've got to really, to tell a successful story takes many iterations, many drafts, you know you've got to do it right so I think the one mistake we made on that, well not the one mistake we made plenty of mistakes, but the core mistake was writing one draft straight into production so the art form did really well at festivals, I think people really recognised something, that was original, different, so from an art festival point of view we did really well. Commercially there's two reasons I think we didn't do well. The one reason was we didn't understand the distribution of film, because the one thing you learn obviously the thing is making a film is one thing distributing a film is a, ja, another thing altogether. So I don't think we understood the distribution landscape at all, we were clueless.

The other thing is I don't think it was strong, I think it had the potential to be a strong story, but it wasn't executed at like a fast enough pace so there were elements that were lacking from a story point of view, but what it did do is made us, well made me realise I'd really enjoyed it, I'd loved it. I enjoyed making the film and we'd entirely financed it ourselves so actually, I shut down our agricultural business, decided this is what we wanted to do with our lives and in 2005 we moved to Cape Town. At that stage I'd started to run some tests with CGI animation, so we did a short called *Always Take the Weather With You*, which was a short just to test could we do animation, it was with a monkey character and it ended up being episode one of *Jungle Beats* which is, which became our main, one of our main brands that we're working with, so and again why I like CGI animation was, because I think the challenge with stop-frame was, I loved stop-frame, but the challenges were animation is all about breaking your rules of gravity and you know just doing things, and stop-frame actually you can do it, but your, for example your water special effects and your gravitation and things you can solve them, but it's hard. Whereas, I think with CG animation you can go further and, and also obviously commercially CG animation I think has got, well from what I could see, CG animation had a better mainstream channel where stop-frame was I think possible to be commercial, but possibly harder. It was possibly more of an art form, but I mean having said that obviously Aardman are successful with stop-frame commercially, but I became fascinated with CGI and what it could do. So we decided ok great experience stop-frame, but let's get into CGI animation now. So when we moved to Cape Town we, we started with *Jungle Beats* and what I did was start converting that into a full series so we took that one test case and we took a whole lot of animals and we made 13 episodes which was Jungle Beats season 1. Again we were experimenting, it was all non-dialogue, 5 minute shorts and we were experimenting at growing our storytelling abilities and non-dialogue actually is pretty good for honing your storytelling skills, because you can't rely on dialogue so you're learning a lot and I think the shorts gave us a chance to try different things too, you know different skills, and that really did do well so from that we then did Jungle Beats season 2 and 3, and that did well not just at film festivals, but also got broadcast in over 100 countries around the world.

And how did you go about marketing or distributing that?

So I've got a sales, by then I just... you know what we did when I arrived in Cape Town, in 2005 we started travelling a lot to markets around the world. So I went to, and it was, it was a funny thing, the first one I remember was Berlin, and I arrived there and everyone else was so busy, all in meetings and you know you walk around that market and you're like completely clueless and what you work out obviously is everyone pre-books their meetings so that when they go there I know I'm meeting you, I'm meeting you, I'm meeting you. When I arrived there I thought

you just kind of meet, so I literally I think I couldn't get one meeting and I started to work out how the markets work, but what we did was we travelled to a lot of markets and we got to understand how Mipcom works, how MTV works and it was a lot of just, you know, trial and error to be honest, and through that we built relationships and we got a company called Monsters Distribute, who actually are an Irish company and they agreed to distribute season 1, 2 and 3. They managed to get *Jungle Beats* into 100 countries around the world, and subsequently airlines, and from that we managed to get some investments to carry the brand on and we then produced, we've actually just finished March this year, we then produced another 52 episodes which we called *Munki and Trunk*. What we were trying to do there, because what we had learnt from *Jungle Beats* is it's quite hard having one animal against, when you've got nothing to play off you know, to create emotion or happiness. You've just got the elements, well you have except it's harder, so what we felt when we were talking to the market is people want to start to identify with and get to know characters. So what we were trying to do is to interplay, so you could get to know two specific characters and they also are surrounded by other guys as well. It just meant we could get more into their characters and their journeys and, and that type of thing, so that's why we went from just pure *Jungle Beats* to *Munki and Trunk*. And Aardman took over as our sales agent for that series, so they are now the agent for that.

And how did you get into contact with Aardman?

Sjoe, how did we get into contact with Aardman? Basically just through lots of networking and meeting, you know there's one thing I would say about business, there's three main rules about business: relationships, relationships, relationships and I actually can't remember how our eventual channel came into Aardman. We actually employed, it was probably, because we actually employed two people who used to work for Aardman, one of them was a South African who had been working overseas and come back and then through her we met another Aardman ex-employee who worked in, who lived in Bristol, and had worked there so ja, I think it was through them that we eventually got a channel into Aardman.

Can I get their names?

Ja, ja so it was Nicola Rowe, was the one who came back and then Hayley Porter is the one who's still in the UK. So through them we met with, and connected with Aardman who have been fantastic. So you know we're very early on in the sales cycle of *Munki and Trunk* and what is happening with it so far is it's selling incredibly well in the east. Like we're getting, not just selling well, but we're getting very good ratings and then we're really, what we're learning, is we're getting sales in the west, but slow. What I learnt with the big western broadcasters is that they, when it comes to TV series, they want to be involved very early on. So like even if you find, like an organization like the BBC, even if they like the product, because then they've got limited, they've got limited capacity to what they can buy, so what they're doing is they're buying projects that they've been involved in earlier. So, ja, so we're doing a project now which I'll tell you about just now called *Bear and Hare*, but we're involving the broadcasters early, because then not only do they put in money, but they also get committed to the to the distribution. So *Munki and Trunk* is also doing very well in the east. The other thing of interest, and I'm just diving around a bit just trying to give you a timeline, is we're getting now over 10 million views a month on Youtube, for *Jungle Beats* and we've only just started releasing *Munki and Trunk*. So YouTube is a revolution, like not just for us, but I mean what we've seen in the world, the pushback for the BBCs, SABCS, they're a burning platform and your pull platform is Netflix, Amazon, YouTube, whether it be it SVOD or AVOD, are where you... there's this huge expansion and if you watch... what I'm learning is that a lot of kids are not really watching BBC any more. They, they're all on ipads, iphones that's how they're digesting content. So YouTube has just been massive for us hey, and it's just been going from 2 to 3 to 5 to 6, 8, last month was over 9 and this month I know we're already over 12 (million views) and so that's one measure, *Munki and Trunk* is really just doing that. And then in the eastern broadcast, so we're very strong in South Korea, very strong in China, very strong in India that's 3 main territories.

