



Corrie Francis Parks

Introduction

The Experimental Frame of Mind

Dirty Fingers in the Digital World

Why These Techniques?

Why This Book?

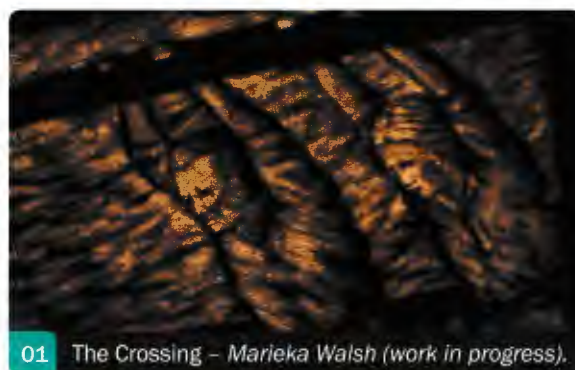
What Is in This Book?

Dirty Fingers in the Digital World

A word I have discovered in writing this book is "haptic." It might be my new favorite word. It means "of or relating to the sense of touch." This describes so well what is happening in animation right now. Artists across all mediums are returning to physical materials as the starting point for their work, boldly employing new technologies to traditionally hand-crafted methods of animating. Not only are viewers fascinated by the artistry of these techniques, but animators also value the haptic experience of working directly with the materials.

This book deals specifically with stopmotion animation techniques created with the haptic materials of sand, clay, and paint. We are about to make a mess, so expect to get dirty! This method of animating is done directly under the camera; every frame is created, shot, and then destroyed in the creation of the next frame. **01**

Working this way requires confidence, intuition, and stamina. Even with the full benefits of digital technology, there is no easy way to harness the physical properties of sand, paint, and clay – the skilled brushwork of a painter, the sculptural eye of a clay animator, the nuanced manipulation of light by a sand animator are still necessary to push through the hours under the camera.



01 The Crossing – Marieka Walsh (work in progress).

What digital technology has done for under-the-camera animation is to facilitate bolder risk-taking by the creators. Gone are the days when animators would shoot a scene and send a reel of film off to the lab with fingers crossed. My first several films were made on 16mm and I remember nervously threading my footage through the projector, wondering if the days I spent in the camera room had produced anything useable. Now, with real-time feedback from digital cameras, I know immediately if a shot is not working and often have a chance to fix it before it is entirely lost. **02**

Additionally, it seems like anything and everything can be animated. I've seen works animated on laser-burnt toast and a series of popping balloons. An entire beach might be a set for sand animation, or a bunch of scientists can move atoms to create the smallest animated character in the world. **03**

In many films, the novelty of the technique trumps all, intended to surprise and dazzle an audience, gathering as many views as possible regardless of the content. Audiences are fascinated by the artistic process, and a work that involves moving individual grains of sand or shaping wet paint frame-by-frame holds infinitely more wonder than pushing buttons on a computer. (Anyone who has made a CG film knows that just as much time and artistry goes into a well-crafted digital image as any material-based animation. Unfortunately, public perception still sees CG as a shortcut to the time-consuming techniques. To overcome this misperception, many computer-based animators are striving to reveal the physical and artistic components that go into their work as well.) The commercial demand for animation that looks "new and different" signifies that the experimental process has become an essential part of a successful animated film. **04**

Ultimately, the best works are those that use an innovative approach to production, and also relate to the message or emotional tone the film is trying to communicate. Then the audience is moved emotionally, dazzled visually, and the message, whether commercial or artistic, becomes memorable. The



02 The Ballad of Holland Island House (detail) - Lynn Tomlinson - 2014.



03 Bottle - Kirsten Lepore - 2010.



04 When I Was a Child - Maryam Kashkoolinia - 2014.

animations that will be shown generation after generation are those that marry innovative animation techniques with meaningful content.

In order to achieve this harmonious marriage of content and style, animators need to have an *experimental frame of mind*. "Experimental" is a tricky term when applied to animation. Some scholars and artists only apply the term to abstract, non-narrative films. Others use the term more broadly, applying it to animation that uses unusual or innovative production processes, regardless of narrative content. **05**

For the purpose of this book, I prefer Jules Engel's definition:

Experimental Animation is a personal vision – a concrete record of an artist's discovery of himself.¹

This removes the emphasis from technique and content and places it on the artist and his or her journey of self-expression. As with every field, those people with bold and often unconventional approaches to animation become catalysts for the slow-moving commercial industry.

Under this broad umbrella, a narrative-based paint-on-glass film, like Patrick Jenkins's *Labyrinth*, **06** and an abstract visual symphony, like Joan Gratz's *Night Weaver*, **07** can both contribute to the conversation that is changing the animation landscape. The overarching creative problem that every artist encounters in each new work is how to express their personal vision. The solution to this problem will come from applying creative thought at every stage of animation production. It may require building a special camera rig, like the one Clive Walley constructed for his abstract films. It may require finding a new material to work with, like the Ansorges did when they started working with sand, or it may require combining techniques, like Lynn Smith did with paper cut-outs and water-soluble crayons. **08 09**

You can bring the experimental frame of mind to your narrative development, sound design, even the way you market and exhibit your finished work. Materials are just one aspect of the solution, and while this book will cover the production methods



05 Miramare – Michaela Müller – 2009.



06 Labyrinth – Patrick Jenkins – 2008.



07 Night Weaver – Joan Gratz – 2015.

unique to sand, paint, and clay, I hope it will also be the starting point for finding new avenues of self-expression through animation.

