

David Mattingly



THE
**DIGITAL MATTE
PAINTING**
HANDBOOK

The Digital Matte Painting Handbook





The Digital Matte Painting Handbook

David B. Mattingly



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To Cathleen, with my love.

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About the Author



David B. Mattingly lives in Hoboken, New Jersey, right across the Hudson River from New York City. He teaches matte painting at the School of Visual Arts and at Pratt Institute. He has worked on major motion pictures and TV miniseries for the last 30 years, including *The Black Hole* (1979), *Tron* (1982), *Dick Tracy* (1990), *The Stand* (1994), *I, Robot* (2004), and *A Muppets Christmas: Letters to Santa* (2008). He has contributed matte shots and special effects to hundreds of commercial projects.

David worked at Walt Disney Studios for seven years in the 1980s and became head of the matte department in 1984. He moved to New York City in the late 1980s to pursue a career as a book illustrator.

David has produced more than 1,200 covers for major publishers of science fiction and fantasy, including Baen, Bantam, DAW, Del Rey, Dell, Marvel, Omni, Playboy, Signet, and Tor. For Scholastic Inc., David painted 54 covers for K. A. Applegate's blockbuster young adult series *Animorphs* and *Everworld*. He illustrated David Weber's space epic *Honor Harrington*, a *New York Times* best-seller. A compilation of his traditionally painted artwork, *Alternate Views, Alternate Universes: The Art of David B. Mattingly* was published in 1996.

David is a two-time winner of the Magazine and Booksellers "Best Cover of the Year" award, and he is also the winner of the Association of Science Fiction Artists "Chesley" award. David's other clients have included Michael Jackson, Lucasfilm, Universal Studios, Totco Oil, Galloob Toys, R/Greenberg Associates, Click 3X, and Spontaneous Combustion.

Contents

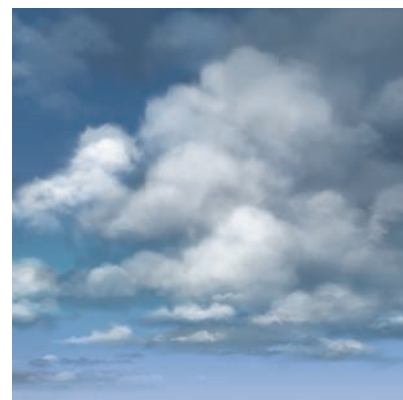
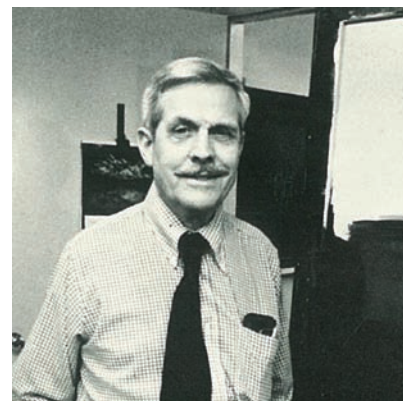
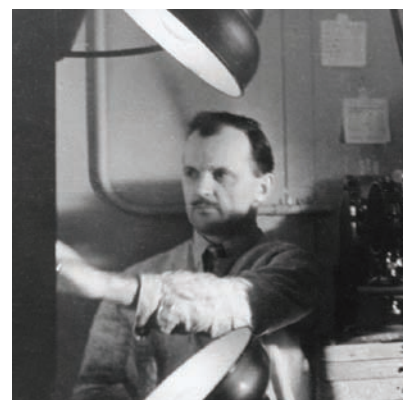
Foreword xxv
Introduction xxvii