So, what we're learning is in Asia, there's joh, that's a very fast growing market and it's slightly more, I think it's a bit like if you look at Africa for cellphones actually, because fixed lines weren't really established, cellphones took off incredibly fast. So in Asia, linear T.V, they adapted and are adopting SVOD and AVOD faster than the west. So for new brands I think it makes it accessible, and of course then the non-dialogue side of it helps us. Off that just so you know, we just recently got funding for a *Jungle Beats* feature film, so we've just started that. So we hope to finish that in December next year, it's actually in pre-production and storyboarding right now. So it's not a big film. My opinion of the film is you've either gotta go big or go small, but don't get caught in no man's land and that's I mean Triggerfish has done incredibly, I've got huge respect for them, they've done incredible work, my only comment for them, and their feature films... but they've done more feature films then we have, so that's brilliant, but it's to be careful you don't get caught in that like no man's land between like tryna compete with the, with the top films or tryna go really ja, but that's a school of thought, because if I want to go and make a movie, I wanna do it right, and so the *Jungle Beats* movie is primarily for home entertainment and it's like the budget is there the style is linked to the TV series it's not, I hope it's not, tryna be something it's not, it's tryna be what it is. It might get a limited batch release in certain territories, but that's not the goal of it. Ja so that's happening. Out of interest on the sports front we, I saw a, this is interesting in a different kind of way from a South African point of view. So we're doing a lot of work for, and I'll tell you how we got into it. I, I eventually saw sports brands as an opportunity with animation, because animation crosses race, cultural and gender barriers incredibly well. So I went to sports brands and I said you want to connect with the next generation cos in the modern world there's so much clutter, so much noise, media noise and so to kids' attention if, if you're a brand even sporting codes, like in America there's a big, there's a big competition for kids in American football and let's say soccer, the two codes are competing for their attention, nevermind the brands. So I said to some of the brands if you can understand you can really onramp kids young into your brand and animation is a way of you connecting, because kids are on the ipad, or in the cinema, or on their phone, but you can't do it cheaply, it's like, you've gotta do it properly. So we, just so you know, we just did a deal with Juventus, which is our, which is our biggest yet, we've done work with English rugby, Welsh rugby, SA rugby and cricket South Africa, so there's quite a body of work which I can show you on that, those four sports brands, but the one that lead to... on the the rugby brands we connected with Juventus football club and it's been, we did a whole TV series for them now, we're in production. 26 by 5 minutes and it's called Team J and it's basically about them and their mascot which we created for them, it's a zebra, I'll actually just show you to give you an idea what he looks like. So we did three Christmas animations and from that they said ok the response was good so then now they've just commissioned a TV series called *Team J*, which has got like a little girl called Cammy, a little boy called Matheo and then the whole cast and it's

dialogue driven and we, so we're going to finish that by December this year and the whole thing we pitched them, because we had seen with *Jungle Beats* the incredible uptake on YouTube so we pitched them that they make it primarily a YouTube release. So their whole thing is going to be released on Youtube as the primary platform, and then one of the other reasons is that your linear broadcasters you know they won't take it if you've got animation which has got branding in it, you know they're obviously not going to take it, whereas on YouTube those rules don't really apply. So Juventus has opened up doors, but it's early days so we don't have these deals yet, but we've done a little bit of work for Chelsea, and that could turn into some series work as well. We're in discussions with Man City, Manu United, and then Bayern Munich, a German club as well, but the whole thing of what I'm telling you is story's at the center of it. If you guys can tell a story, you'll you win kids hearts and then they'll then become brand loyalists in the long run. So that's one side of our company, so basically we've got *Jungle beat* happening and the Tv Series and the feature film now, and then you've got the sport side and the *Team J* thing, and then the other thing we've got going on now is two feature films in development. So those two films I really want to be, like, we're trying to go big, we're tryna do... and again I wanted to kind of crawl, walk, run in animation so sort of build skill levels. It's almost like sport, you play school level, club level, provincial level, then you go to like national level. So what I've been trying to do with all these other projects is my, passion is cinema at the end of the day, storytelling in cinema, not so much TV, but I don't think you go straight to cinema and compete with Pixar, so what we've been tryna do is build skill in storytelling and technicality to get us to a place where we can actually genuinely make a film that will compete. So ja, there's two films. One I can tell you about a the moment it's called *an African Tale* and the other one's still unfortunately confidential, but ja so that's one of them ja. That one's got a, it's not like *the Lion King*, but I'm, my hope for it is that it becomes like a, it's African, the whole story's based around the African planes and African animals and ja, so it's got a very, very kind of epic African feel, but it is in CG as well.

How have you approached Production design, as obviously from what you've said about your stop motion experience the authenticity was very important to you, how are you approaching that in production design in CG?

Ok now that's an interesting question, so coming along, oh maybe this isn't the answer you're looking for, but unpacking it well enough I guess is, what I'm trying to say, one thing I'm passionate about is growing the South African talent pool, and to grow that I do believe in cross-pollinating with some of the best in the world. So, I think that like even in sport, if you pull in some of the best in the world... so one of the feature films we were working on now, which is the one I can't give you the title of, the undisclosed project, we've just done the demo for it, and it's

a 5 minute long demo and for that we had, and I'll come to *an African Tale* as well, I'm coming to your production design question, but I'm building a foundation to answer that. So on that film we had 6 guys who had worked very high up at Disney and Pixar, actually come to South Africa and work with a team of like 50 guys here, those names, those guys I can send you their names and their bios, they were awesome guys and they've got incredible bios, the one guy also worked with Blue Sky quite a lot.

So how did you come into contact with these artists?

So what we did there, the one thing we've invested a lot in is relationships, so we've travelled a lot, so just through markets, through people and so over the last... since 2003 one of the big investments, cos I'm passionate about people as well, so we've really invested in people. So one of our main people, for example, is Rita Mbanga, and she's travelled a lot around the world and she's an incredibly good networker.

So what's her position?

So, she's well, I guess we call her a producer now, but she's ja, she is a producer she's also ja, company networker and there are others, but she's probably one of the, one of the best. So, I do believe that there's only six degrees of separation between you and anyone in the world, so through relationships I got to meet a guy called Ned Lot in Los Angeles, and Ned Lot is one of the main casting agents, so he did the voices for *Finding Nemo*, the *Narnia* series, and by the way he also did do voice casting for Triggerfish just out of interest, ja later, so he helped them with their voice casting for *Khumba* and that, but it actually wasn't through them that we met it was through another contact. So basically just through many, many meetings, travelling a lot and just getting to know people and trying to fire them up about what we're doing here in Africa, and I think the cool thing is that you know when you travel I think people are actually excited to see things happening here, and quite willing to help actually. I found they're very willing to help. So I think it's just like network, network, network and you kind of get there ja. Out of interest I don't know if this is relevant to South Africa, but we, we are also just opening, this might be relevant it might be contentious to a degree, but we're also opening a studio in Mauritius at the moment, part of that which I don't really want to get into the negative side of it, but part of the challenge, I see in South Africa, is stability in the rebate scheme. I mean, I'm passionate about South Africa and our head office will stay in South Africa, but I think one of the challenges... the point I'm trying to make, in South Africa is one of the challenges of growing industry is government partnership, cos it is true if you look at Canada, if you look at the US and you look at the UK, their sort of private-public partnerships are genuine and strong and you can't kind of