Why These Techniques?

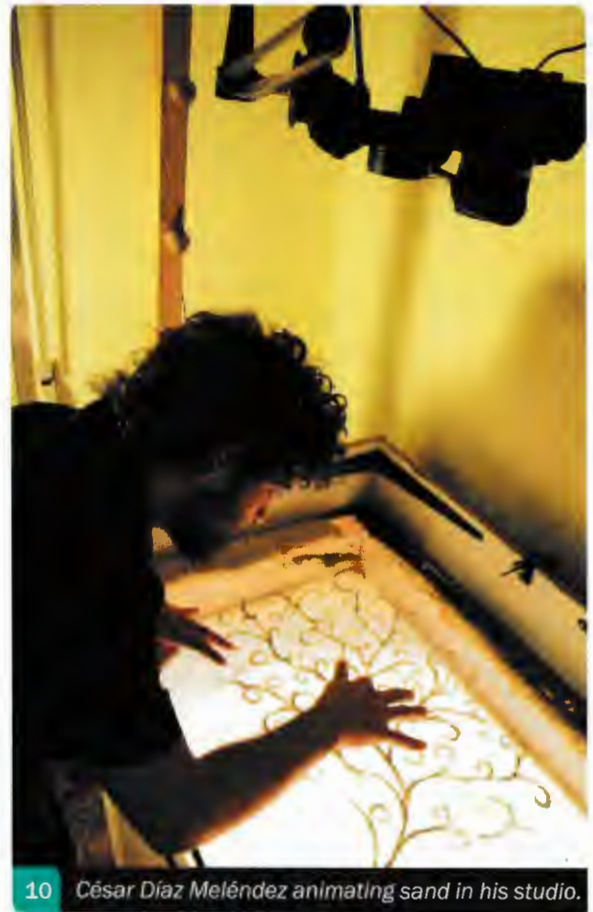
Out of the myriad of approaches to experimental animation, why are we focusing on sand, paint, and clay in this book? Their similarities begin with the very nature of the materials. Sand, paint, and clay are materials that have both fluidity and dimension – working with them is like drawing and sculpting simultaneously. Because of their similar physical qualities, a similar working method applies to all three. These materials are animated under the camera, usually on a glass surface. **10** The animator creates one frame by shaping and drawing with the material, records the image with the camera, and then reshapes the materials to make the next frame. Each frame builds upon the one before and at the end of the process there is nothing left except the recorded images. There are no second chances with this type of stopmotion. Everything must be done start to finish, with no way to go back and correct a mistake once the frame has been destroyed. The added difficulty is that the fluidity of these materials make them notoriously difficult to control under the camera.



08 *Fantasmatic* – Nag and Gisèle Ansorge – 1969.
Courtesy of ASIFA Switzerland.



09 Lynn Smith combines paper cut-outs and drawing under the camera in her film *Pearl's Diner*. (*Pearl's Diner* – Lynn Smith – 1992.)



10 César Díaz Meléndez animating sand in his studio.

If the thought of this makes your heart palpitate and palms sweat, you are not alone. Under-the-camera animation is a high-consequence art form and not for the faint of heart! It is a bold choice that comes from an explorative approach to filmmaking. The benefit of working under the camera is the opportunity for a spontaneous adventure. Accidents happen, which can lead to cinematic disasters or great visual discoveries. No matter what type of animation you ultimately choose, you will have many more opportunities to expand your avenues of artistic expression if you approach your art fearlessly! **11**

Animators now have a host of new digital tools, which will enhance their practice. Technology has expanded the possibilities of working with these volatile materials. While under-the-camera animation still requires meticulous planning and execution, there is more maneuverability thanks to real-time feedback, digital capture, live-view shooting and post-production magic. What was once the realm of a few fearless pioneers has now become accessible for any animator with a sense of adventure.

Why This Book?

I know these things because I work in this world of fluid frames. I started my animation career shooting on 16mm film and bootstrapped my way through the transition to digital production. I also began animating as a traditional character animator drawing on paper. As my artistic goals changed, I began to work under the camera, eager for that physical connection with the material. I first discovered paint-on-glass animation, combining it with drawing on paper in my film *Ash Sunday* (2001). **12**

Working in the immediacy of the moment was thrilling and stimulating. For my next film, *Tracks* (2003), I tackled sand, but with a particular artistic goal – color. Without digital tools, I had to figure out a way to add color while I was shooting. I discovered theater lighting gels could be cut and taped together into brilliant background scenery that kept the purity of the light coming into the camera.

13 14

For me, the problem-solving is a large part of my attraction to under-the-camera animation. Each film requires a period of research and the opportunity to create something never before seen. That is what keeps me interested – a chance to develop an experimental frame of mind. Both the previous films were shot on 16mm film, which presented a host of challenges.