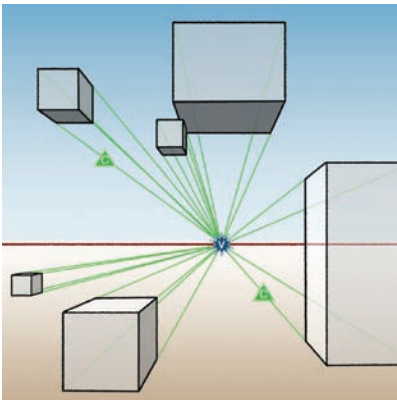
Chapter 1 What Is a Matte Painting? 1

- Matte Painting Defined 1
 - The Glass Shot 1
 - The Original-Negative Matte 2
 - The Rear-Projection Matte 3
 - Digital Matte Painting 4
- A Brief History of Matte Painting 5
 - Norman Dawn and the Invention of Matte Painting 5
- Paint vs. Pixels 6
- Peter Ellenshaw 6
- Albert Whitlock 8

Chapter 2 Photoshop Workspace, Tools, and Custom Brushes 11

- The Digitizing Tablet 11
- Setting Up Your Workspace 12
- Photoshop Panels 13
- Using Custom Brushes 17
 - Brush Tip Shape 18
 - Shape Dynamics 18
 - Transfer 19
 - Scattering 20
 - Color Dynamics 20
 - Dual Brush 21





- Working with Image-Based Brushes 21
 - Creating a Cloud Brush 22
 - Painting a Cloudscape 23
 - Save Your Brushes 24

Chapter 3 Composition and Concept 27

- Creating a Castle on a Hill 27
 - Understanding 16-bit Color 28
 - Rules of Composition 29
- Creating a Concept Sketch 33
 - Coming Up with Ideas 33
 - Getting In the Zone 33
 - 30-Minute Concept Sketch, Step By Step 34
- Assignment: Create Your Own Castle Concepts 46

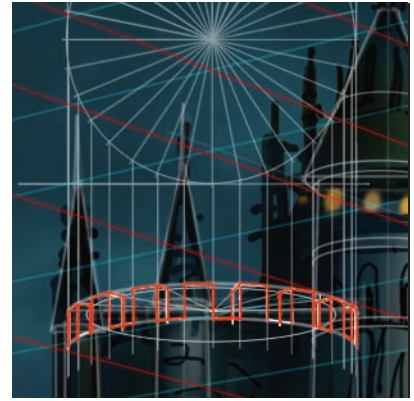
Chapter 4 Perspective Basics 49

- A Brief History of Linear Perspective 49
- The Three Types of Perspective 50
 - Atmospheric Perspective 50
 - Color Perspective 52
 - Linear Perspective 52
 - Perspective Techniques 59

Chapter 5 Perspective Drawing 75

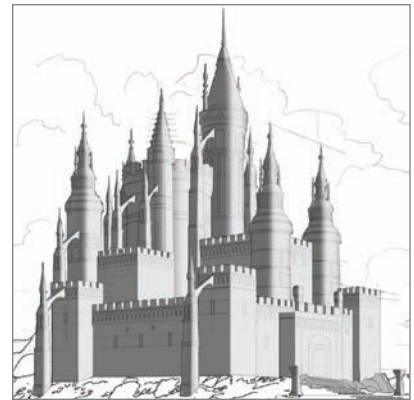
- Setting Up Your Vanishing Points 75
 - Using the Pen Tool to Set Up Lines of Convergence 76
- Drawing the Basic Shapes 77
 - The Main Structure 77
 - The Front Entrance 78

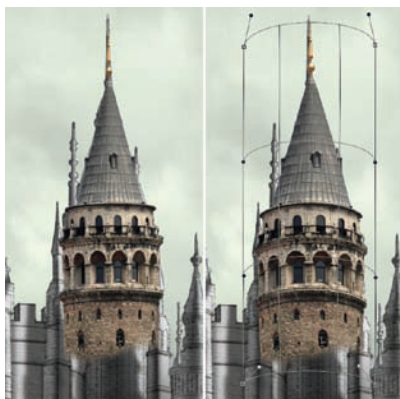
Adding Detail to the Castle 81
 Equal Divisions in the Castle Walls 81
 Mechanical Perspective vs. Eyeballing 82
 The Ellipse Bank 82
 Dividing a Round Tower 85
 Adding Fine Detail 87
 Drawing Symmetrical Towers 87
 Duplicating Identical Towers 88
 The Final Drawing 88
 Assignment 90