compete on the world stage, for us to really compete with on the world stage, the government I think has gotta up their game in terms of being more stable, more consistent, and look, I'm not going to shy away from a challenge, but it is a challenge, to get into government-private partnership, and for the history of the evolution of the CGI industry I think that becomes quite crucial. We, Triggerfish have been way better at than us, in terms of engaging and talking to the government. So I think Sunrise has got to up its game, so I am going to try engage more with government and explain and talk to them and build a relationship, cos at the moment I mean like it's too much hassle, you know let me just get on, but as the scale of our projects gets bigger, i can't actually afford to do that so if I look at that project there, *an Africa Tale*, I'm going to need to engage with government and talk, because it's just too big, the scale of it's too large.

So how are you currently funding if not via government funding?

So it's all... two ways, one is profit from the *Jungle beats* series, because we're not doing service work, so nothing we're doing, well actually I guess the sports brands to a degree is service work, but even on the sports brands the way we tie it into revenue share... so there's revenue we're making from brands that we own and then private investors. The route that I'm tryna go, which is, there's two routes you can go, I'll tell you my concerns, this might be interesting, from your point of view and then you've obviously thought about it, so you can go the service provider route and that has got merit, because you build skill, you build credibility, you work, you cross-pollinate with international people which is good, but my concern with service work is you can get stuck in that, in that whirlpool, so you can start saying oh I'm just doing it, because I want to build capacity, I'm just doing it because I want to get to owning my own intellectual property, but do you ever get out of that, and that's the question. Although, having said that, Triggerfish did a lot of service work, now they're doing *Seal Team*, and that's actually a case in which they actually have been doing service work and now they're getting to that, so ja, I think well done to them, but I think the danger is that you can get caught in service, that's what's happened to Asia, I think. They've got caught in this whirlpool of service work, so what I've tried to do, it's a longer, to be honest with you it's a lot longer, harder journey, to say I'm not going to go into service work, I'm going to focus on building our own intellectual property, It's a long journey. Aardman were showing me the stats, for *Shaun the Sheep*, it takes like, at least 8 years, to build an animation brand to a point where it, that's if it goes well, then you, then you start to build substance. So, like, for us to build *Jungle Beat*, we've been at it since, well we've been at it quite a long time, but really, properly, for the last 4 or 5 years, and so it's a long journey trying to do your own intellectual property, it's a bit like fruit farming. If you invest in apples, the first five years there's no apples and then after five years you get apples,

and they last twenty years, but if you stop fertilizing and water them in the first 5 years, you never even see the apples.

Do you think that the fact that you have a stop motion background, and you were speaking earlier about how it's a slower process, that it's more of training ground, do you think that that had any influence on the way you decided to run your business in terms of sort of starting slowly from the ground up rather than trying to jump straight into bigger projects like some of the other studios have?

Ja, I think we, what I think stop-frame does do, is both creatively and business wise, it achieves two things for you, I'm a huge believer in business, and in most things in life, take a long term view, and what stop-frame I think does, whether we did it intentionally or not, is not really the point, because I don't think we did do it this cleverly, but what stop-frame does do is it makes you crawl, walk, run, and I think it teaches you to crawl in terms of the creative, so you're thinking through your framing, your camera angles, cos if you think about stop-frame, so there's creative and business, on the creative side I think what stop-frame helps us learn is camera angles, you know is things like lighting, which you know, if you're just like straight into CG, I'm not sure you'd think through the camera angles as clearly as you are when you've been trained to do a whole film of stop-frame animation, so I think stop-frame animation is an incredible entry into the film business. I think it's an incredible entry creatively from a live action point of view even, so if I was looking at students I think it's an incredible tool to teach creative skills, and then I think from a business point of view, like I was saying to you it gives you a, it's a lower cost point of entry, and it gives you a lower technological entry, so you can get in there, and there's some incredible craftsman in Africa, so it's, your playing to the skills of Africa or Asia, you know where you've got all these good hand craftsmen, who understand how to do this. So, I think, it's an easier point of entry, to kind of, kind of get you into the industry, I would say, I don't know if that's answered your question, but ja.

So when you guys started it was, let me just check my notes here, it was 2005, what sort of software did you guys start on, was it Maya or?

Ja, Maya's always been one of the core products that we've been using. If you want to talk to our technical evolution it might be better, because that's actually not my strength, but if you want to talk to our guys who are more on the tech side on the evolution, but so Maya's always been a core part and we're always involved with it, what's changed a bit is our supporting packages around that, so like the renderers and the, the different compositing packages we've used, those we've evolved quite a lot and changed quite a lot as we've gone.

Is there someone that I could just chat to, it won't take long, just about what you guys started on in terms of hardware and software and what you've progressed to?

Ja, definitely, ja, I think the best thing actually is the guy I'm thinking of he's quite busy today, but I could reconnect you and ja, just remind me about that as well. So it would either be Judd Pistorius, or Matt Brown or Tim Kellar, those three.

Oh Matt I know actually

You know Matt, hey

I worked with him at Clockwork

Oh, okay, if you've got a moment, I, I've got a call at about eleven, but I, I'll walk with you and just show you what Matt's, Matt's actually directing for the *Team J* project, so what you might find is interesting is to go and see what he's doing.

I'd love that thank you. What do you think are the core differences between distribution for independent animation versus distribution for the mainstream?

Ok so, what I've seen in that is that you go about independent feature films through partners in each territory, so Russia, Germany, France and they go build those relationships then you've they've got the trust of those partners, those distribution partners in each territory take on quite a lot of the marketing money themselves, so the way the business model is set up is that they will put forward budget to actually market the product in their own territory and then they've got a recoupment and then you split. So you don't have to, with an independant animation, if you don't have the money to say well I've got 2o million dollars for P & A, so that, that's, whereas your mainstream, obviously it's like open warfare andyou'd better have a budget, because there's so much media noise and clutter you're going to try and rise above the noise, you're not just talking now animation you're talking other family live-action films. You're competing with Pixar's noise, Disney's noise, then you're going to need well you're going to have to be clever and you're going to need a big budget, I think both. You're still going to have to box smart, because you know the, uh, the Disney and Pixar, Dreamworks machine is, is amazing and they kind of steam roll it with you know posters, trailer ads, boom, boom, so the awareness factor is just massive ja.

We're almost out of time, so the last question that I wanted to ask you was, it's really a two part question, do you feel that foreign investment over government investment has had a distinct impact on the stories you've told or the way that they're told? For example, I know that Triggerfish faced debate over voice acting, is that something that you've had to deal with?

