Every year, there are over 1.6 million violent deaths worldwide, making violence one of the leading public health issues of our time. With the twentieth century just behind us, it is hard to forget that 191 million people lost their lives directly or indirectly through conflict.

This collection of engaging case studies on violence and violent deaths reveals how violence is reconstructed from skeletal and contextual information. By sharing the complex methodologies for gleaning scientific data from human remains and the context in which they are found, with complementary perspectives for examining violence from both past and contemporary societies, bioarchaeology and forensic anthropology prove to be fundamentally inseparable.

This book provides a model for training forensic anthropologists and bioarchaeologists, not just in the fundamentals of excavation and skeletal analysis, but in all subfields of anthropology, to broaden their theoretical and practical approach to dealing with everyday violence.

Debra L. Martin is Linsky Professor of Anthropology at the University of Nevada, Las Vegas. For the past 30 years, her research interests have focused on the analysis of ancient human remains to better understand the origin and evolution of violence and disease in culturally diverse human groups. Her primary research interests currently include bridging social theory with bioarchaeological data, the impact of raiding, warfare, and captivity on morbidity and mortality, and the ways in which social control creates marginalized individuals. Her popular course “The Anthropology of Violence” is offered every year at the University of Nevada.

Cheryl P. Anderson is a Ph.D. student at the University of Nevada, Las Vegas. Her primary research interests include the evolution of organized violence, the use of violence as a means of communication, and the impacts of social inequality on human health. Recently, she has investigated violence in a late precolonial skeletal collection from Northern Mexico. Additionally, she has been involved in projects analyzing human skeletal remains from a historic period family cemetery from southern Nevada, a Bronze Age population from the United Arab Emirates, and a Middle Bronze Age village in Anatolia.
62 *African Genesis: Perspectives on Hominin Evolution* Sally C. Reynolds & Andrew Gallagher (eds.) 978 1 107 01995 9
63 *Consanguinity in Context* Alan H. Bittles 978 0 521 78186 2
64 *Evolving Human Nutrition: Implications for Public Health* Stanley Ulijaszek, Neil Mann & Sarah Elton (eds.) 978 0 521 86916 4
65 *Evolutionary Biology and Conservation of Titis, Sakis and Uacaris* Liza M. Veiga, Adrian A. Barnett, Stephen F. Ferrari & Marilyn A. Norconk (eds.) 978 0 521 88158 6
66 *Anthropological Perspectives on Tooth Morphology: Genetics, Evolution, Variation* G. Richard Scott & Joel D. Irish (eds.) 978 1 107 01145 8
Bioarchaeological and Forensic Perspectives on Violence

How Violent Death is Interpreted from Skeletal Remains

Edited by

DEBRA L. MARTIN
University of Nevada, Las Vegas

CHERYL P. ANDERSON
University of Nevada, Las Vegas
## Contents

### List of contributors  

Page x

### Part I  Introduction

1  Introduction: interpreting violence in the ancient and modern world when skeletonized bodies are all you have  
Debra L. Martin and Cheryl P. Anderson  
Page 3

### Part II  Overview and innovative methodologies

2  Killed in action? A biometrical analysis of femora of supposed battle victims from the Middle Bronze Age site of Weltzin 20, Germany  
Stefan Flohr, Ute Brinker, Elena Spanagel, Annemarie Schramm, Jörg Orscheidt, and Uwe Kierdorf  
Page 17

3  The taphonomy of maritime warfare: a forensic reinterpretation of sharp force trauma from the 1676 wreck of the Royal Swedish Warship Kronan  
Anna Kjellström and Michelle D. Hamilton  
Page 34

4  The determination of homicide vs. suicide in gunshot wounds  
Vincent H. Stefan  
Page 51

5  The first cut is the deepest: looking for patterns in cases of human dismemberment  
Andrew C. Seidel and Laura C. Fulginiti  
Page 63

6  Victims of violence? A methodological case study from precolonial Northern Mexico  
Cheryl P. Anderson  
Page 83
## Contents

### Part III Ritual and performative violence

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Signatures of captivity and subordination on skeletonized human remains: a bioarchaeological case study from the ancient Southwest</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>Ryan P. Harrod and Debra L. Martin</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Classic Maya warfare and skeletal trophies: victims and aggressors</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>Rebecca Storey</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Face me like a man! (or, like a woman): antemortem nasal fractures in pre-Columbian San Pedro de Atacama</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>Christina Torres-Rouff and Laura M. King</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Why some bodies matter: defacement and narrative in historical forensics cases</td>
<td>148</td>
</tr>
<tr>
<td></td>
<td>William N. Duncan and Christopher M. Stojanoski</td>
<td></td>
</tr>
</tbody>
</table>

### Part IV Violence and identity

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Violence in life, violence in death, resiliency through repatriation: bioarchaeological analysis and heritage value of Yaqui skeletal remains from Sonora, Mexico</td>
<td>171</td>
</tr>
<tr>
<td></td>
<td>Heidi J. Bauer-Clapp and Ventura R. Pérez</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Interpreting skeletal trauma and violence at Grasshopper Pueblo (AD 1275–1400)</td>
<td>192</td>
</tr>
<tr>
<td></td>
<td>Kathryn M. Baustian</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>The contribution of forensic anthropology to national identity in Chile: a case study from Patio 29</td>
<td>216</td>
</tr>
<tr>
<td></td>
<td>Elizabeth M. Devisser, Krista E. Latham, and Marisol Intríago Leiva</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Cranial trauma and cranial modification in post-imperial Andahuaylas, Peru</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td>Danielle Kurin</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Allies today, enemies tomorrow. A comparative analysis of perimortem injuries along the biomechanical continuum</td>
<td>261</td>
</tr>
<tr>
<td></td>
<td>Melissa Scott Murphy, Brian Spatola, and Rick Weathermon</td>
<td></td>
</tr>
</tbody>
</table>
Contents ix