Chapter 6 Form 97

Finding the Light and Dark Sides 97
 Isolating the Silhouette 98
 Defining the Light Side 101
 Defining the Dark Side 102
 Adding Form to the Towers 102
 Cast Shadows 111
 Using Selections to Cast Shaped Shadows 112
 Layer Masks 114
 Cores 115
 Final Form Layer 117
 Darkening Where Two Surfaces Intersect 117
 Darkening Downward-Facing Surfaces 117
 Darkening Areas Below Projections 117
 Darkening Areas That Receive Less Reflected Light 117
 Adding the Line Drawing 119
 Assignment: Tone Your Castle Drawing 120





Chapter 7 Texturing and Color Correction 123

Blending Modes 123

The Six Categories of Blending Modes 124

Blending Modes Used in Matte Painting 125

Texturing The Castle 127

Adding Stone Texture Using Soft Light 128

Cast Shadows and Texture 133

Finding Reference Photos 133

Google and Copyright 133

Resolution Issues 134

Reference Websites 134

Levels and Curves in Color Correction 135

Anatomy of Curves and Levels 135

Common Color Corrections 136

Working with Reference Photos 140

Warping a Tower 140

Color-Correcting the Towers 141

Finishing the Towers 141

Repeating Details 145

Finishing the Castle 147

Lighting the Scene 150

Darkening the Sky 150

Darkening the Castle 150

Adding Flames 151

Creating the Sky 151

Moonlight 152

Highlighting the Clouds 153

The Background Elements 153

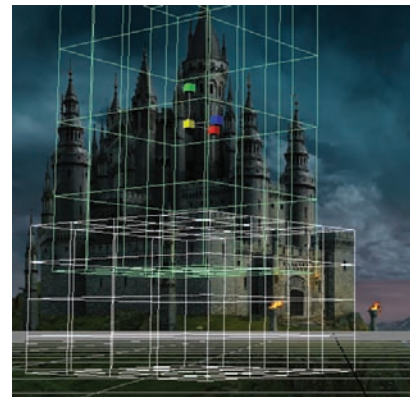
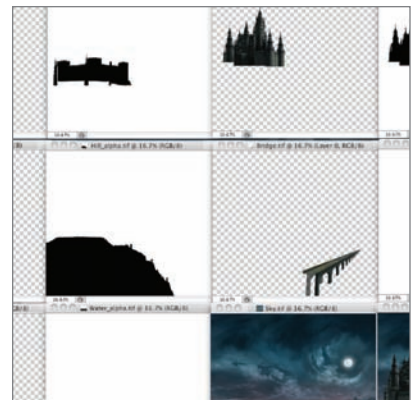
The Top Painting Layer 155

Assignment: Texture and

Finish Your Castle 155

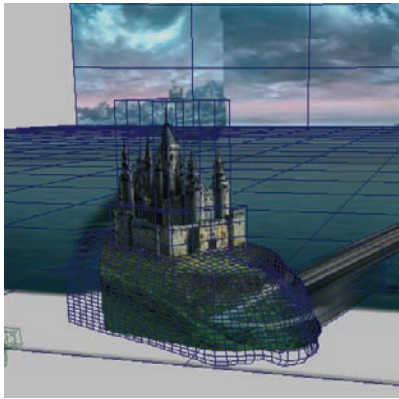
Chapter 8 Preparing Your Photoshop File for Camera Projection in Maya 157