Not us, mainly, because, I'm just not sure what to say, it's basically we... I've wanted to stay the head not the tale, so I haven't taken… what I do know is that you've gotta be careful who you do take money from, so where we've taken, where our investments come from, is people who're not dictating to us any creativity, so I've taken money, but on the condition that I stay in control of the creative. So I think that's harder to do by the way, it's easy to find money where people can have creative say, but where we've been quite clear is like, actually, we will get an investor, but that investor has literally no say, so if you look at the whole Jungle Beats series, our investments have got no creative influence, I've said to them look either you guys trust me and you go on this journey with me or, this is our business. So our investment has come from outside the film, the traditional film industry, and for the reason that I didn't want influence, so *an African Tale*, look that might change, that's how we've operated until now. You may find on a project as big as *African Tale*, you start getting to a world of compromise, to some degree, because you might find you've got to have an American partner and then they are going to have their say, but up to date we've managed to keep quite clear of that. I think it's not to say we'll always stay clear of that, but one of my goals is to, one of my passions is to be in charge of the creative, cos that's why we're in the business and that's why I don't want to do service work. So to date we've been successful, the scale of a project may change our ability to be as hardcore about that though if you see what I'm saying. Does that make sense?.

It does, perfect sense, the second part of my question is, in the shift from stop-motion to CG, what would you say is the major thing that's been lost and the major thing that's been gained?

Ok, I think, I'm gonna start with what's lost from stop-frame, I think stopframe for me, is, because of its nature so down to earth and tactile and tangible, I think that also translates into your storytelling. So, I think you're storytelling can be more down to earth, simple in a good way, I mean that it kind of influences your story in a positive way I think, because your medium is so just humble. It keeps your story telling clean and light, for me it's like, it's got really nice storytelling values.

Generally more personal stories too

Ja, ja and I think that's cos you're more just, it's like, it's like if you meet people, this might sound terrible, if you meet people in the country they're typically more friendly and down to earth than people in a busy city like New York, so it's a bit like stop-frame is the country, you know and CGI is more like the Manhattan skyline. I think what I was saying about animation, the thing that for me that I could get in CG animation is about you know, you're using the medium to do the impossible and use your imagination. So what I find with CG, your animation's got more blue sky, you can do more, story telling wise there's no limit, because in CG you can actually, nothing's impossible, like you can literally, stop-frame actually has limitations to what you can actually achieve whereas it just feels good to be in a storytelling space where you can, if you want the sky to be pink, it's pink if you want it to be that high it's that high, you know nothing, there's no boundaries.

Thank you so much for your time Phil I really appreciate it.

You're very welcome, any time, and if you need anything more just let me know hey.

An Interview with Martin Heigan concerning the history and development of CG animation in South Africa.

So what I'm really interested in hearing from you Martin is, you're name's come up quite a bit with a lot of the guys in Cape Town, guys like Hilton, and I'm wanting to firstly find out where you started and to get a little bit of the Joburg history as well as the Cape Town history.

Yes, yes okay, I mean I would be more familiar with the Johannesburg industry than the Cape Town one, and ja I could also give you, which is maybe not something, or, or maybe that's something a bit more off of the record, but I can also give you my thoughts on why there's been limited success.

I'd love to hear that please.

And why the industry's been struggling so much, which is very sad for me to see, because I've definitely been trying my level best to, you know, to build something over the years, but it is extremely difficult and I'll give you the reasons why, but ja I guess if we want to start I originally studied graphic design . There wasn't, when I studied which was a long time ago, there was no animation courses in the country and that just seemed to be a very, you know the advice I got at that stage was just develop yourself, or your creativity by doing, you know one of the, going to art school and either doing fine art or graphic design or photography or you know something like that, and then go and specialise afterwards . The only way that I saw how I could achieve that then, was you know I chose graphic design and then when I finished studying I did a post-graduate where I investigated 3D, which was really still in its infancy you know? You know as a designer you ended up using an Apple Mac. At that stage there were like one or two little Mickey Mouse programmes available on the Mac, nothing really. Most 3D packages still ran on Silicon Graphics workstations, which was out of the price range of most institutions.

When was this Martin?

That was, that would have been, I started studying n, it would have been 1989. Ja I matriculated 88, so that would have been 89, and, ja so basically my, I mean the lecturers couldn't really assist me much when I did my post-graduate studies, but I just felt that you know I was interested in this area and that was the only way I could get to investigate it. So you know when I finished that then I, interestingly enough, realised that I didn't really want to work in an advertising agency. I took to computers quite well and I was always interested in computer graphics and animation and when I finished studying I realised that okay what now, now I must try and get a job in animation, but like I didn't really have much animation in my portfolio, I had a design portfolio and a photography portfolio. So let's just give it a bash, let's try our best, and that point there wasn't really a lot of companies doing this, it was, like I say, it was very new, but the first company that really started the industry pretty much was called the House Next Door. It was literally, because it was the house next door to The Video Lab, and that was originally separate, but then it was bought out by the Video Lab later.

Can you remember who started The House Next Door?

Sorry what's that?
Can you remember who started The House Next Door?

Yes it's a lady called Shirley Sunter, she's now moved abroad, and she, she initially she was trained as a telecine colour grader and then she made the transition and started this graphics division. The first system they had was one of these Bosch, they really just called it the Bosch I don't even know if there was another name for it, but it was really a character generator, which also takes you back I don't know if you know what a character generator is, but back in the day when they did video they had it looks like a mixing desk and they did a lot of things live. To go from one video feed to another video feed you would literally have a keyboard and a slider and you would go you know source A to source B, slide. So a lot of live television was done with these sort of character generators, and you could obviously do text and things on them as well. Bosch released the first character generator, that it wasn't really 3D, but you could extrude and you could revolve objects and the famous video that was done on that was Dire Straits, *Money for Nothing*. So you know those boxy kind of characters that were walking around there, and they did *Tron* on it. *Tron* was the first movie that they did on it. It was really primitive, it wasn't really a 3D system, and, because it wasn't really three-dimensional you had funny issues like if something wasn't, or you know a logo couldn't be extruded or revolved, you had to literally put in the coordinates for each vertice and programme this thing. So you know that's why *Tron* was such a big deal in the day, the original, because of how difficult it was to do it, and it kept on getting confused, because it didn't understand Z-space, because it was faking it, like ti never, things kept on popping, like it would get confused what's in front, what's behind., and you kept on having to tell it no you're in front, you're in front, this object is in front. So it was a whole different ball game then. When I joined that machine was broken, literally just broken, and it was a whole room full, motherboards and you know, and at the time it was a ridiculously expensive piece of equipment, but that was the first piece of equipment that they got and Shirley operated that as well. Then the revolution started. The first high-end 3D packages came out. They were extremely expensive, I mean that was a long time ago, you know a package would cost a few hundred thousand rand and the machine would be a few hundred thousand rand. They only ran on Silicon Graphics stations which don't exist anymore and that was the graphics version of Unix basically. You know it was a premium brand, later on they were bought out by Cray Computers. They were supercomputers you know, the original Flame that came out ran on a Silicon Graphics the size of a fridge so it was massively expensive equipment and that was 3D you know, so it was that niche, it didn't run on any pc the software. Shortly after that Max started coming out on PC, or 3D Studio started coming out on PCs and some better software started coming out on the Apple Mac, and eventually, that's what killed these supercomputers, because you could get a PC for a fraction of the price that could do something very similar and then the software prices luckily started coming down as well. So that's, that's there background, you know when they started it and it was pretty much them and then the second company that really featured was one of Hilton Treve's companies and he had a few. I think initially, this a long