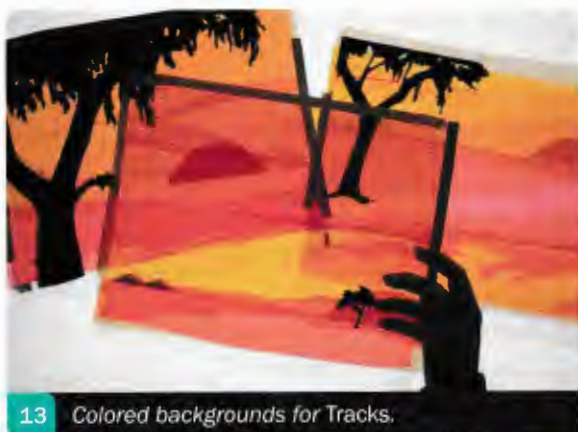
Once I had fully transitioned to a digital workflow, those challenges were replaced with the new challenge of defining a hybrid hand-crafted aesthetic. Though I work primarily with



11 Sheila Sofian animating *Truth Has Fallen* (*Truth Has Fallen* – Sheila M. Sofian – 2013).



12 My first paint-on-glass film, *Ash Sunday* (*Ash Sunday* – Corrie Francis Parks – 2001).



13 Colored backgrounds for Tracks.



14 Tracks – Corrie Francis Parks – 2003.



15 A Tangled Tale – Corrie Francis Parks – 2013.



16 Animating sandy fish.

sand, the experimental frame of mind has led me to animating paint, cut-outs, objects, drawings and computer-generated effects, as well as a host of other animation techniques. **15**

The opportunity to develop fluid frame animation extends beyond just my own personal process. The artists featured in this book approach their projects with that same experimental frame of mind. My hope is that collecting their discoveries and methods alongside my own will further define and expand the way animation is created. Anything is possible; it is just a matter of how. **16**

What Is in This Book?

This book will give you the foundation to achieve that “how.” Section I will deal with production principles that apply to all these fluid frame techniques. You will find practical steps for developing an idea into a film, setting up your studio for under-the-camera animation, and some general animation techniques that apply to all types of fluid frame animation. Section II will delve into the specifics of sand, paint, and clay, including how to choose and work with your materials and how to transition from the physical process of creating frames to a digital workflow to enhance your animation. Anyone can jump right in and create animation with the introductory exercises – they require minimal equipment and an adventurous attitude. The more advanced compositing exercises do assume a basic familiarity with Adobe After Effects. If you need to brush up on your skills I would recommend finding a good introductory book or online tutorials that will get you comfortable with the After Effects interface and workflow. I also recommend reading through the digital methods for each material, as each chapter builds on the previous. For example, even if you don’t plan to animate with sand, many of the basic compositing methods explained in that chapter also apply to paint-on-glass or clay painting.

This book also provides a historical context for inspiration and theoretical considerations for finding your best method of self-expression. These fluid methods of animating are most often relegated to a side note in history books and production manuals. Knowing the history and current

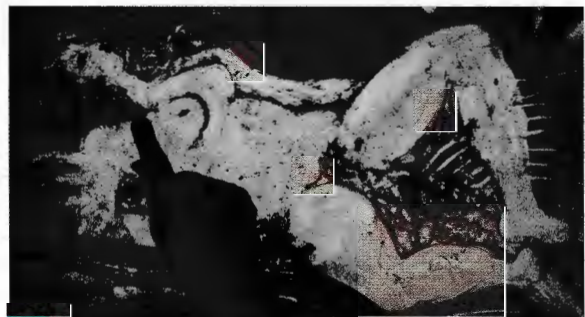
state of the art form is not only a source of inspiration, but also a method for learning. Many of the films mentioned in this book are readily available. Go watch them and ask yourself the question: "How did they do that?" **17**

If you are new to filmmaking, this will take you through the entire process of creating a film, from concept to post-production and sending your film out to the world. For veteran animators, you will find mind-expanding creative exercises and a new visual language to apply to your experience. Scattered throughout are interviews and words of wisdom from some of the early practitioners, as well as practical tips from artists who are currently pushing the boundaries in these experimental mediums. I've interviewed over 20 animators working in these techniques; every one has a different approach to their work, and you will too. All I can do is get you started with the right equipment, materials, and some good advice. **18**

There is great pressure in the film industry to be original, but originality always comes as a side effect of pursuing some other goal. Your starting point may be a conceptual idea, a narrative thread or an investigation into material properties, but it should always begin in authentic artistic expression. Caroline Leaf, who teaches animation workshops all over the world, has this observation,

Original expression comes sort of naturally. I tell [students] to copy me, to look around and if you see anything good that someone else is doing next to you, to copy that too. I think you should copy the technique and then you make it your own. What you want to say will come out and it will be different than what anyone else wants to say.²

So view this book as a tool-kit of techniques that will aid you in finding an avenue for your personal voice. Some artists may find they intuitively