16 Interpreting gunshot trauma as context clue: a case study from historic North Las Vegas, Nevada 289

JOHN J. CRANDALL, RYAN P. HARROD, CHERYL P. ANDERSON, AND KATHRYN M. BAUSTIAN

Part V Concluding thoughts 309

17 Living on the sidelines of death: anthropologists and violence 311

ALISON GALLOWAY

Index 321
Contributors

Cheryl P. Anderson, Department of Anthropology, University of Nevada, 4505 S. Maryland Pkwy Mailstop 455003, Las Vegas, NV 89154-5003, USA

Heidi J. Bauer-Clapp, Machmer Hall, Department of Anthropology, University of Massachusetts Amherst, Amherst, MA 01003, USA

Kathryn M. Baustian, Department of Anthropology, University of Nevada, 4505 S. Maryland Pkwy Mailstop 455003, Las Vegas, NV 89154-5003, USA

Ute Brinker, State Authority for Culture and Preservation of Monuments Mecklenburg-Vorpommern, Domhof 4/5, 19055 Schwerin, Germany

John J. Crandall, Department of Anthropology, University of Nevada, 4505 S. Maryland Pkwy Mailstop 455003, Las Vegas, NV 89154-5003, USA

Elizabeth M. DeVisser, University of Indianapolis, 200 S. Regent St., Lansing, MI 48912, USA

William N. Duncan, Department of Sociology and Anthropology, East Tennessee State University, 223B Rogers-Stout Hall, PO Box 70644, Johnson City, TN 37614-1702, USA

Stefan Flohr, Department of Biology, University of Hildesheim, Marienburger Platz 22, 31141 Hildesheim, Germany; Thuringian State Office for the Preservation of Historical Monuments and Archaeology, Humboldtstraße 11, 99423, Weimar, Germany

Laura C. Fulginiti, Maricopa County Office of the Medical Examiner, 701 W. Jefferson, Phoenix, AZ 85007, USA

Alison Galloway, Campus Provost/Executive Vice Chancellor, Chancellors Office, 1156 High St., University of California, Santa Cruz, CA 95064, USA

Michelle D. Hamilton, Department of Anthropology, Forensic Anthropology Center, Texas State University, 601 University Dr., San Marcos, TX 78666, USA
Contributors

Ryan P. Harrod, Department of Anthropology, University of Alaska Anchorage, Anchorage, AK 99508, USA

Uwe Kierdorf, Department of Biology, University of Hildesheim, Marienburger Platz 22, 31141 Hildesheim, Germany

Laura M. King, Colorado College, 14 E Cache La Poudre St., Colorado Springs, CO 80903, USA

Anna Kjellström, Stockholm University, Department of Archaeology and Classical Studies, Sweden

Danielle Kurin, Department of Anthropology, HSSB 1002, University of California Santa Barbara, CA 93106, USA

Krista E. Latham, Departments of Biology and Anthropology, University of Indianapolis, 1400 East Hanna Ave., Indianapolis, IN 46227, USA

Marisol Intriglio Leiva, Encargada de la Unidad Especial de Identificación Forense, Servicio Médico Legal, Avenida La Paz 1012, Independencia, Santiago, Chile

Debra L. Martin, University of Nevada, Las Vegas, Department of Anthropology, 4505 S. Maryland Pkwy Mailstop 455003, Las Vegas, NV 89154–5003, USA

Melissa Scott Murphy, Anthropology Department, 3431, University of Wyoming, 1000 E. University Avenue, Laramie, WY 82070, USA

Jörg Orschiedt, University of Berlin, Department of History and Cultural Studies, Institute of Prehistoric Archaeology, Altensteinstr. 15, 14195 Berlin, Germany

Ventura R. Pérez, 201 Machmer Hall, Department of Anthropology, University of Massachusetts Amherst, Amherst, MA 01003, USA

Annemarie Schramm, State Authority for Culture and Preservation of Monuments Mecklenburg-Vorpommern, Domhof 4/5, 19055 Schwerin, Germany

Andrew C. Seidel, Center for Bioarchaeological Research, School of Human Evolution and Social Change, Arizona State University, Tempe, AZ 85287, USA

Elena Spanagel, Department of Biology, University of Hildesheim, Marienburger Platz 22, 31141 Hildesheim, Germany

Brian Spatola, National Museum of Health and Medicine, 2500 Linden Lane, Silver Spring, MD 20910, USA
Contributors

Vincent H. Stefan, Herbert H. Lehman, College – CUNY, Chair, Department of Anthropology, 250 Bedford Park Blvd. West, Bronx, NY 10468–1527, USA

Christopher M. Stojanowski, Center for Bioarchaeological Research, School of Human Evolution and Social Change, Arizona State University, Tempe, AZ 85287, USA

Rebecca Storey, Department of Comparative Cultural Studies, University of Houston, Houston, TX 77204–5020, USA

Christina Torres-Rouff, Anthropology – SSHA, University of California Merced, 5200 N. Lake Road, Merced, CA 95343, USA

Rick Weathermon, Anthropology Department, 3431, University of Wyoming, 1000 E. University Avenue, Laramie, WY 82070, USA