Harold Mytum and Richard Veit

The field of mortuary studies is anything but moribund. New technologies and methodologies are breathing new life into cemetery studies. However, these innovations are not widely known and there is a tendency for scholars to labor alone unaware of relevant research that could aid them in their endeavors. In this volume we summarize and critically reflect on the effectiveness of new methodologies. Sadly, only a few weeks after this project began COVID-19 would fragment the world into isolation of varying degrees, a situation that continued through to the time of the volume's submission. Surrounded by stories of pandemic, death, and burial, with funerals and commemoration limited, the authors of these chapters have valiantly pressed on in preparing their contributions. They examine how we can, as social life resumes, encourage a "new normal" in fieldwork associated with historic burial grounds and their monuments, and apply more effective methods at all stages of our non-invasive burial ground research.

This volume aims to set out new methodologies of recording and ambitious combinations of various techniques frequently developed in other aspects of archaeology but not often considered for a historic burial ground survey. The volume has been divided into three parts, the first considering documentary research and recording mortuary landscapes, the second reflects on memorial recording projects, and the third on a traditional weakness in mortuary studies—that of archiving and wider dissemination of data and interpretations.

In "Part I. Exploring Surface, Subsurface, and Documentary Evidence," three chapters emphasize different aspects of the complex subdiscipline of mortuary landscape study. Harold Mytum discusses innovation in photographing memorials, introducing the application of Reflectance Transformation Imaging (RTI) for memorials in which traditional oblique lighting is insufficient (Chapter 1). In North America, and especially New England, gravestone photography is a key recording technique that has been widely employed for decades. Indeed, the first true scholarly study of New England gravestones, *Gravestones of Early New England, and the Men Who Made Them*, 1653–1800, exemplifies this approach. This

technique was taken up by art historians (Ludwig 1966; Ludwig 1966; Tashjian and Tashjian 1974; Duval and Rigby 1978 and others) as well as anthropologists, beginning with James Deetz and Edwin Dethlefsen (Deetz and Dethlefsen 1965, 1967; Dethlefsen and Deetz 1966, 1967) and continues to the present day (Little 1998; Mould and Loewe 2006). However, gravestone photography using natural light is challenging (AGS 2003). Raking sunlight in the midday hours has long been the gold standard for outdoor photography, but some markers are set flush with the ground or oriented in such a way that they are never particularly well lit. Long mirrors and photographers' reflectors can cast light on such reluctant subjects, as can LED light strips, but the results often appear unnatural. RTI imaging provides a new method for documenting poorly lit and eroded stones and is straightforward enough to be widely employed.

RTI involves creating multiple images using a tripod and flash, and then analyzing the set of images to create combined files for display, making this a time-consuming process. But its results can be outstanding. Almost all the necessary equipment is standard for those with a moderate interest in photography, and the additional items are easy to obtain, with the processing and display software available as free downloads. Already used by avocational groups, RTI can serve to record monuments for research, public interpretation, and monument conservation and management. Though not a standard recording method required for most memorials, RTI can replace potentially damaging rubbing, and can tease out data otherwise lost to erosion or obstruction by lichen.

In research conducted prior to the COVID-19 pandemic, Mark Nonestied (Chapter 2) considers the unmarked areas of the previous global pandemic: the 1918 influenza that followed on from the horrors of World War I. He provides a methodology that demonstrates how these forgotten deaths can be located, using the example of Washington Monumental Cemetery, South River, New Jersey, where documentary and oral history were combined with ground-penetrating radar to demonstrate the area of burial and the maintenance of providing individual graves, not the mass grave suggested by oral history. This work is especially significant for highlighting the interstitial, overlooked areas in historic cemeteries, where a lack of formal above-ground memorials may trick visitors into thinking these are empty spaces. Thanks to Nonestied and his team's work, we know this is not the case. Indeed, the above-ground markers are often just the tip of the iceberg compared to what remains below ground. At the Monumental Cemetery, parsing out pandemic victims from other unmarked graves remains challenging, but the likely area of the cemetery is now known. The near future may see more public interest in commemorating these past pandemic victims, and this exemplary program allows this memorializing to happen.