time ago, I might be mistaken you must check with Hilton, but I think it was called Digital Directions, which was way before BlackGinger and any of those companies so Hilton's also been it for forever, so literally since when I started he was already going you know doing stuff, but that was sort of the two companies. By the time I joined which was in 1993 I believe, towards the end of the year, at that stage they just split off, some of the main animators that used to work at the House Next Door decided they were going to do there own thing, and three of them they started The Works, when then eventually was bought out later and now doesn't exist anymore. That was sort of the initial split, there was Hilton and what he did and there was Video Lab, they eventually split off and The Works came out of that. That's all at the time that I got into the industry.

Can you remember the names of any of the people that started The Works?

That would be, I know the engineer was Reg Nancekivell, I'm trying to think it's not people I deal with often, they've all sort of gone there ways. There was, was it, Paul Hong, I'm trying to think, no it was Gavin Hong was one of the 3D artists, it's not people I've ever worked with again or since you know. What was quite interesting at that time also, was there was not a lot of cross-pollination, everyone was sort of very, because the competition was so little it was very fierce, so you know they didn't, the animators didn't really mix, if you worked with company one you didn't mix with company two. They were the enemy, and it wasn't because of the animators it was just the way it was, you know, it's like they didn't, you know, and later on that started becoming better, but a lot of, not so much the animators, but the head the guys that headed those divisions or those companies didn't see eye to eye or that's the feeling that I've always got and there wasn't a lot of mixing going on. So it was literally us versus them. Just to give you some names from Video Lab at that stage, so basically when I started I just went with my artist's portfolio and a keen interest and they literally had to train me you know on the job and the first time I spoke to someone they were like we're in the middle of a really big project we can't speak to you now, there's no positions you now, but call us back in a week when we're done and we'll have a chat, which I did, not expecting much, because for me at that stage that was the place to work, that was where they were doing the nice stuff. Initially, a lot of the operators actually came from abroad to train the guys, so there was still some, they were well trained in the software. So really they saw the importance of injecting that bit of knowledge into the local market, and the software then was French, the 3D software, a program called TDI which is one of the predecessors of Maya. So I was like one day I'll work there, but like I say when I started looking I was like well there's no other place so let's try this and I was lucky. I got a chance, it turns out one of the animators at that stage had decided that she wanted to become a producer and that's when the opening became available. So it was literally that small, at that stage there were only two animators in that crowd at the House Next Door. The one is Leigh Rens, later on he worked with Hilton and then he moved on to Hollywood where he's worked for several companies and he's one of the lecturers on Animation Mentor now, and then the producer, or the animator who moved into production was Ancilla, at that stage it was Berry, then she got married, no she was Ancilla Lie, but now she's Ancilla Berry, and she's still with the group after all these years now, which is now the Refinery. So Ancilla is still a producer at Refinery today. So ja, for two years after Leigh went to L.A, in a

way 3D was pretty much and then a few, there was always people that came and went. Guys came and in and some of them went overseas and did very well, actually everyone sort of did really well and the interesting thing is most of the industry started at Video Lab and then split off. So a lot of the companies the guys worked there at some point, got there training and then moved on and started their own companies, so you know you keep on running into the same people, because you know it's all people that you worked with at the video lab. So ja, in the beginning I mean the work was also very different, typical 3D work you did then was logos and shampoo commercials, it wasn't you know, character work wasn't really feasible yet. A lot of the software wasn't even powerful enough to really do it. You know you really need extra software, in house stuff, you know like Industrial Light and Magic had in those days to even, and Pixar for that matter, to do your own stuff, but the predecessors to Maya wasn't very character friendly, they were good at everything else, but you couldn't really do character animation it was too slow. Only when Maya came out did it start becoming an option really to start pursuing character work.

Can you remember any of the early jobs that you worked on when you were at the House Next Door?

Ja, a lot of the stuff had to... the production houses in the area all fed each other and that was the idea, Video Lab was a bit of a facility, other than doing graphics through the House Next Door... people could just go and edit or go and grade their work, go and do the audio for their commercial and you know all of that, so a lot of work came from literally across the road from Orchestra Blue Post Production. So it usually came through a post-production house which then was the direct client, and then obviously the agencies came to them, so you know, via the chain which is now also more blurred which has changed the industry quite directly. There used to be quite a direct path where the agency went to the post-production house, the post-production house went to a place like Video Lab, you know, and the work was farmed out accordingly. Now a lot of agencies do stuff in house, there's a lot of freelancers so the industry has grown and changes slightly, so a lot, and the typical commercials like the shampoo commercial and you had to do bubbles and you had to do a pack replacement, and even though it wasn't very exciting work, the nice thing about it was it really taught you 3D, because every job was different. The one job you had to track a live-action plate, and the next you had to insert a pack and you had to do realistic lighting, the next job was a particle job, and then you had to something completely different, and every now and then there would be a funny thing like a Smarties commercial that came along and that was really cool, because then you got to do a little character, but they were like there was one or two of them a year, and the rest of it was mainly the typical 3D graphics of the 90s, basic special effects, or let's rather say basic visual effects to enhance commercials or to add, you know, to add fancy logos, or do things that they just couldn't do in live action. So that was the typical kind of work you did.

Do you have any of those adverts from the 90s archived?