- What is Camera Projection? 157
- Getting Started in Camera Projection 158
 - Reduce the File to Six Layers 158
 - Preparing the Color Channels 160
 - Preparing the Alpha Channels 160
 - Check the File Size 162
- Setting Up for Camera Projection 162
 - Set the Project Folder 162
 - Create a Projection Camera 163
 - Set the Rendering Parameters 164
 - Set the Film Aspect Ratio 164
 - Turn off the Default Light 165
- Adding the Image Plane 165
 - Assign the Image Plane to the projectionCam 166
 - Turn on the Resolution Gate 167
 - Image Plane Attributes 167
- Positioning the Camera Using the Reference Grid 168
- Assignment: Prepare Your Castle for Camera Projection, and Set Up the Maya File 169



Chapter 9 Building Geometry for Camera Projection in Maya 175

- Lining Up the Reference Box 175
- Sculpting the Foreground Hill 180
 - The Sculpt Geometry Tool 180
 - Component Mode 183
 - Soft Selection Mode 183
- Adding the Sky 184
 - Centering the Pivot 186
- Adding the Remaining Geometry 186
- Assignment: Build Geometry for Your Castle 187



Chapter 10 Projecting Textures in Maya 193

- Adding Materials to Geometry 193
- Setting Up the Sky Projection 194
- Introduction to the Material Editor 197
- Checking Your Projection 199
- Eighteen Steps for Defining Projection Materials 201
- Textured Preview of the Entire Scene 202
- Adding the Animated Camera 203
- Inserting Keyframes 204
- Rendering a Sequence 205
- Final Troubleshooting 206
- The Final Animation 208
- Assignment: Assign Textures and Create an Animation Using Your Own Castle 211

Chapter 11 Lighting Techniques 213

- Day-for-Night 213
- Preparing the Daytime Plate 214
 - Adding a New Sky 214
 - Adding a Mountain Range 215
 - Removing Cast Shadows 216
- Preparing the Nighttime Plate 216
 - Creating Mattes to Add Directional Lighting 217
 - Painting Into the BlueMultiply Layer Mask 220
 - Creating a Mask for the Building Windows 221
 - Creating a Warm Overlay Layer for the Street Lights 223
 - Silhouetting the Mountains 223
- Adding Life to the City 224
 - The Window Bank 224
 - Adding the Distant Lights of the City 226

- Using a Layer Mask to Edit the Lights 226
- Lighting Up the Towers 228
- Top Additions with a Paint Layer 229
- Light Flares 230
- Relighting 231
- The Night Sky 232
- Assignment: Take Your Own Plate From Day to Night 232



Chapter 12 Changing Seasons 235

- The Summertime Plate 235
 - Removing Anachronistic Details 236
 - Painting Out the Summer Tree 237
 - Replacing the Background Buildings 240
 - Replacing the Sky 242
 - Light-Wrapping the Tree 243
 - Final Details 244
- The Wintertime Plate 246
 - Adding a Winter Sky 246
 - Adding Snow 247
 - Freezing the Canal 251
 - The Winter Tree 252
 - Adding Detail With High-Contrast Mattes 254
 - Hand Painting 257
 - Final Details 258
- Bonus Section: Dusk 260
 - Adding a Multiply Layer 260
 - Adding an Overlay Layer 260
 - Adding Illuminated Windows 262
- Assignment: Take Your Own Photo From Summer to Winter 262



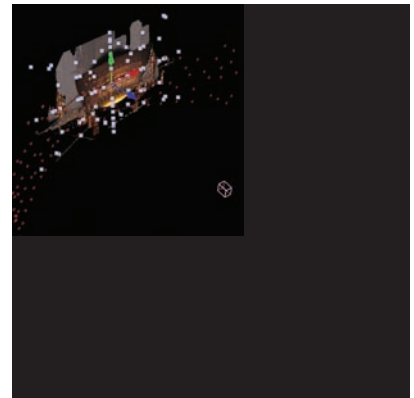
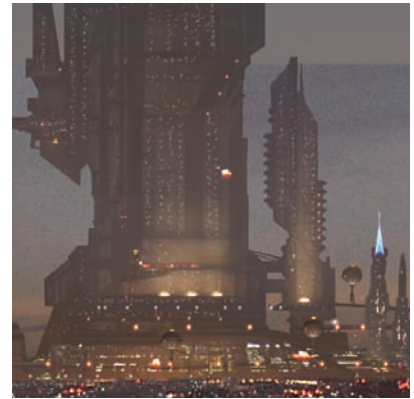