17 Méandres – Florence Mialhe – 2013.



18 Carmen Torero – Aleksandra Korejwo – 1996. Courtesy of TV Studio of Animation Films Ltd. Poznan.



19 The Old Man and the Sea – Alexander Petrov – 1999. Image courtesy of Pascal Blais Studios. © 2001 Alexander Petrov.



20 Ada – Lee Whitmore – 2002.

grasp animating in sand, while others may understand the nature of clay more easily. ¹⁹ Still others may find working under the camera far too uncontrollable to suit their artistic goals, and return to other forms of animation with a broader perspective. Wherever you fall after your sojourn into the world of fluid frames, developing an experimental frame of mind will ultimately lead to your most interesting work. ²⁰

Notes

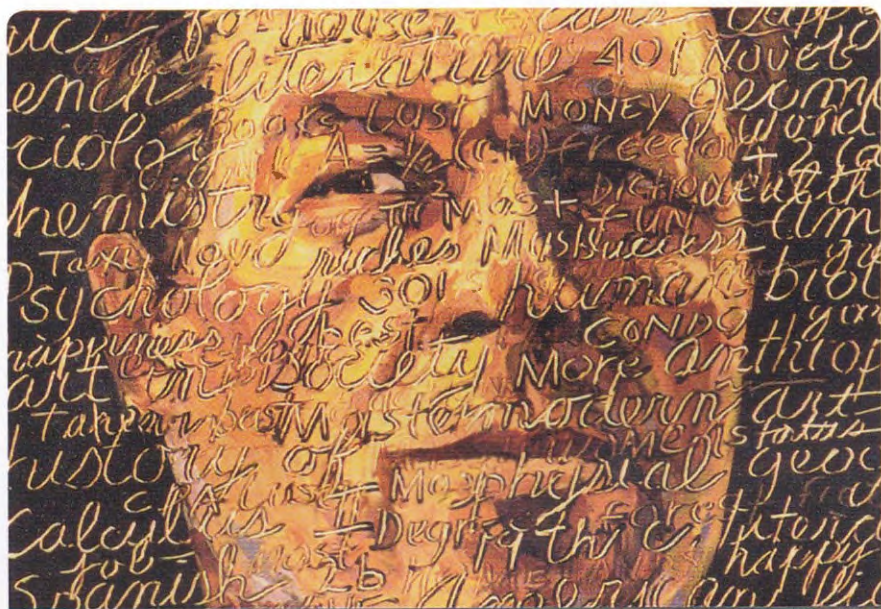
- 1 Engel, Jules. Joy of Movement. Center for Visual Music Online Library. Center for Visual Music, unpublished typescript, n.d. Date accessed: Mar. 16, 2014. <http://www.centerforvisualmusic.org/Library.html>
- 2 Leaf, Caroline. Telephone interview. Mar. 26, 2014.

the experimental frame of mind has propelled animators to discover and develop new practical methods of creating. 01 02

The Experimental Frame of Mind in the History of Animation

The first animators were necessarily experimenters, redefining the new technology of cinema to bring an unconventional visual and narrative experience to their audience. Most mainstream cinematographers in the early 1900s were concerned with recording and documenting live action. However, a few experimental filmmakers, such as Georges Méliès, and James Stuart Blackton, were manipulating the individual frames of filmstrips to create special effects. 03

Building off the traditions of the theater and vaudeville, they popularized the trickfilm genre, bringing figments of the imagination into the pseudo-reality of the cinema. By stopping the camera in the middle of a scene to create magical effects, filmmakers like Méliès and Blackton laid the foundation for further frame-by-frame manipulation. 04



01 Pro and Con – Joan Gratz and Joanna Priestley – 1992.



02 Animation from the feature documentary Seed – 2016. Courtesy of Collective Eye Films.



03 In the early days of cinema, Georges Méliès masterfully charmed audiences with camera tricks and fantastical stories. (Georges Méliès – The Mermaid – 1904; A Trip to the Moon – 1901.)



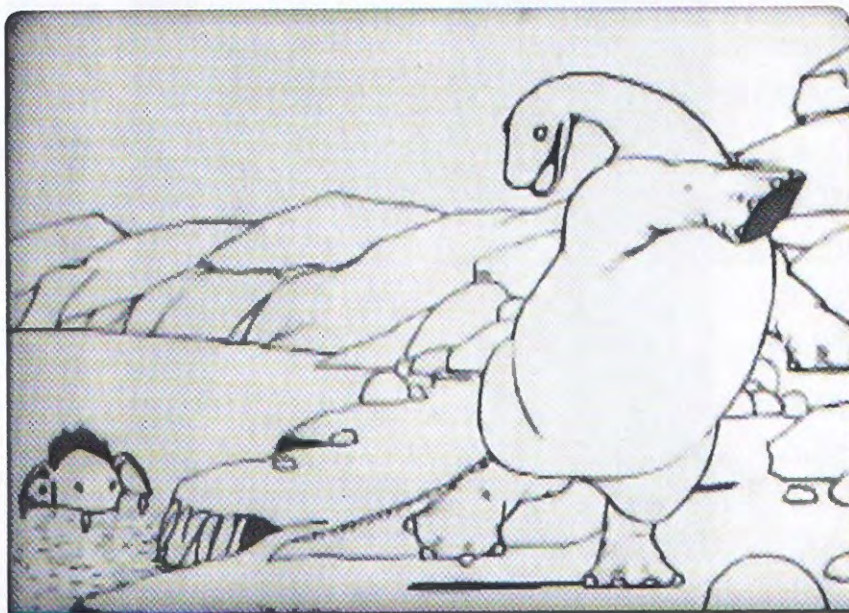
A few years later, Émile Cohl and Winsor McCay built upon the stop-frame idea by making films composed of entirely of drawings. **05**

These artists, and others of their era, were able to bring a world of fantasy to the screen because they approached cinema with an experimental frame of mind, thinking not about what it was able to do, but what they needed it to do to realize their personal vision.