The location and survey of historic burial grounds is a common cultural resource management project, particularly in North America. While Bob Dean and Mickey Dobbin demonstrate, like Nonestied, the importance of documentary research and ground-penetrating radar, they also used online genealogy resources and rapid survey of extant memorials in their funerary landscape to create a holistic knowledge base and define the extent of the cemetery (Chapter 3). This work can inform decision-making linked, in this case, to a road scheme affecting Elbridge Rural Cemetery, New York, but could also enable better ongoing management, public interpretation, or a base line for the development of further research. In their survey of five "orphaned" burial grounds in New Jersey, Richard W. Hunter et al. concentrate on the material evidence—rather than the documentary, with an emphasis on compiling the individuals interred at the sites (Chapter 4). The most innovative aspect of the project is the use of an Unmanned Aerial Vehicle (UAV), often referred to as a drone, to conduct a photographic survey that provided an additional layer to the data sets displayed through a GIS system. This technology presented new opportunities to display and interrogate the data in a variety of ways and via elements of the data management systems. Perhaps most interesting is that these aerial photographs provide an efficient way to map cemeteries as well as to observe differences in terrain that can influence burial placement.

"Part II. Field Recording of Monuments and Burial Ground Management" focuses on recording memorial assemblages as a whole, but with an awareness that these are situated in time and place, and with highly variable social contexts. Nevertheless, standardization in aspects of methodology has an advantage, and in the developing subfield of pet cemeteries the similarities and difference of such sites with those of human burial grounds is also explored through two innovative projects.

The extent to which recording methods have developed since the ground-breaking surveys of the 1970s, and also the attrition of that archaeological resource, is explored by Anne Giesecke and Dan Steffen (Chapter 5), who visited three New Hampshire burial grounds after almost four decades. The problems of archive survival are highlighted, together with potential applications of new techniques. This work is especially important for highlighting the rapid degradation of early American burial grounds, and should serve as a clarion call to a new generation of scholars interested in recording historic burial grounds. It is also striking how hard it is to locate some early survey data, and researchers today should ensure that their records are archived so that they can be consulted by future researchers.

One comprehensive system that has been available in the UK for a couple of decades has now been revised and expanded to be more useful Innovation and Implementation

internationally. Harold Mytum explains the logic of this system, which provides a hierarchical recording system that allows complex questions to be asked of the data (Chapter 6). Once applied across a range of sites and by different researchers, a coherent data base can be created that places memorial research alongside other artifact studies with standard recording methodologies and principles such as ceramics and glass. Trialled by both students and community groups, the system enables those interested in their local heritage to contribute to wider questions, and these efforts as well as those by heritage professionals can be digitally archived as described by Julian Richards et al. (Chapter 11). Chapter 11 includes examples of the comparative study of shifts in geological and typological preferences across the globe. They build on regional studies in Britain and Ireland that used an earlier version of the recording system, and demonstrate the system's potential that standardized recording brings.

Not all surveys can be comprehensive, and may involve complex architectural structures. Veit explores how a rapid recording method can collect substantial data sets, using the example of Kolkata India's South Park Street Cemetery (Chapter 7). Much quoted by cemetery and architectural historians, an archaeological perspective offers a distinctive insight and demonstrates how effective walkover surveys can be in obtaining, in this case, iconographic detail that complements the more obvious architectural components. Working in non-Western contexts requires cultural sensitivity, but equally descendant communities in every country have interests in their burial grounds, of which researchers and heritage managers need to be aware. Melissa A. Timo and John J. Mintz outline how African American perspectives and priorities form part of the planning, implementation, and results in managing mortuary sites in North Carolina (Chapter 8). This effort is supported by legislation—the African American Burial Ground Network Act, which gives official impetus that others may now follow, though other aspects of the implementation of engagement can be applied elsewhere even without legal basis.

