

CONTENTS

PREFACE 9



1 THE CRAFT AND ART OF CLAY 10

SAFETY ISSUES 20



2 FABRICATION METHODS 22

INTRODUCTION 23

HANDBUILDING 26

- Clayworking tools 30
- Spiral wedging 31
- Pinching a vessel 32
- Coil building 33
- Coil and pinch sculpture 34
- Handbuilding with porcelain 35
- Slab building 36
- TRAILBLAZER: *Juan Quezada* 37
- Large slab constructions 38
- Handbuilding in or over forms 40
- Figures 41
- Mechanical methods of forming 44
- Making walls 45
- John Mason's handbuilt sculpture 48

WHEEL-THROWING 50

- Throwing on the wheel 53
- Throwing faults and remedies 54
- Centering 55
- Opening the ball 56
- Pulling up 57
- Throwing a bowl 58

Shinsaku Hamada's large bowl 59

Toshiko Takaezu's balloon-form 60

TRAILBLAZER: *Toshiko Takaezu* 61

Throwing a pitcher 62

Bowl forms 63

Pitcher and bottle forms 64

Throwing a bottle 65

Methods of footing pots 66

Pulling and attaching handles 67

Thrown and cut handles 68

Flat lids for flanged pots 69

Dome lids for flanged pots 70

Flanged lids: domed and flat 71

Lidded pot forms 72

Casserole dish with inside flange 73

Casserole trimming and lid making 74

Thrown casserole knob 75

Platter throwing 76

Platter and plate trimming 77

Platter forms 78

Teapot forms 79

Teapot throwing, lid and spout 80

Susan Peterson's wheel-thrown forms 82

Donut throwing and trimming 83
Off-the-hump throwing 84
Pedestal vessels 85
Thrown and hand construction 86
TRAILBLAZER: Peter Voulkos 87

SCULPTURE 88

PLASTERWORK 91

Preparing plaster 93

Making a one-piece mold 94
Making a two-piece mold 95
Two-piece mold with handle 96
Slip casting and press molding 97
Multipiece molds 98
Wheelheads and complicated molds 99
Inventing with molds 100
A ceramic installation 101



3 DESIGN, DECORATION, AND GLAZING 102

DESIGN: FROM IDEA TO ART 103

An exercise in how to see 106
Experimenting with design 107
Design ideas from nature 108

DECORATION 110

Decorating with clay 111
Pre-patterned decoration 112
Creating line in three dimensions 113
Texturing clay 114

GLAZING 115

Weighing and mixing a glaze 117
How to glaze 118
Decorating over and under glaze 119
Decorating with glaze 120
Decorative techniques with glazes 121
Glaze application 122
Surface details 124
The Japanese way 125
Photo-emulsion and decals 126
Decorating with photo-emulsion 127



4 CLAYS 128

Science and ceramic art 129
Geological types of natural clays 131
Commercial clays after firing 134
Test results of commercial clays 135
Classifying fired clay wares 136
What is a clay body? 139
Testing materials 140
Composing a good clay body 142

Talc body 145
Paperclay 146
TRAILBLAZER: Luo Xiao-Ping 147
Additions to the clay-body batch 148
Preparing the clay for work 150
Making casting slip 151
Historical clay bodies 152
Unusual clay bodies 156



5 GLAZES 158

- Origins of glazes 159
- Feldspars: clay and glaze fluxes 160
- Developing glazes 161
- Fine examples of glazes 162
- Visual samples: 34 glaze materials 164
- Reading the test photographs 168
- 50/50 blends of 28 glaze materials, cone 5 oxidation 170
- 50/50 blends of 28 glaze materials, cone 10 reduction 172
- Compounding a complete glaze 174
- Composite glaze fluxes 174
- Organic materials for glazes 176
- Fusion buttons of pemco frits 177
- Fusion buttons of ferro frits 178
- Garbage glazes 179
- Colors 180
- Ceramic coloring implements 184
- Stains for coloring implements 185
- Ways of blending colors 186
- Ferro frits-plus-stains – low-fire 192
- Frits-plus-stains – high-fire 194
- Simple ways of changing glazes 196
- Shino 198
- Low-fire commercial treatments 199
- MayCo “one-strokes” (stains) 201
- MayCo “underglazes” (engobes) 202
- MayCo “art glazes” 203
- MayCo “special glazes” 204
- Lusters for reduction firing 205
- Making your own lusters for oxidation firing 206
- China paint process 207
- Working with gold 208
- Drawing a grid pattern 210
- Glaze faults 211



6 FIRING THE WARE 212

TEMPERATURE 214

ATMOSPHERE 218

KILNS 219

- Placing kilns 223
- Kiln materials 223
- Stacking kilns 225

FIRING 227

- Principles of kiln firing 228

- “Rebirth through clay” 230
- Special firing techniques 231
- Firing faults 233
- Fired in place sculpture 243
- Patinas developed in firing 244
- TRAILBLAZER: Huey Beckham 245
- Potters who also work in glass 246



7 MARKETING AND COMPUTERS 248

- Marketing 249
- TRAILBLAZER: Otto Heino 253
- Computer programs 254

- Virtual ceramics 257
- Tableware 259



8 HIGHPOINTS IN CERAMIC HISTORY 262

HISTORICAL OVERVIEW 265

- Influences in our time 279
- Site-specific installations 284
- Tile 289
- Narrative 290
- Mixed media 295

Kaneko's Fremont project 297

ANCIENT TRADITIONS 298

- Bridging two worlds 303
- Golden Bridge Pottery 304
- TRAILBLAZER: Janet Mansfield 305



9 PORTFOLIO 306



10 COMPENDIUM 350

GLAZE OXIDES 352

CHEMICAL COMPOSITIONS 357

- Calculating glaze, batch to formula and formula to batch 359
- More charts for use in glaze calculations 364

DATA AND CONVERSIONS 366

- Feldspars, frits, and clays 366
- Frits 366
- Ferro lead-bearing frits 367
- Ferro leadless frits 368
- Pemco lead-bearing frits 369
- Pemco leadless frits 369
- Temperatures and cones 374
- Conversion charts 379

ARTISTS' TECHNIQUES 380

LIST OF ARTISTS 391

MUSEUM COLLECTIONS 396

GLOSSARY 412

ANNOTATED BIBLIOGRAPHY 418

- General books on ceramics 418
- Ceramic history books 420
- Technical books 423

CERAMICS MAGAZINES 424

RESIDENCIES 425

ACKNOWLEDGEMENTS 426

INDEX 427