As animation developed and became an industry, other experimental thinkers began to take note of its potential. Most notably, a small circle of avant-garde artists in Europe saw animation as an answer to the questions they were wrestling with in painting. With the new tool of cinema, they were able to explore creative problems that had heretofore stumped them. Viking Eggeling was searching for a meaningful system of abstract forms, which resulted in his film *Diagonal Symphony* in 1921. Between 1921 and 1925, Walter Ruttmann was working on a series of animated works he later titled *Opus I-IV*. **06**

His experiments reputedly included maneuvering sticks of plasticine under the camera, painting on small glass plates, and manipulating images with mirrors. Hans Richter was working on his abstract Rhythmus series around this time as well. **07**

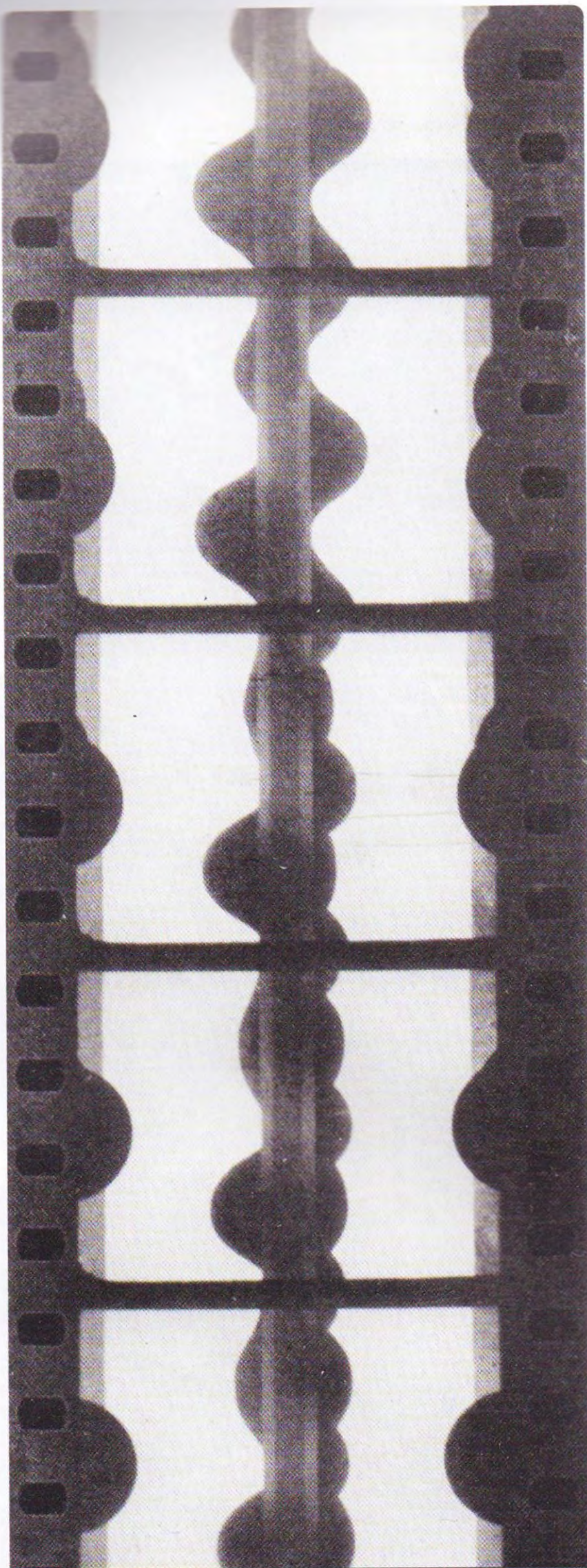
Closely associated with this group was Oskar Fischinger, who pursued his own animated explorations, inventing a wax slicing machine to create



