

Contents

Acknowledgement	7	4 Front of camera	66
A note from the author	7	Optical effects	67
1 Introduction	8	Filtration	70
What makes an effect 'special'?	8	Masks and vignettes	71
Why create 'effects'?	9	The glass shot	73
Film, video, digital and string	10	Photo cut-outs and hanging miniatures	80
Film	10	Mirrors	83
Video	11	Special processes using mirrors	87
Conclusion	17	5 Composite photography	92
Stocks and formats	18	Mixes and supers	92
Film formats	18	Film multiple imaging	92
Film stocks	23	Video superimposition	99
Video formats	24	Matte and split-screen	101
Methods of creating visual effects	28	Video/digital switch and wipes	105
2 Photography for effects	30	Rephotography/re-recording	108
Camera parameters	30	Film rephotography	108
The lens	30	Video re-recording	114
The shutter/pulldown system	34	6 Combined action with pre-shot backgrounds	122
Video shutter and speed	39	Physical backgrounds	122
Filters and lens attachments	39	Shooting backplates	124
Other image enhancements	41	Background (scenic) projection	131
Temporal manipulation	42	Rear projection	132
Stop frame/motion animation	42	Front projection	136
Timelapse	44	Miniature projection	144
Timeslice	46	Large-screen video (including video projection)	146
Miniatures	48	7 Self-matting processes	150
Visual effects shooting toolkit	56	Brightness separation matte	150
3 Imaging without a camera	60	Multiple run mattes	156
Film	60	Colour separation matting	158
Direct application	60	Film historic	158
Photogrammetry	61	Video historic	162
Chemical applications	62	Choice of formats	166
Non-photographic photography	62	Choice of keying colour	169
Video	63		
Digital	64		

Creating the backing	170	Formats	216
Lighting and setting up	174	Input to digital world	220
Steps for a basic colour screen shot	176	Output to analogue	221
Complex colour screen shots	176	Digital image manipulation	222
Staging colour screen shots	182	2D digital image manipulation	223
Special uses of blue/green screen processes	187	Compositing software	231
Compositing colour screen shots	188	New life into old methods	233
Difference matting	195	Perfecting the illusion	235
8 Computer-based systems and techniques	198	3D computer-generated imaging (CGI)	239
Computers – external processes (for control)	200	Digitizing (getting information into the computer)	243
Recording/post systems	201	Rendering (getting the images out of the computer)	245
Camera systems	201		
Computer-controlled camera movement	202		
Computers – internal processes (for digital imaging)	216		

Glossary and further reading

These are to be found on the companion website pages at:
<http://www.books.elsevier.com/companions/0240516753>