I do and it's very funny to look at, I've got an old history reel from, it's actually pre-Maya mostly, 99% of what's on that reel was done on Thomson Digital Image, which was the French software, and to give you

a bit of the history of where Maya comes from there was Thomson Digital Image and it was really strong at what it did and right at that point SoftImage also started coming out, but when they made the purchase they decided to go the TDI route, okay, and that's why they got the French guys in to come and train the initial guys at The House Next Door. Then they were bought out by a company called Wavefront, which was interestingly enough, they were all strong in different areas, and I think that was the predicament and I think that's where Maya came out of, because the whole interface that you see today in Maya is still TDI. Everything, the way the windows work, the way it's laid out, the NURBS modelling, all of the stuff, that's all TDI. That's where that came from. Wavefront had two products called DynaMotion and KineMotion. DynaMotion was where the dynamics came from and that was literally to do this day we use, it eventually became N-Particles, but the original particle system that they rendered in the hardware buffer that is DynaMotion pretty much. KineMotion was the kinematics system and in a way that was the basis for the character stuff that was to follow and that was really their forward and inverse kinematic system. Then they were bought out by Alias, which at that stage they had a program called Power Animator, which was by far the best out of all these other packages, or the nicest to work with, but it wasn't good at character work, you could do character animation, but it was extremely slow. You know there was no such thing as real time, even rotating, it was quite funny if you had to rotate around a 3D object, you had to do it in wireframe and then you know let it redraw with your basic shading which would then take a few seconds. So this whole real-time interface that people are used to now just didn't exist and those were on what's now considered to be supercomputers. So character animation wasn't a big, well you couldn't really do it easily back then, and then all those packages together they realised that they all have these different strengths and they need to put it together, and then about two years later Maya was released and you know there's still things that had in some of those packages that I miss that were brilliant that they dropped. Especially Power Animator had some brilliant quick things to you know ahead really fast, and a lot of that's been lost, but I guess they had to decide you know, and Maya has obviously been a great result that came out of that. So ja, I've got a very old history reel that features TDI and Power Animator and Wavefront stuff, up and to the point that I think there's one or two things in there that was done on Maya, and that would be Maya 1, and you know that's pretty much it. So I, I've got that, but like I say it's funny and if you take it, if you look at it you have to kind of watch it with that in perspective, because there was no fur, there was no hair systems, because there was no, like you know well in software that came off the shelf, so people who had those features wrote it themselves. So it definitely was a bit more difficult, so ja, it doesn't look great.

No, no I'll view it contextually, would it be possible to get a copy of that for archival purposes?

I'll send you a link, it's tiny and I've got it on YouTube somewhere just for laughs, but it's interesting, because in a way you can see what the industry was like and we were very busy, like you were literally never without work. There was a ton of stuff to do, there was always a commercial in. What I found was as a result, a lot of the South African guys were really good generalists, because you had to be able to do everything. You didn't have the luxury of specialising back then, there was only two or three guys in the country doing this and you know if the commercial came to you and they needed fire you needed to be

able to make fire and if they needed clouds you needed to be able to make clouds. The next shot you needed to be able to track live action the next shot you needed something completely different so I think that's the reason why a lot of the South African guys have done really well when they went abroad. I also went for a little while, I never wanted to kind of go and in the UK or anything, but I worked at MPC for a bit, mainly for the experience. Interestingly enough I was still working for Video Lab at that time and this opportunity came along and I said to them I really want to go and they said well as long as you come back and so I said okay that's fine I've got no problem with that I don't intend staying, but like I want to see their pipeline, I want to see how they work on you know a large project, you know cyber manage it. A lot of those things at that stage, because Video Lab started working on more feature work, and we were wondering, because you don't really know, how do they do it, how do they manage it? What do their pipelines look like? You know why? So we had all these questions, and two, two of us actually went across and the work was fantastic, at that point they'd just started on the first Harry Potter, so that's, that's a long time ago, but they were sort of mainly doing BBC documentaries and very high-end commercials and some films stuff, but that, Harry Potter was their first serious 3D feature work, and if you look at what they're doing today you'll see how they've grown, and they've become a very serious contender in feature work. So that was initially the idea, to just kind of get as much experience, and you know it's a call I made at that point I didn't want to leave. I wanted to come back and at least contribute to building the industry in South Africa, and later on I can tell you why it's been such a struggle, especially recently, because we've actually made very big strides, but there's been some blows as well, it's a bit disheartening at times you know, because a lot of people try really hard to grow the industry, but it's very difficult for several reasons.

The remainder of the interview was off the record.

Works Cited

Aartz, Lee. “Animating Transnational Capitalism”. *Journal of Intercultural Communication Research.* Vol 44, 2015, 2, (pp.93-107)

Anders, Charlie Jane. “How Pixar Changed All The Rules To Make The Good Dinosaur A Stunning Masterpiece.” *How Pixar Changed All The Rules To Make The Good Dinosaur A Stunning Masterpiece*, io9, 16 Dec. 2015, io9.gizmodo.com/how-pixar-changed-all-the-rules-to-make-the-good-dinosa-1735364564.

Annual Report 2016/2017. National Film and Video Foundation. 2017. http://www.nfvf.co.za/home/22/files/2017%20files/NFVF%202017%20AR.pdf

Ashcraft, Brian. “Some Of Anime's Most Famous Poses And Techniques.” *Kotaku*, Kotaku.com, 26 July 2017, kotaku.com/some-of-animes-most-famous-poses-and-techniques-1709259375.

Ball, Ryan. *African "Junkimation" Movie in the Can*. Animation Magazine, 2 Oct. 2003, www.animationmagazine.net/features/2_10_1_03.html.

Barrier, J. Michael. *The Animated Man: a Life of Walt Disney*. University of California Press, 2008.

Bendazzi, Giannalberto. *Cartoons: One Hundred Years of Cinema Animation*. London: Indiana University Press, 1994.

Bendazzi, Giannalberto. *Animation: A World History: Volume III: Contemporary Times*. Routledge. 2016

Bishko, Leslie. “The Uses and Abuses of Cartoon Style in Animation.” Animation Studies Online Journal, 9 Dec. 2007, journal.animationstudies.org/leslie-bishko-the-uses-and-abuses-of-cartoon-style-in-animation

Blaeser, Tanya. *A postcolonial analysis of colonial representations in Triggerfish's animated films Khumba (2013) and Adventures in Zambezia (2012).* Diss. The University of the Witwatersrand. 2017.

Box Office Report. National Film and Video Foundation. 2013. http://www.nfvf.co.za/home/22/files/Box%20Office%20Report%20%20March%202014%20(Semester%202).pdf

Brett, Teddy and Winter, Simon. “Origins of the Zimbabwe Crisis.” Helen Suzman Foundation, 30 Sept. 2009, hsf.org.za/publications/focus/issue-30-second-quarter-2003/origins-of-the-zimbabwe-crisis.

Brian, Andrew. Constructions of Cinematic Space: Spatial Practice at the Intersection of Film and Theory. Diss. MIT. 2005.

Brown, Matthew. Re: interview. Email correspondence with Author. 10 September 2018.

Broom, Deryck and Hawkins, Roger. directors. *The Lion of Judah*. Animated Family Films. 2011.

Canonici, Noverino Noemio. Tricksters and trickery in Zulu folktales. Diss. the University of Kwazulu Natal. 1995

Chetty, Kavish. “Khumba.” *Mahala*, 25 Oct. 2013, www.mahala.co.za/culture/khumba/.