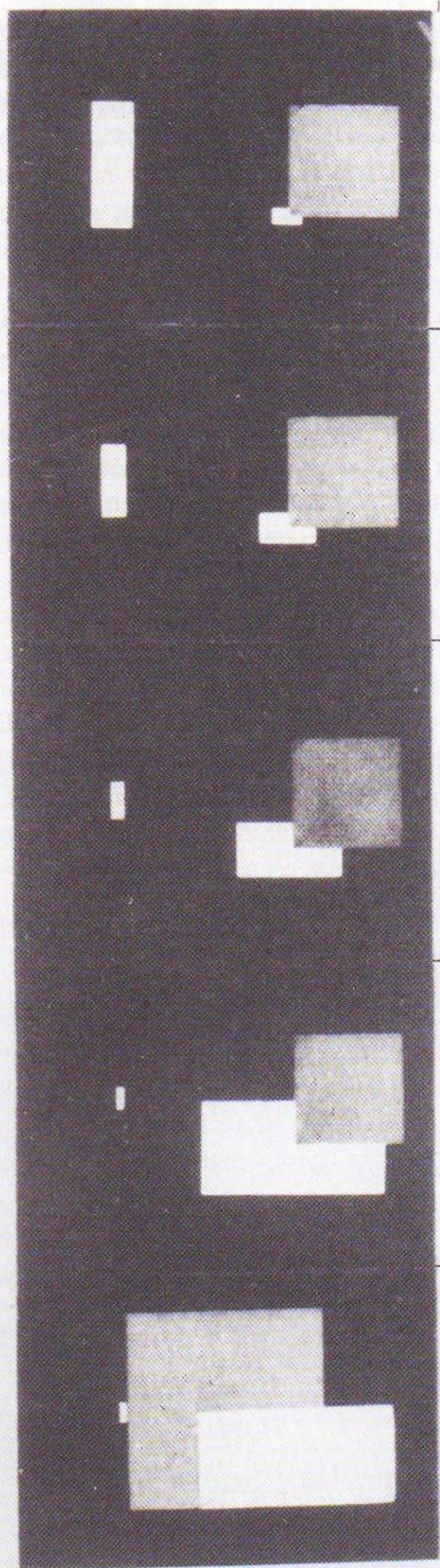
05 Winsor McCay invested his characters with an endearing emotional range. (Winsor McCay - Gertie the Dinosaur - 1914.)



04 James Stuart Blackton created sequences of chalk drawings that transformed on their own. (J. Stuart Blackton - Humorous Phases of Funny Faces - 1906.)



06 Frame sequence from *Opus III* by Walter Ruttmann – 1921–25. Courtesy of Deutsches Filminstitut, Frankfurt.



07 Sequence from *Rhythmus 21* by Hans Richter. Courtesy of Deutsches Filminstitut, Frankfurt.

abstract animation more efficiently. Fischinger was also making abstract animation commercially viable through advertisement and popular classical music. The Germany of the 1920s fostered an environment in which the experimental frame of mind could flourish, so artists gravitated toward one another, sharing ideas and innovations. One of these animators, Lotte Reiniger, remembers the period as one of great energy and collaboration:

With each film we could make new discoveries, find new problems, new possibilities, technical and artistic, we were most eager to execute. The whole field was virgin soil and we had all the joys of explorers in an unknown country. It was wonderful.¹

A project that brought several of these experimentalists together was Reiniger's feature length film, *The Adventures of Prince Achmed* (1926). Reiniger's technique of animating paper jointed paper cut-outs under the camera was revolutionary in itself, but the idea to make a feature length production based on the vision of one animator was unprecedented.

We did not belong to the [film] industry. We always had been outsiders and we always had done what we wanted to do. Our friends were artists of the same caliber who approached films in their own ways . . . So we were not afraid of the challenge.²

To help her, Reiniger gathered a small band of her avant-garde friends and put them in charge of creating animated backgrounds. **08** They built a multiplane camera in an attic in Potsdam and went to work. Bertold Bartosch and Walter Ruttmann animated abstract effects on the lower level using sand, paint, and a wax slicing machine licensed from Oskar Fischinger. Reiniger and other members of the crew animated the cut-outs on the upper levels. The resulting layers of imagery bring together the fairytale world of the *Arabian Nights* with the time period's cutting-edge abstract animation. **09**

While animation grew into a widespread form of entertainment, experimental animation found its place between the commercial cartoon industry and the world of fine art. Practicing the experimental frame of mind led artists to discover new techniques in animation to serve their specific vision. In 1933, Alexander Alexeieff and Claire Parker developed their unusual pinscreen animation for the film *Night on Bald Mountain*. They wished to capture the "finesses of tone and shading . . . that is known in engraving."³ The limitations of drawing led them to find a new way to create



08 Creating *The Adventures of Prince Achmed*. Lotte Reiniger animates cut-outs as Walter Ruttmann animates sand below while Karl Koch operates the camera above. Courtesy of Christel Strobel, Agentur fuer Primrose Film Productions / Deutsches Filminstitut, Frankfurt.

