The APT Bulletin: Special Issue on Documentation

The newest issue of the APT Bulletin: The Journal of Preservation Technology focuses on the essential role of documentation in historic-preservation projects. Documentation is the first step in preserving a building; it provides the foundation of knowledge needed to identify what problems need to be addressed and to determine how to approach them. Documentation can also allow the public to access detailed information on sites otherwise unavailable to them due to location or time.

In the ever-changing field of preservation technology, the tools used to document historic structures are constantly being improved. In their guest editors’ note, James W. Shepherd, Chris Gray, and Mario Santana Quintero point out how new technologies “that have made documentation efforts more efficient, more thorough, and more expansive are opening up a realm of possibilities to document historic buildings.” The papers in this special issue highlight some of the many ways in which documentation technology is changing.

In their article entitled “Assessment of Earthquake Damage at the Washington National Cathedral,” Matthew C. Farmer, Kelsey E. Sheridan, and Jacqueline Devereaux address the problems faced in documenting the Washington National Cathedral, an
unreinforced-masonry building that was badly damaged by an earthquake in 2011. Due to the severity of the damage, the access limitations, and the sheer size of the cathedral, documentation was an intimidating undertaking. However, with existing architectural drawings, an efficient database system for identifying damage, and the use of 3D scanning, it was possible to gather comprehensive data. This data was used to develop cost estimates and prioritize restoration work.

Natalie Feinberg Lopez’s article, “History through the Elemental Analysis of Materials and pXRF,” explains the use of portable X-ray fluorescence (pXRF) units in documentation. XRF, which determines elements in the sample being tested, “can be an invaluable investigative tool for documenting material types and identifying very specific in-kind replacement requirements, patterns of deterioration, construction patterns and sequencing, past treatments and repairs, and possibly the origin of original project materials.” Feinberg Lopez has found that pXRF allows for a more accurate and speedier cost analysis and prioritization of repairs.

“Cultural-heritage Inventory Implementations: The Versatility of the Arches System” by Carrie Barton, Adam Cox, Sara Delgadillo Cruz, and Janet Hansen focuses on case studies of three separate organizations that have used the Arches computer platform. Arches is an open-access, web-based platform that allows for the collection of historic-preservation data. It can be customized to suit the needs of an organization. The article looks into HistoricPlacesLA, Cane River National Heritage Area in Louisiana, and the Armed Forces Retirement Home in Washington D.C., to describe how each of these organizations has benefited from the use of the Arches system.
Patricia Lowe Smith’s article, entitled “Digital Restoration of a South Carolina Landmark: 3D Visualization at Drayton Hall,” highlights the relationship between documentation and interpretation. In cases where a structure has been altered over time, documentation can be used to provide the public with images of how the building appeared in different eras. In the case of Drayton Hall, located in Charleston, South Carolina, the owner, the National Trust for Historic Preservation, decided not to furnish the interior. Smith discusses how she used 3D-visualization technology to create digital images of some original furnishings in order to provide visitors with a more comprehensive understanding of the property.

“A Practical Cultural Resource Survey Tool for Preservation” by Andréa Livi Smith and Martha Burtis discusses the implementation of inexpensive new technologies that make cultural-resource surveys more manageable. Known as HERA (Historic Environment Resource Assessment), the program was created in a university setting for historic-preservation students while they were conducting field surveys. HERA, like Arches, is web-based, running through WordPress.

Five authors—Mario Santana Quintero, Andreas Georgopoulos, Efstratios Stylianidis, José Luis Lerma, and Fabio Remondino—contributed an article entitled “CIPA’s Mission: Digitally Documenting Cultural Heritage.” Their paper discusses the history and role of CIPA, which is to encourage the “documentation and information management for all aspects of cultural heritage.” CIPA also promotes the advancement of documentation technology and best practices.

This special issue of the Bulletin also includes a new Practice Point, the sixteenth in the series, by Ann Harrer and Paul Gaudette entitled “Assessment of Historic Concrete
Structures.” It discusses and illustrates the best practices for documenting historic concrete structures, from research to field investigation, laboratory testing, and evaluation of those.

The book reviews for this issue were provided by book review co-editors Frances Gale and Lesley Gilmore. *English Heritage, Practical Building Conservation, Building Environment English Heritage* by Bill Martin and Chris Wood is reviewed by William B. Rose. *Engineering Iron and Stone: Understanding Structural Analysis and Design Methods of the Late 19th Century* by Thomas Boothby is reviewed by Donald Friedman.

The Association for Preservation Technology is the only international organization dedicated solely to promoting the best technology for conserving historic structures and their settings. Founded in 1968 in Québec as a joint venture between Canadian and U.S. preservationists, APT provides members with benefits that include publications, networking opportunities, conferences, training courses, and student scholarships. As a benefit of membership, APT members can, at no cost, search, browse, download, and print full-text PDF versions of past *Bulletin* articles on JSTOR, an international online digital archive. Visit [http://www.apti.org](http://www.apti.org) for more information.

The *APT Bulletin*, a peer-reviewed, scholarly journal, is a valued source for state-of-the-art information on preservation technology. Published three times a year by APT, the *Bulletin* examines all aspects of preservation technology in feature articles and book reviews, keeping readers at the leading edge of the field.

Mount Ida Press, which edits and produces the *APT Bulletin*, specializes in high-quality publications on history, architecture, and building technology. For further information about the *APT Bulletin*, please contact the editorial office in Albany, New York, at 518.426.5935 or at [info@mountidapress.com](mailto:info@mountidapress.com).
Contents

Editor’s Note
Diana S. Waite

Guest Editors’ Note
James W. Shepherd, Chris Gray, and Mario Santana Quintero

Assessment of Earthquake Damage at the Washington National Cathedral
Matthew C. Farmer, Kelsey E. Sheridan, and Jacqueline Devereaux

History through the Elemental Analysis of Materials and pXRF
Natalie Feinberg Lopez

Cultural-heritage Inventory Implementations: The Versatility of the Arches System
Carrie Barton, Adam Cox, Sara Delgadillo Cruz, and Janet Hansen

Practice Points 16: Assessment of Historic Concrete Structures
Ann Harrer and Paul Gaudette

Digital Restoration of a South Carolina Landmark: 3D Visualization at Drayton Hall
Patricia Lowe Smith

A Practical Cultural Resource Survey Tool for Preservation
Andréa Livi Smith and Martha Burtis

CIPA’s Mission: Digitally Documenting Cultural Heritage
Mario Santana Quintero, Andreas Georgopoulos, Efstratios Stylianidis, José Luis Lerma, and Fabio Remondino

Book Reviews
Frances Gale and Lesley Gilmore, Book Review Co-Editors

Building Technology Heritage Library
Mike Jackson

Vol. 48:4, 64 pp., 58 illus.