

CONTENTS

Introduction: The Nature and Aims of Archaeology

page 9

PART I The Framework of Archaeology

page 15

1 The Searchers: The History of Archaeology

page 17

- The Speculative Phase 18
- The Beginnings of Modern Archaeology 22
- Classification and Consolidation 32
- A Turning Point in Archaeology 34
- World Archaeology 37 Summary 40
- Further Reading 40

BOX FEATURES:

- Pompeii: Archaeology Past and Present 20
- The Impact of Evolutionary Thought 24
- 19th-century Pioneers of North American Archaeology 26
- The Development of Field Techniques 29
- The New Archaeology: Key Concepts 35
- Glastonbury: Changing Ideas and Approaches 36

2

What is Left? The Variety of the Evidence

page 41

- Basic Categories of Archaeological Evidence 41
- Formation Processes 44
- Cultural Formation Processes—How People Have Affected What Survives in the Archaeological Record 46
- Natural Formation Processes—How Nature Affects What Survives in the Archaeological Record 47
- Summary 60 Further Reading 60

BOX FEATURES:

- Experimental Archaeology 45
- Wet Preservation: The Ozette Site 52
- Dry Preservation: The Tomb of Tutankhamun 54
- Cold Preservation: The Barrow Site 57

3

Where? Survey and Excavation of Sites and Features

page 61

- Discovering Archaeological Sites and Features 62
- Assessing the Layout of Sites and Features 74
- Excavation 90 Summary 100
- Further Reading 100

BOX FEATURES:

- Regional Survey on Melos 65
- Sampling Strategies 66
- Site Discovery by Aerial Photography 70
- Teotihuacan Mapping Project 76
- Surface Investigation at Abu Salabikh 78
- Underwater Archaeology 81
- The Red Bay Wreck: Discovery and Excavation 82
- Measuring Magnetism 85 Survey at Sutton Hoo 88

4

When? Dating Methods and Chronology

page 101

RELATIVE DATING 102

Stratigraphy 102 Typological Sequences 104
Linguistic Dating 108 Climate and Chronology 109

ABSOLUTE DATING 112

Calendars and Historical Chronologies 113

Annual Cycles: Varves and Tree-Rings 117

Radioactive Clocks 121

Calibrated Relative Methods 136

Chronological Correlations 139 World Chronology 142

Summary 148 Further Reading 148

BOX FEATURES:

The Maya Calendar 114

The Principles of Radioactive Decay 121

The Publication of Radiocarbon Dates 123

How to Calibrate Radiocarbon Dates 125

Dating Our African Ancestors 134

Dating the Thera Eruption 140

PART II

Discovering the Variety of Human Experience

page 149

5

How Were Societies Organized? Social Archaeology

page 153

Establishing the Nature and Scale of the Society 154

Further Sources of Information for Social

Organization 162

Techniques of Study for Band Societies 170
Techniques of Study for Segmentary Societies 174
Techniques of Study for Chiefdoms and States 182
Summary 194 Further Reading 194

BOX FEATURES:

Settlement Patterns in Mesopotamia 160
Language and Ethnicity 169 Space and Density in Hunter-Gatherer Camps 173
Factor Analysis and Cluster Analysis 177
Early Wessex 178 Maya Territories 183
Multi-Dimensional Scaling 184
Social Analysis at Moundville 190

6

What Was the Environment? Environmental Archaeology

page 195

Investigating Environments on a Global Scale 195
Studying the Landscape 201
Reconstructing the Plant Environment 207
Reconstructing the Animal Environment 215
Reconstructing the Human Environment 223
Summary 232 Further Reading 232

BOX FEATURES:

Reconstructing Climates from Sea and Ice Cores 197
Cave Sediments 204 Pollen Analysis 208
Elands Bay Cave 220 Site Catchment Analysis 224
Ancient Gardens at Kuk Swamp 228

7

What Did They Eat? Subsistence and Diet

page 233

What Can Plant Foods Tell Us About Diet? 234
Information from Animal Resources 246
Investigating Diet, Seasonality, and Domestication from Animal Remains 249
How Were Animal Resources Exploited? 262

Assessing Diet from Human Remains 265
Summary 270 Further Reading 270

BOX FEATURES:

Paleoethnobotany: A Case Study 236
Butser Experimental Iron Age Farm 238
Investigating the Rise of Farming in the Near East 242
Taphonomy 246 Quantifying Animal Bones 250
The Study of Animal Teeth 251
Bison Drive Sites 252
Farming Origins: A Case Study 256
Shell Midden Analysis 260

8

How Did They Make and Use Tools? Technology

page 271

Unaltered Materials: Stone 273
Other Unaltered Materials 285
Synthetic Materials 292 Archaeometallurgy 296
Summary 304 Further Reading 306

BOX FEATURES:

Refitting and Microwear Studies at the Meer Site 280
Woodworking in the Somerset Levels 286
Metallographic Examination 298
Copper Production in Peru 300
Early Steelmaking: an Ethnoarchaeological Experiment 305

9

What Contact Did They Have? Trade and Exchange

page 307

The Study of Interaction 307
Discovering the Sources of Traded Goods: Characterization 314
The Study of Distribution 320
The Study of Production 327

The Study of Consumption 330
Exchange and Interaction: The Complete System 332
Summary 338 Further Reading 338

BOX FEATURES:

Modes of Exchange 310
Materials of Prestige Value 312
Analysis of Artifact Composition 316
Lead Isotope Analysis 319
Trend Surface Analysis 323
Fall-off Analysis 324
Distribution: The Kaş Wreck 328
Production: Greenstone Artifacts in Australia 331
Interaction Spheres: Hopewell 337

10

What Did They Think? Cognitive Archaeology, Art, and Religion

page 339

Investigating How Human Symbolizing Faculties Evolved 341
Working with Symbols 347
From Written Source to Cognitive Map 347
Measuring the World 350
Planning: Maps for the Future 352
Symbols of Organization and Power 355
Symbols for the Other World: the Archaeology of Religion 358
Depiction: Art and Representation 363
Summary 370
Further Reading 370

BOX FEATURES:

Paleolithic Cave Art 344
Paleolithic Portable Art 346
The Megalithic Yard 351
Maya Symbols of Power 356
Recognizing Cult Activity at Chavín 360
Identifying Individual Artists in Ancient Greece 364
Conventions of Representation in Egyptian Art 366
A Question of Style 369

11

Who Were They? What Were They Like? The Archaeology of People

page 371

Identifying Physical Attributes 372

Assessing Human Abilities 381

Disease, Deformity, and Death 386

Assessing Nutrition 398 Population Studies 399

Ethnicity and Evolution 401 Summary 403

Further Reading 404

BOX FEATURES:

How to Reconstruct the Face 379

Looking Inside Bodies 388

Life and Death Among the Eskimo 392

Lindow Man: the Body in the Bog 396

Genetics and New World Colonization 402

12

Why Did Things Change? Explanation in Archaeology

page 405

How to Construct a "Traditional" Explanation 407

The Processual Alternative 411

The Form of Explanation: General or Particular 415

Attempts at Explanation: One Cause or Several? 417

"Post-Processual" Explanation 426

Cognitive-Processual Archaeology: the New
Synthesis 431

Summary 434 Further Reading 434

BOX FEATURES:

Diffusionist Explanation Rejected: Great
Zimbabwe 408

The Origins of Farming: A Processual Explanation 413

Marxist Archaeology: Key Features 414

Origins of the State I: Peru 418

Origins of the State II: The Aegean 420

The Classic Maya Collapse 424

Explaining the European Megaliths 428

PART III

The World of Archaeology

page 435

13

Archaeology in Action

page 437

The Melos Project 438

The Oaxaca Projects: the Origins and Rise of the
Zapotec State 446

Research in Crocodile Dundee Country: Kakadu
National Park, Australia 455

Further Reading 462

14

Whose Past? Archaeology and the Public

page 463

Who Owns the Past? 463 The Uses of the Past 467

Conservation and Destruction 470

Archaeology and Public Understanding 480

Summary: World Archaeology and the Human Past 483
Further Reading 484

BOX FEATURES:

Applied Archaeology: Farming in Peru 468

The Practice of CRM in the United States 472

Conservation: The Great Temple of the Aztecs in Mexico
City 476

Destruction and Response: Mimbres 478

Display and Funding: Viking York 482

Glossary 485

Notes and Bibliography 493

Acknowledgments 524

Index 527