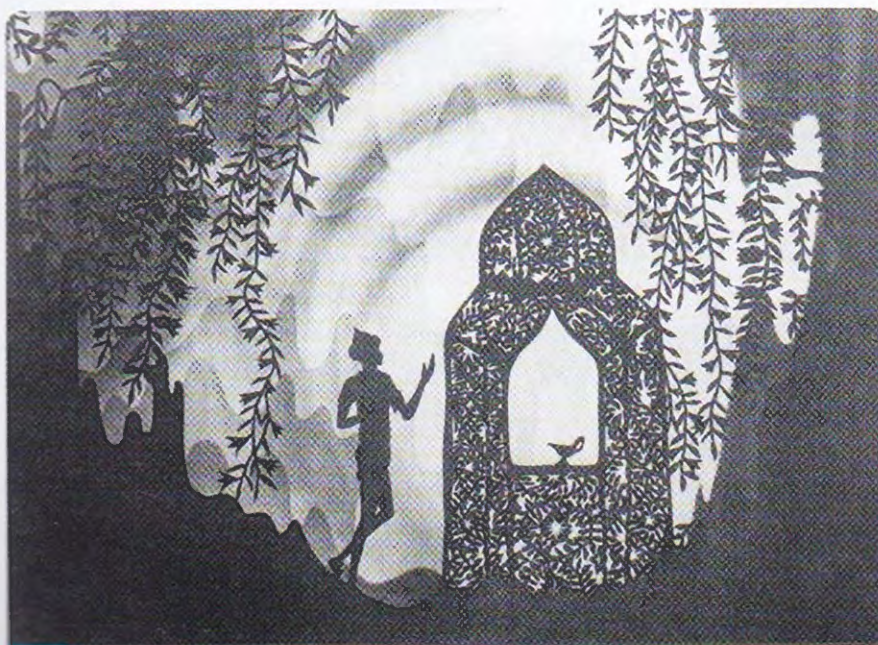
"a single picture capable of indefinite modifications."⁴ Likewise, Len Lye set out to discover new lab methods with optical printing and experimented with cameraless animation in his scratch-on-film works.⁵ Douglass Crockwell investigated progressive painting under the camera in his *Glenn Falls Sequence* (1947).

To further explore ways of creating abstract movement, Crockwell tried squeezing wet paint between sheets of glass and also developed his own wax slicing technique using a meat slicer, describing the resulting animation as "strongly anticipatory and unworldly . . . moving from uncharted point to uncharted point, yet retaining the logic of each minute transition."⁶

According to historian and filmmaker Cecile Starr, experimental filmmaking flourished in North America due to a "growing 16mm market in colleges, museums and film societies" and "the availability of grants and subsidies for experimental filmmaking."⁷ Among other grant-making entities, the Museum of Non-Objective Painting (now the Solomon R. Guggenheim Museum) supported several experimental filmmakers through film grants, including Oskar Fischinger, who had, by that time, moved to the United States. Also among the grant recipients was Norman McLaren, whose experimental practice later propelled the National Film Board of Canada (NFB) into a golden era of alternative animation. In 1960, the Annecy Festival was founded to showcase and award animation from around the world. **10**

The same year saw the establishment of the *Association Internationale du Film d'Animation / International Animated Film Association (ASIFA)* as a way to promote and protect the rights of animators and foster an international camaraderie and exchange of ideas within the medium. Not only was there a way to make films; there were places to show them and meet other animators.

In this vibrant context of creative exploration, the techniques discussed in this book, along with many others, began to appear in multiple contexts. It was as though a collective consciousness of animation was developing. In Poland, Witold Giersz broke



09 A detailed scene from *The Adventures of Prince Achmed*, dir. Lotte Reiniger – 1926. Courtesy of Christel Strobel, Agentur fuer Primrose Film Productions / Deutsches Filminstitut, Frankfurt.



10 ASIFA animators from around the world gather at the 1961 Annecy Festival. From left to right: Raymond Maillet, Ivanov-Vano, John Halas, Joy Batchelor, Pierre Barbin, and Paul Grimault. Photo courtesy of The Halas & Batchelor Collection Limited.

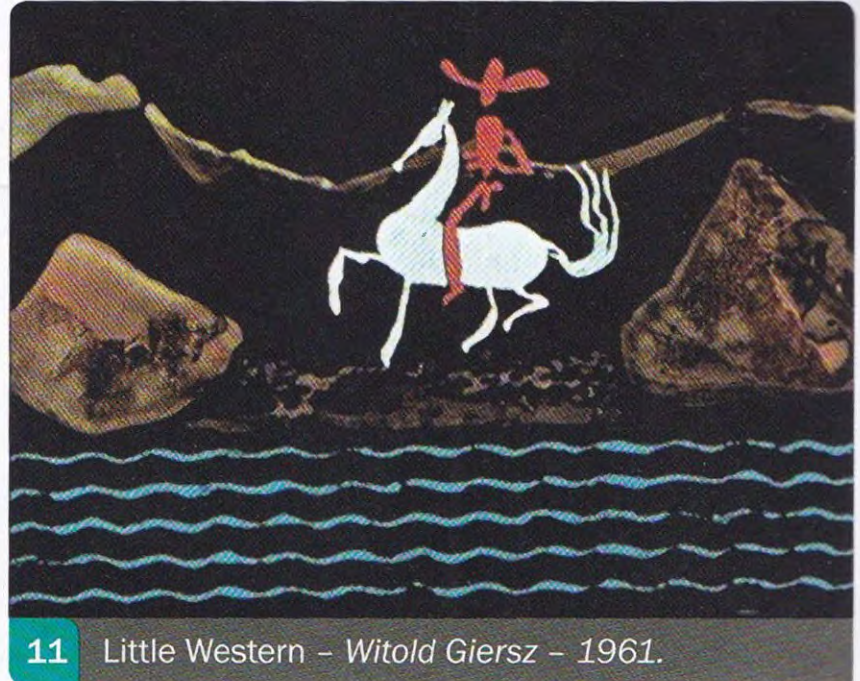
away from the conventional cartoon style of his training and created characters out of splotches of paint in *Little Western* (1960). **11** At the same time in Canada, George Dunning was developing a similar style of painted animation in *The Flying Man* (1962). In Switzerland, Nag and Gisèle Ansorge were working on their first film with sand, *Les Corbeaux* (1967), **12** while across the Atlantic, Caroline Leaf used it to tell the musical tale of *Peter and the Wolf* (1969).

