The latest issue of the APT Bulletin, Volume 40:2, features articles that were presented at the 2008 APT annual conference in Montreal. The topics include the grading of timber in historic structures, repaired versus replacement windows, geothermal heat pumps, and conservation treatments of earthen structures. Other topics include an evaluation of past terra-cotta restoration work and analytical methods of mortar analysis. This issue also features an excerpt from Theodore H. M. Prudon’s book Preservation of Modern Architecture, the 2008 winner of APT’s Lee Nelson Award.

The issue begins with Ronald W. Anthony, Kimberly D. Dugan, and Deborah J. Anthony’s article on grading protocols for structural lumber and timber in historic buildings. The authors provide an overview of the history of standards and grading rules for wood and then detail a computer-based wood-grading program that can be used by architects and engineers. Robert Score and Bradford S. Carpenter explore the thermal performance of repaired and replacement windows at the Lafayette Building in Washington, D.C., by analyzing solar heat gain, as well as conductive and radiation heat loss and gain. Two other historic buildings, Trinity Church and Byerly Hall in Boston, Massachusetts, provide case studies in Thomas Perry and Carl A. Jay’s article on the successful use of geothermal heat pumps in preservation projects.

Sven E. Thomasen’s article evaluates the 1980s restoration of terra cotta at the Atlanta City Hall in Georgia and examines key aspects of the restoration, such as maintenance practices, repair of damaged terra cotta, and joint treatments. Half-way around the world from Atlanta, the Western
Himalayas of India are the focus of Charu Chaudhry and Sandeep Sikka’s article on conservation treatments for earthen structures; through structural analysis, three measures were proposed to conserve these ancient buildings: roof restoration, wall plates, and exterior render.

The *Practice Points* column in this issue features part two of Lorraine Schnabel’s three-part series on mortar analysis. In this column Schnabel covers analytical methods including petrographic analysis, XRD and SEM/EDS, and chemical analysis.

This issue of the *APT Bulletin* contains reviews of three books, including *Mannahatta: A Natural History of New York City* by Eric Sanderson, with illustrations by Markley Boyer; *Historic Preservation Technology* by Robert A. Young; and *Preservation of Modern Architecture* by Theodore H. M. Prudon. Frances Gale, the book review editor, oversaw these reviews.

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 United States preservationists, APT provides members with benefits such as publications, networking, conferences, training courses, and student scholarships. As a benefit of membership, APT members can search, browse, download, and print full-text PDF versions of past *Bulletin* articles on JSTOR, an international online digital archive.

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.
Contents

A Grading Protocol for Structural Lumber and Timber in Historic Structures
Ronald W. Anthony, Kimberly D. Dugan, and Deborah J. Anthony

An Analysis of the Thermal Performance of Repaired and Replacement Windows
Robert Score and Bradford S. Carpenter

Sustainable Solutions for Historic Buildings: Geothermal Heat Pumps in Heritage Preservation
Thomas Perry and Carl A. Jay

Practice Points Number 7, Mortar Analysis Part 2: Analytical Methods
Lorraine Schnabel

Did it Work? Post-Restoration of Terra Cotta at Atlanta City Hall
Sven E. Thomasen

Conservation Treatments for Earthen Structures in the Western Himalayas of India
Charu Chaudhry and Sandeep Sikka

Lee Nelson Award Winner 2008: Preservation of Modern Architecture
Theodore H. M. Prudon

Book Reviews
Frances Gale, Book Review Editor

Directory of Advertisers

Endowment List

APT Membership Information

Vol. 40:2, 64 pp., 65 illus.