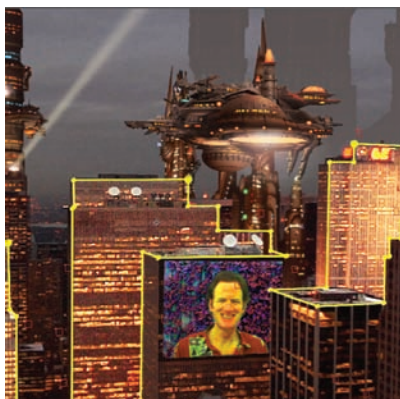
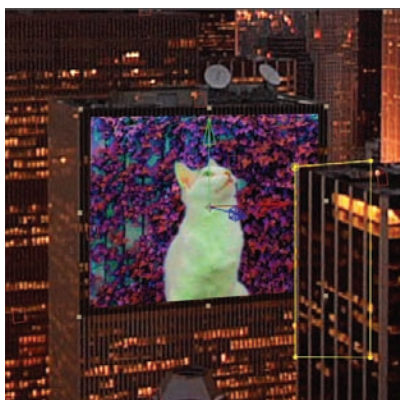
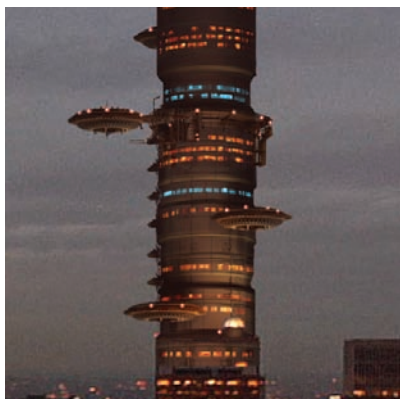
- Chapter 13 Getting Started in After Effects 265**
 - Preparing a Painting for After Effects 266
 - Getting Into After Effects 266
 - Importing the Composition 267
 - Interface Panels 267
 - Setting the Duration of the Animation 269
 - Animating the Sky 270
 - Setting Keyframes 270
 - RAM Preview 271
 - Precomposing the Summer Version 272
 - Cross-Dissolving to the Winter Version 272
 - Animating the Winter Sky 273
 - Dissolving to the Winter Dusk 273
 - Effects 273
 - Curves Effect 274
 - Hue/Saturation Effect 274
 - Adding a Snow Effect 275
 - Solids 275
 - Blending Modes 275
 - CC Snow 275
 - Varying the Lights 276
 - Masks 277
 - Moving the Smoke 278
 - Fractal Noise 278
 - Displacement Maps 278
 - Final Camera Move 280
 - Reformatting the New Comp 280
 - Scaling the Precomp 281
 - Easing Out, Easing In 282
 - The Render Queue 282
 - Render Settings 282
 - Output Module 282

- Time Remapping 283
- The Final Animation 284
- Assignment: Create an Animation Changing Summer To Winter Using Your Own Painting 285

Chapter 14 Working over a Moving Plate 287

- The Plate 288
 - Merging Frames into a Panorama 288
- The Painting 290
- Megastructures 290
 - Drawing a Selection for the Megastructure 291
 - Filling the Selection With the Gradient Tool 291
 - Adding Abstract Detail 291
 - Lights 294
 - Painting Randomized Windows With a Custom Brush 294
 - Reducing the Contrast of the Building 295
 - Extending an Existing Building 295
- Compositing the Painting over a Moving Plate 297
 - Importing the Painting 297
 - Navigating After Effects' 3D Workspace 300
 - Making the Painting 3D 302
- Positioning Layers in 3D Space 303
 - Manually Positioning Layers 304
 - Using Nulls to Position Layers 306
 - Checklist for Positioning Layers With Nulls 307
- Parenting Layers Together 308