Archaeologists have a tradition of researching human burial grounds and monuments, but pet cemeteries have only recently become a focus of research, so the two chapters by the leading innovators in this field are welcome. The Mikonkangas Pet Cemetery, in Oulu, Finland, has a large number of horse burials, many under mounds and marked with some form of memorial (Chapter 9). Such studies are particularly welcome as many societies are re-examining human-animal relationships. This long-term study by Tiina Äikäs et al. examined changes in the site over time, and through interviews has collected oral data to expand beyond the material remains to understand the motivation and practices in the commemoration of these treasured animals. Tourigny has adapted the memorial recording system developed by Mytum (Chapter 6) to British Innovation and Implementation

pet cemeteries, using the earliest public pet cemetery in Hyde Park, London, as a primary example but with later comparators elsewhere (Chapter 10). Using the data to examine human-animal relationships, he discovers how memorial forms may mirror those of humans, though smaller in size. In contrast, the text has a different focus and tend to have limited iconography or decoration, allowing consideration of how emotional ties between people and animals (largely dogs in this study) differ from those among human family members.

One of the challenges of historical archaeology is the deposition of archives and artifacts, and their accessibility to future generations of scholars. Witness the loss of data noted by Giesecke and Steffen. While for excavations, the volume of artefact collections and the structure of archives with a wide range of materials and formats often present challenges, for burial ground survey data, finding an institution prepared to accept the archive can be a formidable task. Moreover, the dissemination of materials and interpretations on the web has been dominated by the genealogical concerns of mainly commercial sites, some of which charge for access to particular records. We therefore have included "Part III. Archiving and Dissemination" to address some of these crucial issues.

Richards et al. tackle the application of digital recording in the field, and the allied though distinct issue of digital archiving, in reporting on the Discovering England's Burial Spaces (DEBS) project (Chapter 11). This work includes the recording system discussed by Mytum (Chapter 6) but here the focus is on whether on-site recording can be transformed into systems using phones or tablets as well as on the process of archiving data that can be formalized and streamlined to lower costs and facilitate comparison. While digital recording has not made progress to fully operative systems that community groups and others can easily operate, the archiving issues identified by Giesecke and Steffen (Chapter 5), and experienced by many working on historic memorial projects, now have a solution in a digital format, and the Archaeology Data Service now houses a number of assemblages from some of Mytum's recording projects. This digital editing and archiving for open access demonstrates how legacy data can be updated and integrated into the system, a further advantage of the various elements of this project.

Another approach to digital recording was developed by Streb et al. for the distinctive, relatively recent and contemporary Continental European cemetery memorials, applied through examples in Luxembourg (Chapter 12). The Cemetery Surveyor Application (CSA) and Web Cemetery Surveyor (WCA) were designed using open-source software, but the Android tablet application, like the DEBS trial, indicated that on-site recording had potential but also limitations. Instead, photographs supported by notes enabled PC versions of the software to operate effectively. There is

little doubt that, as IT becomes more intuitive and sophisticated, these trials will form the basis for the design of integrated digital recording, particularly for memorials like the Luxembourg examples, where text is easily read. That said, it is interesting to note that in some cases, practitioners still prefer pen and paper recording in the field to using mobile devices and apps.

Presenting the material characteristics of cemeteries on the web is often limited, even on sites dedicated to a particular burial site, such as those run by cemetery friends' groups. Some landscape features and major architectural structures are noted, but most interest is on the biographies of those interred and commemorated. Ways of integrating a material component into web sites is explored by Anna Fairley Nielsson using the Friends of St. James' Cemetery, Liverpool, UK, site as a case study (Chapter 13). Here, wider demographic representation and iconographic and typological aspects complement the traditional cemetery public interpretation tropes. The more archaeologists work with local communities in their burial ground research, the easier it will be for professionals to work with them to create interpretive materials relevant to their lives. Biographies of the deceased, as only one potential output from cemetery research, and historical archaeologists are well placed to reveal the wide range of heritage aspects they offer.

