

Douglas H. Ubelaker,<sup>1</sup> Ph.D.

## Review of: *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures*

**REFERENCE:** Cox M, Flavel A, Hanson I, Laver J, Westling R. *The scientific investigation of mass graves: towards protocols and standard operating procedures*. New York: Cambridge University Press, 2008, 562 pp.

With increasing frequency, forensic scientists focus their professional attention on issues relating to the investigation of mass graves, usually connected with alleged human rights violations. Such applications can be challenging since often, they are associated with strong political interests, safety issues, considerable public interest, and involvement of multinational individuals and organizations. A key challenge for forensic scientists involved in such efforts includes determining what standards and protocols to follow during the investigation. The many professionals working together on such projects likely all have their own individual procedures that they routinely follow. However, collectively, these procedures may conflict and not present a clear division of labor in what must be a cooperative and collaborative effort. This volume focuses specifically on protocols relating to mass grave investigation and provides guidance to those grappling with these issues.

The five authors/editors of this volume are among 17 contributors whose names appear in varying combinations on the 10 chapters of this 562-page volume. All have considerable experience with the relevant issues and have participated in the development of the protocols presented in the book. Although most of the authors originate from the U.K., the experience reflected and the scope of the volume is international. As suggested by the title, this book focuses distinctly on mass grave investigation, but as noted by the authors, the content is applicable to the recovery and analysis of human remains from a variety of contexts. The very well written text is accompanied by 107 illustrations, 122 tables, an

extensive bibliography, and a CD presenting a variety of forms available for recording key information.

Following an introductory chapter explaining the context and structure of the volume, nine additional chapters present detailed discussion of site evaluation, excavation, evidence processing, safety issues, documentation procedures, methodology of skeletal analysis, community interaction, and the roles of various forensic specialists, including anthropologists, pathologists, odontologists, soil analysts, DNA specialists, and entomologists. The text focuses on procedure, especially the particular, very detailed protocols presented in the volume. Considerable detail is included on skeletal analysis, especially techniques for the assessment of ancestry, sex, age at death, living stature, pathology, and trauma.

A central issue in mass grave investigation is identification of the decedents. Guidance is needed in this process regarding what constitutes positive identification versus presumptive identification, how diverse evidence can be evaluated collectively and the relative threshold probabilities involved. Although chapter 8 carries the title "...techniques for determining identity," it mostly presents detail on assessment of stature, pathology, trauma, heat modifications, handedness, tissue sampling, and metrical analysis. Additional discussion on identification is presented in Chapter 6 "mortuary procedures," Chapter 7 "basic procedures and demographic assessment," and elsewhere in the volume.

This volume belongs on the shelf of anyone considering the excavation and analysis of human remains. The detail presented in the forms and protocols and the experienced perspective provided by the text touch all the key points. While individual forensic scientists and project managers may choose approaches that differ from those provided here, any protocol selection would benefit from consideration of the rich methodology outlined in this volume.

<sup>1</sup>Department of Anthropology, National Museum of Natural History, Smithsonian Institution, Washington, DC.