Cline, Rich. “Khumba Review.” , 7 Jan. 2015, www.contactmusic.com/film/review/khumba.

Coetzee, J. M. *White Writing: on the Culture of Letters in South Africa*. Yale University Press, 1988.

Collins, Theresa. *Beyond Cartoons: An Exploration of Independent Forms of Animation,* Diss. The University of the Witwatersrand. 2002.

Co-Production Report 2014. National Film and Video Foundation. 2014. http://nfvf.co.za/home/22/files/Reports/Co-Production%20report%202014.pdf

Crafton, Donald. *Before Mickey: the Animated Film, 1898-1928*. The University of Chicago Press, 1993.

Cunningham, Phil. Personal Interview. 23 August 2018.

Darley, Andrew. “Bones of Contention: Thoughts on the Study of Animation.” *Animation: an Interdisciplinary Journal. Vol. 2 (1)*. Sage Publications, 2007. 63-76, http://journals.sagepub.com/doi/abs/10.1177/1746847706068902.

Dawes, Brent. director. *Jungle Beat: Always Take the Weather With You*. Sunrise Productions. 2003.

Dawes, Brent. director. *Jungle Beat: Lifted*. Sunrise Productions. 2015.

De Barros, Luiz. “Tube.” *Intekom*, Hayes AT Commands, home.intekom.com/intouch/archive/beyond3/html/tube.html.

De Beer, Adam. “Animating a South African identity? The case of Urbo: The Adventures of Pax Afrika (SABC 2006–2009)”. *Communicatio: South African Journal for Communication Theory and Research.* Vol 42(4) Unisa Press. 2017. 47 - 62. Print

De Beer, Adam. “Kinesic constructions: An aesthetic analysis of movement and performance in 3D animation.” Animation Studies Online Journal, vol. 4. 2014, https://journal.animationstudies.org/adam-de-beer-kinesic-constructions-an-aesthetic-analysis-of-movement-and-performance-in-3d-animation/.

Demissie, Fassil, and Andrew Apter. "An Enchanting Darkness: A New Representation of Africa." American Anthropologist 97.3 (1995): 559-66.

De Waal, Mandy. “Apartheid and Censorship: The More Things Change...” *Apartheid and Censorship*, Daily Maverick, 1 Feb. 2013, www.dailymaverick.co.za/article/2012-05-24-apartheid-and-censorship-the-more-things-change/.

De Waal, Mandy. *Fine Film-Making, Clever Marketing Set to Make Jock Top...*Daily Maverick, 11 July 2011, www.dailymaverick.co.za/article/2011-07-11-fine-filmmaking-clever-marketing-set-to-make-jock-top-dog/.

Dunn, Elizabeth. Talking Animals: A Literature Review of Anthropomorphism in Children's Books. Diss. the University of North Carolina. 2011.

Fajkusová, Andrea. “Hermína Týrlová, Pionera Del Cine Animado Checo | Radio Praga.” *Radio Prague*, 14 May 2013, www.radio.cz/es/rubrica/personalidades/hermina-tyrlova-pionera-del-cine-animado-checo.

Forrest, Stuart and Buckland, Mike. Personal Interview. 23 August 2018.

Foucault, Michel. “Of Other Spaces: Utopias and Heterotopias” *Architecture / Mouvement / Continuite, Mar.* 1967, pp. 1 - 9

Frierson, Michael. Clay Animation: American Highlights 1908 to the Present. New York: Twayne Publishers, 1994.

Furniss, Maureen. *Animation: the Global History*. Thames & Hudson, 2017.

Furniss, Maureen. *Art in Motion: Animation Aesthetics*. John Libbey Publishing, 2014.

Goodman, Marian. *William Kentridge - Biography*, Marian Goodman Gallery, 2019, www.mariangoodman.com/artists/william-kentridge/biography.

Greaves, Nick, and Rod Clement. *When Lion Could Fly: and Other Tales from Africa*. David Bateman, 2007.

Gurevitch, Leon. “From Edison to Pixar: The Spectacular Screen and the Attention Economy from Celluloid to CG.” *Continuum*, vol. 29, no. 3, 2015, pp. 445–465

Hall, Stuart, Held, David, Hubert, Don, and Thompson, Kenneth. eds. *Modernity an Introduction to Modern Societies.* Massachusetts: Blackwell, 1994.

Harth, Amy E. "Representations of Africa in the Western News Media: Reinforcing Myths and Stereotypes." Illinoisstate.edu. Pol.illinoisstate.edu, 2012..

Harvey, Dennis. *Review of The Legend of the Sky Kingdom*. Variety, 9 Sept. 2003, variety.com/2003/film/reviews/the-legend-of-the-sky-kingdom-1200539451/.

Hawkins, Roger, director. *The Legend of the Sky Kingdom. Sunrise Productions. 2003*.

Haycock, Andrew. *South African stop-motion animation from 1980-2005*. Diss. the University of the Witswatersrand. 2010.

Haynes, Jonathan. *Nigerian Video Films*. Ohio University Center for International Studies, 2000.

Herhuth, Eric. *Pixar and the Aesthetic Imagination Animation, Storytelling, and Digital Culture*. University of California Press, 2017.

Heigan, Martin. Re: Interview. Email correspondence with Author. 23 September 2018.

Holman, Bruce. *Puppet Animation in the Cinema: History and Technique*. A.S. Barnes, 1975.

Horrocks, Jenny. “The Legend of the Sky Kingdom - BBC Sounds.” *ArtBeat*, BBC, 23 Nov. 2003, www.bbc.co.uk/sounds/play/p03m09zj

Jamal, Ashraf. Norman Catherine and the art of terror. The University of Pretoria. 2001.

Jardim, Tim. Animals as character: anthropomorphism as personality in animation. Diss. the University of the Witswatersrand. 2014.

Jiří Trnka, Puppet Master, Harvard Film Archive, 20 Nov. 2018, library.harvard.edu/film/films/2018sepnov/trnka.html.

Joffe, A. and Newton, M. *The Creative Industries in South Africa*. *Sector Studies Report.* Human Sciences Research Council, University of Cape Town Research Consortium. 2007

Jones, Nate. “Audrey Hepburn Was the Inspiration for Inside Out's Joy.” *Vulture*, Vulture, 12 Aug. 2015, www.vulture.com/2015/08/audrey-hepburn-was-inspiration-for-inside-out.html.

Kangong, Roland. *3D animation as a medium of cultural representation and education : a case study of Magic Cellar part 1*. Diss. the University of the Witwatersrand. 2013.

Kermeliotis, Teo. “'Zambezia': 3D Animation Puts South Africa Film in the Picture.” *CNN*, Cable News Network, 26 July 2012, edition.cnn.com/2012/07/26/showbiz/zambezia-animation-south-africa/index.html.