This volume provides a range of studies that showcase current cutting-edge methodologies. They reveal the range of topics within this subdiscipline, expanded to include pet cemeteries, where innovation is paying dividends. COVID-19 might have constrained activity in many places over the last couple of years, but this book will revive interest and activity within mortuary archaeology, and the editors are grateful to all contributors for their innovative efforts and their willingness to critically report them here. We learn as much from failures as from successes, and some aspects of innovation have yet to be perfected. Nevertheless, all chapters report significant new ideas and methods that are effective, albeit some aspects require further development. Some of this potential is discussed by Mytum and Veit in the conclusion, where they offer insights and suggestions about further progress that can enhance the quality and ease of data collection, analysis, and archiving. They also indicate the ways in which these improved data sets can be used to answer questions both specific to mortuary archaeology but also as part of wider historical archaeology debates and indeed across the discipline and multi-disciplinary endeavors.

This volume reveals a dynamic aspect of historical archaeology that is embracing multidisciplinary and team-based projects alongside single researcher fieldwork. The prospects for mortuary archaeology are promising, and the papers in this volume point the way based on the experiences of those at the cutting edge of innovatory practice. Indeed, we expect that Innovation and Implementation

future researchers will employ all manner of new technologies and techniques to record cemetery data. Three-dimensional recording of monuments, using artificial intelligence to identify historic carvers, employing soil chemistry to identify burial locations, and storing massive data sets in the Cloud may all be on the horizon (see Chapter 14). Gravemarkers were purposefully erected to convey information to future generations; thanks to technological and methodological innovations, more of those stories, both individual and collective, can be told and archived for future generations to access even if the original monuments decay.

Harold Mytum is Professor of Archaeology, University of Liverpool. His research interests include investigating identity and memory through settlement and mortuary evidence (seventeenth to twentieth centuries) from Britain, Ireland, and diasporic communities in North America and Australia. For over forty years, he has led projects recording graveyards and their monuments, and developed the standard method of recording monuments. His books include Recording and Analysing Graveyards (2000), Mortuary Monuments and Burial Grounds of the Historic Period (2004), and Death Across Oceans: Archaeology of Coffins and Vaults in Britain, America, and Australia (2018). Current research includes RTI photography (reflectance transformation imaging) on historic graveyard memorials.

Richard Veit is a Professor of Anthropology and Associate Dean of the Wayne D. McMurray School of Humanities and Social Sciences at Monmouth University. At Monmouth, he teaches courses on historical archaeology, North American archaeology, cultural resource management, and local history. His research interests include gravestones and burial grounds, early American material culture, vernacular architecture, and conflict archaeology. He has authored/coauthored, or edited eight books and numerous articles. His PhD is from the University of Pennsylvania.

References

- AGS (Association for Gravetone Studies). 2003. AGS Field Guide No. 7: Photographing Gravestones. Greenfield, MA., Association for Gravestone Studies.
- Deetz, J., and E. Dethlefsen. 1965. "The Doppler Effect and Archaeology: A Consideration of the Spatial Aspects of Seriation." *Southwestern Journal of Anthropology* 21(3): 196–206.
- ——. 1967. "Death's Head, Cherub, Urn and Willow." *Natural History* 76(3): 29–37.
- ——. 1971. "Some Social Aspects of New England Colonial Mortuary Art." *American Antiquity* 36: 30–38.

- Dethlefsen, E., and J. Deetz. 1966. "Death's Heads, Cherubs and Willow Trees: Experimental Archaeology in Colonial Cemeteries." *American Antiquity* 31(4): 502–510.
- . 1967. "Eighteenth Century Cemeteries: A Demographic View." *Historical Archaeology* 1: 40–42.
- Duval, F. Y., and I. B. Rigby. 1978. Early American Gravestone Art in Photographs. New York: Dover Publications.
- Forbes, H. M. 1927. Gravestones of Early New England and the Men Who Made Them, 1653–1800. Boston: Houghton Mifflin.
- Little, M. R. 1998. Sticks and Stones: Three Centuries of North Carolina Gravestone Art. Chapel Hill: University of North Carolina Press.
- Mould, D. R., and M. Loewe. 2006. Historic Gravestone Art of Charleston, South Carolina, 1695–1802. Jefferson, NC: McFarland.
- Tashjian, A., and D. Tashjian. 1974. Memorials for Children of Change: The Art of Early New England Stonecarving. Middletown, CT: Wesleyan University Press.