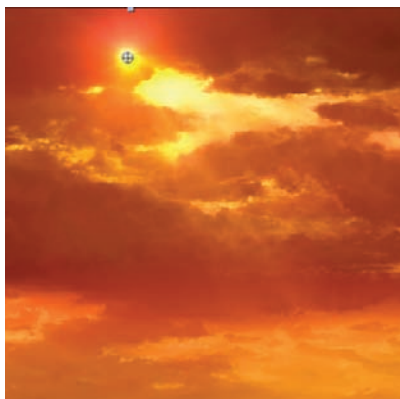


- Adding Moving Spotlights to a Building 309
 - Relocating the Anchor Point of a Layer 310
 - Animating the Motion of the Light Beam 310
 - Duplicating the Beam 310
 - Adding a Flare to the Beams 311
 - Parenting the Beams to the RoundRiser Building 311
- Adding a Video Billboard 312
 - Moving the Layer Duration Bar 312
 - Time-Remapping the Video 312
 - Adding a Black Boarder to the Billboard 313
- Preparing the Project for Animation 313
 - Breaking Up the SmallFloatingBalls Layer 313
 - Positioning the Remaining Layers 314
 - Making the Nulls “Shy” 314
 - Rotating the Layers to Minimize Lens Distortion 314
- Animating the City 316
 - Pulsing the City Flare 317
 - Reactive Lighting on the City 317
- Expressions 319
 - Using the Pick Whip to Link Attributes 320
- Film Grain 320
 - Blurring the Layer 321
 - Adding Grain 321
 - Adding Blur and Grain to All The Layers 322
- Assignment: Create Your Own City 323

Chapter 15 Using After Effects' True 3D Space 325

- The Painting 325
 - Getting Your Idea Down at Lower Resolution 326
 - Increasing the Resolution for the Final Painting 326
 - Additional Painting Techniques 327
 - The Finished Painting 332
- Importing the Painting into After Effects 332
 - Using a Null to Scale and Position Elements Together 333
- Adding a Camera to the Comp 334
 - Selecting the Camera to Display the Angle of View 334
- Turning Off Collapse Transformations 335
- Setting Up a Ground Plane Using a Solid 335
 - Rotating the Solid 335
 - Scaling the Solid 336
- Projecting a Texture onto the Ground Plane 337
 - Lining Up the Projection Layer 337
 - Adding a Light 337
 - Copying the Active Camera Position 337
 - Scaling Down and Positioning the GroundPlaneProjection Layer 337
 - Setting the Material Options 338
 - Increasing the Resolution of the Projection 338
- Positioning the Sky 339
 - Turning Off the Projection on Other Layers 340
 - Projection Plane Checklist 340





- Positioning the Other Layers 341
 - Positioning the F-grBridge Precomp 342
 - Positioning the F-grSpire Precomp 342
 - Positioning the MountainsFr Layer 343
 - Angling the TallBridge Precomp 344
 - Projecting and Painting the Longer Bridge 344
- Animating the Sky 348
 - Using the Solo Switch 350
 - Creating Light Rays 350
- Animated Lava 351
 - Adding a Fractal Noise Effect 351
 - Creating an Alpha Channel 353
 - Masking the Top of the Moving Lava 354
- Extracting Figures from Green Screen 354
 - Creating a Garbage Matte 355
 - Applying the Keylight Effect 356
- Adding the Keyed Figures to the Scene 358
 - Color Correcting the Keyed Figures 358
- The Camera Move 359
- More Details 360
- Assignment: Create Your Own Vision of Hades 360
- A Final Note 361