These animators in search of new materials for creative expression placed sand and wet paint under the camera because it served their overarching vision. They followed their inclination and great discoveries ensued.

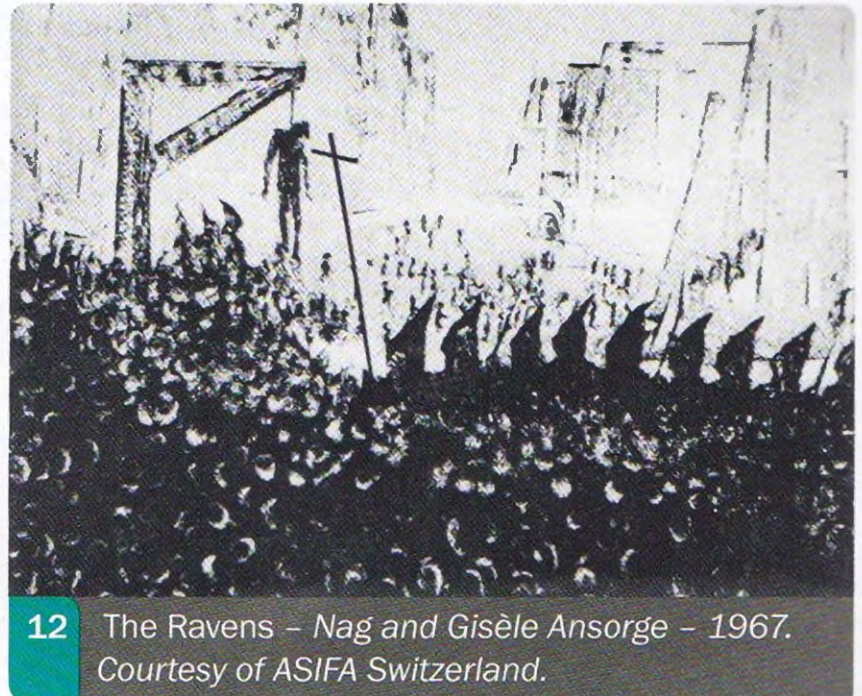
Today the experimental frame of mind flourishes again. The spread of knowledge and films via the internet creates a collegial atmosphere among the international animation community, where one artist's discoveries can become the foundation for another's experiment. Digital production takes some of the expense and inefficiencies out of the animation process, freeing up the artist to take risks with visual exploration. New avenues of funding, like crowdsourcing and private and commercial patronage, are beginning to make up for the decline of government grants in many countries. If the early pioneers were discovering the New World of animation, we are now about to blast off into the vast expanses of the uncharted universe. We are still explorers on a new frontier. It is an exciting time to be an animator! **13**

Starting the Journey

Every film, regardless of its subject or technique, will take the viewer on a journey. **14** Sometimes it is a journey through a story; sometimes the journey revolves around a concept or theme;



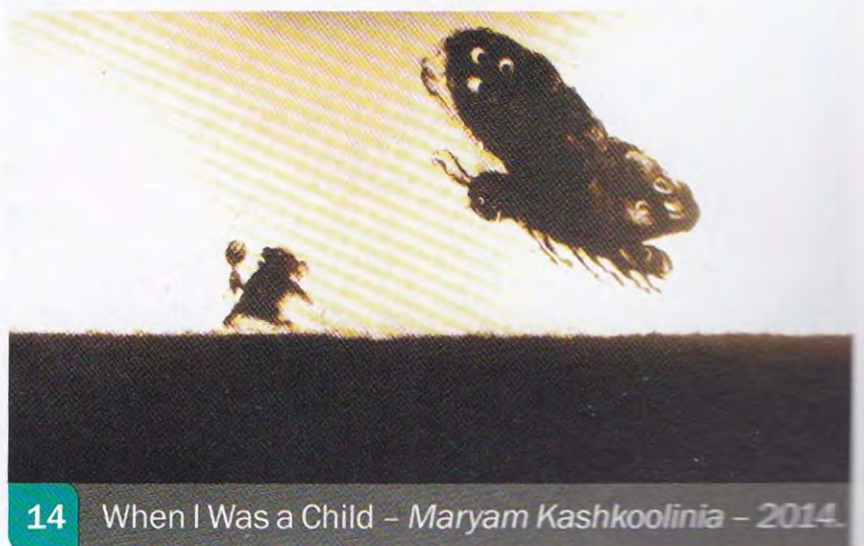
11 Little Western – Witold Giersz – 1961.



12 The Ravens – Nag and Gisèle Ansorge – 1967. Courtesy of ASIFA Switzerland.



13 A Tale of Longing – Xin Li – 2012.



14 When I Was a Child – Maryam Kashkoolinia – 2014.