



Vectors of Death

The Archaeology of European Contact

Ann F. Ramenofsky

University of New Mexico Press

Albuquerque

Contents

List of Figures	viii
List of Tables	ix
Preface	xiii
Acknowledgments	xv
One: The Population Debate in Perspective	1
Two: Estimates of Aboriginal Population	6
The Ethnological Debate	6
Dead Reckoning	7
Depopulation Ratios	10
Archaeological Estimates of Population	14
The Use of Analogy	15
Ethnohistory and Archaeology	19
Conclusions	21
Three: Methods and Definitions	22
Measurement and Descriptive Requirements	23
Grave Counts	23
Settlement Data	24
Chronology	31
Test Cases	34
Sampling Biases	35
Four: Archaeological Test Cases	42
The Lower Mississippi Valley	42
Historical Aboriginal Population	42
Significance of the Test Case	44
Late Mississippi Period Chronologies	49
Alternative Chronology	52

Analysis of Population Change	55
Settlement Counts (S_c)	55
Settlement Distribution	58
Conclusions	58
Lower Mississippi Valley History, 1541–1764	59
European Exploration and Colonization	59
Aboriginal Census Counts	63
Aboriginal Settlement History	65
Epidemic History	67
Summary and Conclusions	71
Central New York	71
Significance of the Test Case	72
Chronologies	75
Owasco-Iroquois Traditions	75
Alternative Chronology and Periodization	78
Analysis of Population Change	82
Settlement Counts (S_c)	82
Settlement Area (S_a)	84
Roofed Area of Settlement (S_m)	85
Regional Estimates of Population (P_{ar})	87
Conclusions	89
Iroquois History 1497–1775	90
European Discovery	90
European-Iroquois Interactions	91
Iroquois Population Trends	94
Settlement History	96
Causes of Decline	97
Summary and Conclusions	100
The Middle Missouri	102
Historic Aboriginal Occupation	102
Significance of the Test Case	104
Middle Missouri Late Prehistoric and Historic Chronologies	107
Alternative Chronology	110
Analysis of Population Change	114
Settlement Counts (S_c)	114
Settlement Area (S_a)	116
Roofed Area of Settlement (S_m)	117
Regional Estimates of Population (P_{ar})	120
Conclusions	123
Middle Missouri History 1738–1845	124
European Discovery and Colonization	124
Aboriginal Population Estimates	126
Settlement History	127
Epidemic History	130
Conclusions	134
Comparison of Test Cases	135

Five: The Disease Process and Patterns of Spread	137
Introduction	137
Interactions between Hosts and Parasites	138
Classification of Acute and Epidemic Diseases	140
Epidemic Syphilis	141
Tuberculosis	142
Dimensions of the Classification	145
Class I: Directly Transmitted Viruses	146
Class II: Directly Transmitted Bacterial Infections	149
Class III: Indirectly Transmitted Viral Infections	152
Class IV: Indirectly Transmitted Bacterial Infections	155
Class V: Indirectly Transmitted Protozoal Infections	158
Conclusions	160
Epidemics and Spatial Diffusion	162
Deterministic Models of Directly Transmitted Infections	162
Epidemic Potential among Amerindians	166
Assessment of Dobyns's Epidemic Hypothesis	168
Conclusions	171
Six: Implications and Conclusions	173
Appendix A Lower Mississippi Valley	177
Appendix B Central New York	200
Appendix C Middle Missouri	221
References	251
Index	285