



The Association for Preservation Technology International  
Association pour la préservation et ses techniques  
Asociación Internacional para la Tecnología de la Preservación

For immediate release      For further information contact:  
APT 217.529.9039 or [info@apti.org](mailto:info@apti.org)  
Diana S. Waite, Editor, *APT Bulletin*  
Elizabeth Marsh, Project Manager, *APT Bulletin*  
518.426.5935 or [info@mountidapress.com](mailto:info@mountidapress.com)

### **The *APT Bulletin*: 51:4**

The latest issue of the *APT Bulletin: The Journal of Preservation Technology* is a special issue dedicated to the theme of mitigating vibration damage.

The first article in the issue, “Protecting Stained-Glass Windows from Vibrations Caused by Construction Operations” by Dean Koga, Erica Morasset, Raymond Pepi, and David Woodham, is a case study of the stained-glass windows of Congregation Shearith Israel in New York City. An attached community house was scheduled for demolition in order to accommodate a larger addition. The article discusses how a monitoring plan was put in place to protect the stained-glass windows rather than removing them prior to the start of the new construction work.

“Structural Investigations of a Seventeenth-Century Staircase and Wall Paintings at Powis Castle, Wales” by Siobhan Watts, Richard Lithgow, and Gareth Sandham examines whether vibrations from adjoining stairs were responsible for cracks appearing in the wall paintings above. The authors determined that the stair vibration did not have a correlation to the damage to the paintings. The staff at the castle was also interested in opening the stairs to visitors so that they could examine the paintings more closely. The authors also determined how many visitors can safely be on the stairs at one time.

W. (Bill) Wei and Esther Dondorp, authors of “Testing to Determine Allowable Vibration Limits at a Natural-History Museum in the Netherlands,” write about their work to define how much vibration could be allowed during a construction project without affecting the collections within the museum’s storage facility. They determined the vibration limits by placing sample objects on vibrating shelves and tables and tracking their responses.

Jerry Podany’s “Earthquake-Damage Mitigation for Museum Collections: Basic Concepts and Approaches” discusses how museums should handle the threat of seismic activity to their collections. Podany points out that many museums are unwilling to invest in earthquake-damage mitigation due to the rarity of large earthquakes, but these museums are also unwilling to accept any damage to their collections. Podany discusses several methods for protecting objects, such as clips or weighted bases, as well as base isolators, which are becoming more popular.

Douglas Rudenko, Mohamad Sharif, and Brian Warner, authors of “A Blueprint for Managing Construction-Vibration Risk at Museums,” provide a step-by-step plan about how to manage the effects of vibration in museums, using the Chinese Reception Hall at the Philadelphia Museum of Art as an example. An important part of their plan calls for clear communications among the construction team, the conservation staff, and the vibration consultant, as well as testing and establishing vibration limits. When all steps of their plan are considered, vibration damage can be mitigated.

“Vibration Mitigation and Sound Testing in SUE Hall at the Field Museum in Chicago” by Arne Johnson, Mohamed ElBatanouny, and William Simpson looks at the stabilization of the *Tyrannosaurus Rex* specimen known as SUE. SUE was moved from its original location in the museum to a new location. However, the floor of this new location transmitted vibrations much more readily than the previous location. This problem was remedied by installing new columns

and footings beneath the exhibit. The case study also looked at whether digital animations with soundtracks could cause detrimental vibration to the exhibit.

This special issue was the idea of the late Dean Koga, past APT president. Dean had attended a symposium on this topic, held in Princeton, New Jersey, in 2017, and proposed dedicating an entire issue of the *APT Bulletin* to the topic. He enlisted W. (Bill) Wei as his co-guest editor, and Bill continued in this position after Dean's death.

Book review co-editors Lesley Gilmore and Natascha Wiener secured several reviews for this issue. Richard Longstreth's *Looking beyond the Icons: Midcentury Architecture, Landscape, and Urbanism* is reviewed by David Fixler. *Reglazing Modernism: Intervention Strategies for 20th-Century Icons* by Angel Ayón, Uta Pottgiesser, and Nathaniel Richards is reviewed by Kyle Normandin. *Historic Construction and Conservation: Materials, Systems and Damage* by Pere Roca, Paulo B. Lourenço, and Angelo Gaetani is reviewed by Andreea Hamilton. *Preservation Education & Research (PER)*, published by the National Council for Preservation Education and edited by Paul Hardin Kapp, is reviewed by Frances Gale. This issue's Building Technology Heritage Library feature by Mike Jackson highlights historic publications relating to vibration.

The Association for Preservation Technology is the only international organization dedicated solely to advancing appropriate traditional and new technologies to care for, protect, and promote the longevity of the built environment and to cultivate the exchange of knowledge throughout the international community. 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> for more information. Non-APT members also have the option of joining JSTOR's "Register and Read" program, which allows a user to read one hundred articles online without charge each month.

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 Editor's Note

*W. (Bill) Wei with Erica Morasset*

Protecting Stained-Glass Windows from Vibrations Caused by Construction Operations

*Dean Koga, Erica Morasset, Raymond Pepi, and David Woodham*

Structural Investigations of a Seventeenth-Century Staircase and Wall Paintings at Powis Castle, Wales

*Siobhan Watts, Richard Lithgow, and Gareth Sandham*

Testing to Determine Allowable Vibration Limits at a Natural-History Museum in the Netherlands

*W. (Bill) Wei and Esther Dondorp*

Earthquake-Damage Mitigation for Museum Collections: Basic Concepts and Approaches

*Jerry Podany*

A Blueprint for Managing Construction-Vibration Risk at Museums  
*Douglas Rudenko, Mohamad Sharif, and Brian Warner*

Vibration Mitigation and Sound Testing in SUE Hall at the Field Museum in Chicago  
*Arne Johnson, Mohamed ElBatanouny, and William Simpson*

Book Reviews  
*Lesley Gilmore and Natascha Wiener, Book Review Co-Editors*

Building Technology Heritage Library  
*Mike Jackson*

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