Contents

List of Figures ix
Preface xiv
A Note on Dating Terminology xvi
Acknowledgements xvii

1 The Relevance and Reality of Ancient Migration 1
   Migration in Prehistoric Times 4
   Hypothesizing About Prehistoric Migrations 6
   Migrations in History and Ethnography 8
      The Helvetii 8
      Ancient China 9
      Medieval Iceland 10
      The Nuer of Sudan 10
      The Iban of Sarawak 12
   Relevance for Prehistoric Migration? 13

2 Making Inferences About Prehistoric Migration 17
   Changes in Time and Space – Genes, Languages, Cultures 18
   Human Biology, Genetics, and Migration 19
      Demic Diffusion 21
   Language Families and the Study of Migration in Prehistory 22
      Language Family Spread: Lessons from Recent History 26
      Language Family Spread: Lessons from Anthropology 28
      Dating the Spreads of Language Families 29
Cultures in Archaeology – Do They Equate with Linguistic and Biological Populations? 30

Archaeology and the Study of Migration in Prehistory 32

One End of the Spectrum – Intensive Culture Change without Significant Migration 32

The Other End of the Spectrum – Intensive Cultural Change with Significant Migration 33

3 Migrating Hominins and the Rise of Our Own Species 36

Behavioral Characteristics and Origins of Early Hominins in Africa 38

First Hominin Migration(s) – Out of Africa 1 41

Unfolding Species in Time and Space 46

Java, Flores, and Crossing the Sea 48

Out of Africa 2? 50

Out of Africa 3? The Origins of H. sapiens 52

The Recognition of Modern Humans in Biology and Archaeology 54

The Expansion of Modern Humans Across the African and Eurasian Continents, 130,000–45,000 Years Ago 58

Africa 58

The Levant and Southern Asia 60

Northern and Western Eurasia 63

The Fate of the Neanderthals 66

Explanations? 67

4 Beyond Eurasia: The Pioneers of Unpeopled Lands – Wallacea and Beyond, Australia, The Americas 71

Crossing the Sea Beyond Sundaland 72

How Many Settlers? 74

The First Australo-Melanesians 76

The Archaeology of Island Colonization – Wallacea, Melanesia, Australia 77

Heading North and Offshore Again – Japan 81

The Americas 83

Getting to Beringia 84

Circumventing the Ice 88

The Rapid Unfolding of American Colonization 90

5 Hunter-Gatherer Migrations in a Warming Postglacial World 96

Postglacial Recolonizations in Northern Eurasia 97

After the First Americans: Further Migrations Across Bering Strait 101

Na-Dene and Yeniseian 101

The Apachean Migration 104
The Holocene Colonizations of Arctic Coastal North America 105

The Thule Migration and the Inuit 107

The Early Holocene Colonization of a Green Sahara 109

Continental Shelves and Their Significance for Human Migration 112

Holocene Australia – Pama-Nyungan Migration? 113

Linguistic Prehistory during the Australian Holocene 117

Who Were the Ancestral Pama-Nyungans? 119

6 The First Farmers and Their Offspring 123

Where and When Did Food Production Begin? 124

Why Did Food Production Develop in Some Places, but Not Others? 127

Why Was Domesticated Food Production Relatively Slow to Develop? 128

Food Production and Population Expansion 129

The Neolithic 133

Food Production as the Driving Force of Early Agriculturalist Migration 135

7 The Fertile Crescent Food Production Complex 140

Agricultural Origins in the Fertile Crescent 141

Neolithic and Chalcolithic Expansion Beyond the Fertile Crescent 147

Anatolia and Southeastern Europe 147

Neolithic Migration Beyond Greece and the Balkans 149

The Steppes and Central Asia 151

Iran, Pakistan, and South Asia Beyond the Indus 153

Linguistic History and the Spread of the Fertile Crescent Food Production Complex 157

Perspectives from Indo-European 157

The Possible Significance of the Turkic and Yeniseian Languages in Central Asia 163

West Eurasian Genetic and Population History in the Holocene 165

Peninsular Indian Archaeology and Dravidian Linguistic History 168

The Spread of the Fertile Crescent Food-Producing Economy into North Africa 169

The Fertile Crescent Food Production Complex and Its Impact on Holocene Prehistory in Western Eurasia 172

8 The East Asian and Western Pacific Food Production Complexes 178

Agricultural Origins in the Yellow and Yangzi Basins of East Asia 178

Migrations from the Yellow River Basin 181

Migrations from the Yangzi Basin – Mainland Southeast Asia 182

Early Rice and the Linguistic Record 187

Genetics, Human Biology, and the East Asian Mainland during the Holocene 189
Island Southeast Asia and Oceania 191

The Colonization of Oceania 194

The History of the Austronesian Language Family 197

Biological Anthropology and the Austronesians 201

The East Asian and Western Pacific Food Production Complexes and Their Impacts on Holocene Prehistory 204

9 The African and American Food Production Complexes 210

Food Production in Sub-Saharan Africa 211

West Africa and the Niger-Congo-Speaking Populations 213

The African Food Production Complex in Perspective 218

Holocene Migrations in the Americas 219

The Central Andes 221

Amazonia 224

The Caribbean Islands 228

Mesoamerica 229

Northern Mesoamerica, the Southwestern United States, and the Uto-Aztecs 230

The Eastern Woodlands 234

The American Food Production Complexes and Their Impacts on Holocene Prehistory 238

10 The Role of Migration in the History of Humanity 243

References 249

Index 299