Kowalik, Natalie and Meers, Philippe. "South African Post-Apartheid Film Policy: Shifting Discourses on Film, National Identity and Cultural/Creative Industries" *Reconceptualising Film Policies.* Ed. Nolwenn Mingant and Cecilia Tirtaine. Routledge, 2017.

Kunene, Daniel P. “BOOK REVIEW: Michael Chapman. SOUTHERN AFRICAN LITERATURES.” *Research in African Literatures*, vol. 37, no. 1, 2006, pp. 135–137., doi:10.2979/ral.2006.37.1.135.

Lasseter, John. *Principles of Traditional Animation Applied to 3D Computer Animation.* Siggraph. 1987.

Lodge, Guy. “Film Review: Khumba.” *Variety*, Variety, 20 June 2015, variety.com/2013/film/reviews/khumba-review-1200927279/.

Mabunda, Sizeka. *Strategy for the South African Animation Industry*. ASA. 2017.

Maltin, Leonard. *Of Mice and Magic: A History of American Animated Cartoons.* New American Library, 1987.

Manovich, Lev. *The language of New Media.* Massachusetts. MIT Press, 2001.

Mbogo, F. K. *Creative performance for education: case study on Takalani Sesame*. Diss. the University of the Witwatersrand

McDowall and special correspondent in Harare, Angus. “Zimbabwe: Death Toll Rises in Robert Mugabe's Reign of Terror before Election.” *The Telegraph*, Telegraph Media Group, 21 June 2008, www.telegraph.co.uk/news/worldnews/africaandindianocean/zimbabwe/2170138/Zimbabwe-Death-toll-rises-in-Robert-Mugabes-reign-of-terror-before-election.html.

Mittell, Jason. *Television and American Culture*. Oxford University Press, 2010.

Moll, Ian. “The Paradox of ‘African Psychology.’” *WIReDSpace Home*, Wits, wiredspace.wits.ac.za/bitstream/handle/10539/4481/Paradox African Psychology pdf2.txt?sequence=1&isAllowed=y.

Patel, Bharat. *Freedom of Literary Expression and Censorship in Zimbabwe*. Diss. Michigan State University, 1997.

Price, David A. *The Pixar Touch: the Making of a Company*. Vintage Books, 2009.

Rankin, Elizabeth. *Images in Metal*. Witwatersrand University Press, 1994.

Rwafa, Urther. “The Fantastic Subversion of Censorship in the Film The Legend of the Sky Kingdom.” *Latin American Report*, vol. 28, no. 1, Jan. 2012, pp. 288–297.

Saho. “National Party (NP).” *South African History Online*, 10 Aug. 2017, www.sahistory.org.za/topic/national-party-np.

Schaffer, Bill. “Moved By Animation – Animation: Genre and Authorship by Paul Wells.” *Senses of Cinema*, 15 Dec. 2010, sensesofcinema.com/2002/book-reviews/animation_wells/.

Schoultz, Chris. director. *Once Upon a Stable*. Sunrise Productions. 2004.

Semege, Mahoro. Cultural specificity and cinematic narration. Diss. the University of the Witswatersrand. 2015.

Shapurjee, Shanaz. *A historical enquiry into the animation unit, situated within the South African Broadcasting Corporation (SABC) 1976-1988.* Diss. the University of the Witswatersrand. 2009. Web. 24 Sep. 2017.

Silverman, David. *Interpreting qualitative data: methods for analysing talk, text and interaction.* London: Sage. 2001. Print.

Silverston, Anthony. Re: Triggerfish Interviews. Email correspondence with Author. 14 September 2018.

Silverston, Anthony, director. *Khumba*. Triggerfish Animation, 2013.

Sinkins, Estelle. “Animating Jock.” *News24*, 1 May 2010, www.news24.com/Archives/Witness/Animating-Jock-20150430.

Sito, Tom. *Moving Innovation: A history of computer animation*. Massachusetts: MIT Press, 2013. Print.

Snowball, J. *Monitoring & Evaluation Key to Realising South Africa's Creative Potential*. South African Cultural Observatory, www.southafricanculturalobservatory.co.za/article/monitoring-evaluation-key-to-realising-south-africa-s-creative-potential.

Soja, Edward. 1992. Postmodern Geographies. The Reassertion of Space in Critical Social Theory. London: Chatto and Windus.

South Africa’s Box Office Report. National Film and Video Foundation. 201. http://www.nfvf.co.za/home/22/files/2018/Research/Box%20Office%20Report%20Jan_Dec%202017.pdf

Steinberg, Marc. *Anime’s Media Mix: Franchising Toys and Characters in Japan*. University of Minnesota Press, 2012.

Stewart, Scott. director. *Fish Fry*. Studio 125. 2008..

Tamagan, M., Meredith, Brittany et al. A Case Study of the Takalani Sesame Program in South Africa. 2010.

“The Legend of the Sky Kingdom, Directed by Roger Hawkins | Film Review.” *Time Out London*, Time Out, 2003, www.timeout.com/london/film/the-legend-of-the-sky-kingdom.

Thomas, Frank, and Ollie Johnston. *The Illusion of Life: Disney Animation*. Hyperion, 1995.

Thornley, Wayne. director. *Adventures in Zambezia*. Triggerfish Animation. 2012.

Thornley, Wayne. director. *Life at the Pond: The Rise and Fall of Tony the Frog*. Ambient Animation. 2007.

Treves, Hilton. Personal Interview. 13 September 2018.

Vacek, David. “Review of the Legend of The Sky Kingdom.” *Film Walrus Reviews*, 1 Jan. 1970, www.filmwalrus.com/2009/02/review-of-legend-of-sky-kingdom.html.

Vinton, Will and Gardiner, Bob. directors. *Closed Mondays*. 1974.

Vinton, Will. director. *Martin the Cobbler*. Billy Budd Films. 1976.

Vinton, Will. director. *Rip Van Winkle*. Billy Budd Films. 1978.

Vinton, Will. director. *The Little Prince*. Billy Budd Films. 1979.

Wells, Paul. Understanding Animation. Routledge, 2015.

Wells, Paul, and Hardstaff, Johnny. *Re-Imagining Animation: The Changing Face of the Moving Image.* Switzerland: AVA Publishing, 2008. Print.

Wilson, Sam, director. *Munki and Trunk: The Hiccup Line. Sunrise Productions. 2016*

Wittenberg, Hermann. “Animated Animals: Allegories of Transformation in Khumba.” Indigenous Creatures, Native Knowledges, and the Arts: Animal Studies in Modern Worlds (pp.139-159)

Wittenberg, Hermann. *Spatial Theory and J.M. Coetzee’s “Foe”* Diss. the University of the Western Cape. 1995.

Wright, Jean Ann. *Animation Writing and Development: From Script Development to Pitch*. Burlington: Focal Press, 2005.