- Appendix About the Companion DVD 363**
 - What You'll Find on the DVD 363
 - System Requirements 363
 - Using the DVD 364
 - Troubleshooting 364
 - Customer Care 365
 - Contact the Author 365

- Index 366

Foreword

Matte painting is all about storytelling. Every good movie tells the audience something relatable—something they already know, but in a way that is new and different. To be a great matte artist is to be a great storyteller. Certainly, there may be only one or two matte shots in a film, or perhaps dozens, but each individual shot has a responsibility to move the story forward. It isn't about how beautifully the artist renders a tree or a rock or a spaceship; it's about the collaborative process of continuing an emotional response.

I was fortunate enough to get a job as an apprentice matte artist in the early 1970s at a Hollywood film studio, long before a little film called *Star Wars* began to make special (visual) effects special. It was a time when studios had understaffed matte painting departments and were frustrated that art school students weren't interested in becoming matte artists because "painting like a photograph," wasn't the work of a "true artist."



It turned out to be somewhat ironic that I was hired for *Star Wars* not because I was good, but because I was one of the few matte artists in the industry. It was a turning point in my life.

I've seen bad matte shots in great movies and great matte shots in bad movies. So, often it's difficult for matte painters to know if they're any good. Movie success isn't about how good the matte paintings are—it's a gestalt about the whole, not the parts.

The Digital Matte Painting Handbook isn't necessarily just about technique. It will also show you how to touch your viewers' collective emotions: how to make each of them feel that there is meaning in their lives, over and above the mundane.

Matte painting is mystifying; you'll never fully understand the process, the techniques, or the final product. I never have, and neither will you. However, like Buddhism, it's the seeking of enlightenment—something you can never achieve, but still you must try. Frustration is part of the process; and whether you've an artist or not, here is insight into communication through the visual image in a most important way. Pay attention.

Harrison Ellenshaw

—Harrison Ellenshaw (Matte Artist: *Star Wars*, *The Black Hole*, *The Empire Strikes Back*; Visual Effects Supervisor: *Tron*, *Dick Tracy*, *Dave*); Los Angeles, California; 2011

Introduction

From an early age, I wanted to be an artist. I was drawn first to comic books and then to science-fiction literature because of the wondrous images that fed my artistic imagination. When I read Edgar Rice Burroughs, Robert Heinlein, and Isaac Asimov as an adolescent, I would spend as much time studying the covers as I did reading the books, and I began to compose pictures to go along with the narrative. Movies brought these pictures to life. I became an avid fan of fantasy and science-fiction films as much for the visuals as for the stories. I was acutely attuned to special effects and how moviemakers made the fantastic real on screen. With cinema's magical combination of fantastic imagery and motion, is it any wonder I became a matte artist? In fact, I distinctly remember the first time I became aware of a matte painting in a feature film.

My Story

It was 1968, and my father took me to see *Planet of the Apes*. It was my kind of movie: at 12 years of age, I put myself in the place of the protagonist, Charlton Heston, fearlessly challenging a society ruled by sentient apes. The two hours flew by.

In the film's final shot, the camera pulls back to reveal the Statue of Liberty, three-quarters of which is buried in sand at the ocean's edge. This iconic shot still packs a wallop to this day! In dumbstruck awe, I wondered aloud how the scene was done. My father, an inventor and college professor, suggested that it was a model. I couldn't believe a model could look that real.

I lived in a small town in Colorado, and not many people were knowledgeable about the then-arcane art of special effects. Nevertheless, an older friend who was active in community theater informed me that it was a "matte shot." What exactly that was remained a mystery until I made a visit to Denver.

In a well-stocked bookstore, I happened upon a book on special effects called *The Technique of Special Effects Cinematography*, by Raymond Fielding. I bought the book, and it answered many of my questions, including what a matte shot was.

In those days, artists who created matte paintings were given scant credit; and without the Internet or a DVD you could rewind, it took some sleuthing to find out who did the mattes on a movie. All through my childhood, I sat through effects films to the final frame, hoping to discover who did the mattes. I felt special, knowing about the invisible painted creations of Peter Ellenshaw, Albert Whitlock, and Matthew Yuricich. These artists, along with Frank Frazetta, James Steranko, and Jack Kirby, were my heroes.

I got my first job as a matte artist through pure happenstance. I was a student at the Art Center College of Design in Pasadena, CA when the first *Stars Wars* movie came out. As the end titles flashed by, I noted that the mattes were credited to P. S. Ellenshaw. Naturally, I assumed they were done by my idol, Peter Ellenshaw. This misinformation was corrected when I read an article about the film in *Starlog Magazine*, one of the first publications to cover special-effects movies in depth for a popular audience. The paintings were actually done by

Peter Ellenshaw's son, then known as P. S. Ellenshaw. P. S. Ellenshaw, whose birth name is Peter, later changed his name to Harrison to avoid confusion with his father. The article also revealed that he worked at Disney Studios.

On a crazy impulse, I called the switchboard at Disney Studios and asked for P. S. Ellenshaw. Much to my shock, I was put through directly, and he answered the phone. Overcoming my surprise, I told him I was a long-time admirer of both his and his father's work, and that I aspired to be a matte painter. He invited me to come to the studio for an interview. Two days later, he offered me a job. Ignoring my parents' apprehension and alarm, I quit school mid-semester and started working at Disney.

When I joined Disney, the studio was ramping up for one of the biggest and most expensive pictures in its history: *The Black Hole* (1979). Harrison trained and mentored me during the production of this film. His father, Peter Ellenshaw, served as production designer on *The Black Hole*, and I personally benefited from his comments and advice. I also had the priceless opportunity to watch him and Harrison paint.

After working at Disney Studios for seven years, I became the head of the matte department after Harrison left to set up the ILM matte department. While working at Disney, I began freelancing in my spare time as a science-fiction book cover illustrator. Although I love movies, cover art gives an artist more freedom to explore their personal vision. When Ballantine Books offered me a two-year contract, it was with the provision that I move to New York City. This was a very difficult decision, but I ultimately saw the offer as too good to refuse. To date, I have done more than 1,200 science-fiction and other book covers.

Even with the switch in my career focus, my love of matte painting and films never waned. Although most effects-heavy films are still made in California, I took assignments as a matte artist whenever I got the chance, primarily for commercials and independent films.

Seven years ago, I heard that the School of Visual Art wanted to add a matte painting course to its class offerings, and I applied for the job. I had no idea how much I would enjoy teaching, especially a subject I'm passionate about. When I was offered a second teaching position at Pratt Institute, I jumped at it. Every semester is a journey, with smart, challenging, and wildly talented students. I expand the syllabus yearly to embrace new ideas and emerging technologies. This book is the product of seven years of classroom experimentation to define and communicate the essential skill set for becoming a matte artist.

How This Book Came About

When I began teaching digital matte painting, I searched for a good textbook. Books were available on digital painting, but nothing specifically dealt with the art of digital matte painting. In the intervening years, some excellent resources have come out, including DVDs by Dylan Cole, Yannick Dusso, and Chris Stoski, yet all of them assume a fairly advanced knowledge of painting.

What I wanted was a book that would take students step by step through the process of making a matte painting, and one that didn't assume knowledge of the software or tools up front. Because my classes at the School of Visual Arts and Pratt Institute are electives, I have students enrolled from many different disciplines. Some students have never painted on the computer; others have never painted with anything other than a computer; and some, like my film majors, have never painted at all. The one thing that unifies them is an interest in matte painting. My challenge has been to design coursework that all of them can do, while giving a comprehensive introduction to the craft of matte painting.

Three years ago, I added camera projection to the class using Maya, a 3D modeling and rendering program. This important matte painting technique is a complex process consisting of many discrete steps. Again, I looked for a how-to manual that all my students could