

# **GLASS & GLAZING IN THE 21st CENTURY:**

## **Design and Preservation of Contemporary & Historic Architecture**

*An intensive 2-day conference/training program  
exploring the use, performance, maintenance, and  
preservation/restoration of glass in  
new and existing buildings and monuments  
followed by a 1-day program focused on stained glass*

**March 20-22, 2010**

Cambridge, Massachusetts

*Sponsored by:*

- *Technology & Conservation*
- *MIT Department of Architecture–Building Technology Program*
- *Historic Resources Committee, Boston Society of Architects/AIA*

for

- architects • engineers • architectural conservators • building restoration specialists
- construction specifiers • building maintenance supervisors • campus planners
- landscape architects • objects/sculpture conservators • construction managers/supervisors
- contractors • masons • real estate developers • operations/facilities managers and administrators  
of libraries, museums, & other cultural institutions; educational & commercial complexes;  
religious properties; cemeteries • federal, state, and local government officials responsible for  
the care, rehab, and/or continued viability of buildings & public art
- manufacturers, fabricators, and suppliers of relevant components and systems

# GLASS & GLAZING IN THE 21<sup>st</sup> CENTURY:

## Design & Preservation of Contemporary & Historic Architecture

**MARCH 20-21, 2010**  
Cambridge, Massachusetts

**This important symposium/training program will examine the basic material properties of glass, the role of thermal, mechanical, structural, and chemical properties on performance and durability, and the effects of environmental conditions on both traditional buildings and outdoor sculpture and on modern structures and their ornamentation.**

**How these material characteristics and interactions need to be considered in specifying glass for new designs and for restoration/preservation projects,** particularly as these relate to thermal efficiency of building facades, the lifespan of glass structures and the protection/maintenance of the glass building envelope, will then be probed.

**New developments in manufacturing and fabrication operations and in construction techniques** will highlight how modern, innovative processes can expand design freedom, adding visual impact and improving sustainability in new construction and new artistic projects, as well as can facilitate preservation undertakings. Architects, contractors, conservators, and other attendees also will learn about the factors, including economic ones, that can affect lead times, fabrication work, and other aspects of construction and care.

**Strategies for determining/evaluating deterioration, and procedures for replicating historic appearance** will be explored. In addition, methods for maintaining glass stability and appearance, along with energy conservation aspects and the role of glass coatings/surface treatments will be discussed.

**Case histories will look at variety of building types,** including educational, religious, and cultural institutions, commercial buildings, and government facilities, and will highlight the lessons learned, vis-a-vis **viable approaches to preservation/ maintenance planning, facilities management, and repair/ replacement programs, for both old and new structures.** Discussions of new types of glass and advances in structural design will give a preview of how the built environment's appearance may change . . . and the conservation challenges that may be presented.

*All of the sessions are designed to offer attendees valuable insights into the performance of glass and glazing in the outdoor environment . . . and the appropriate selection, specification, use, and maintenance of glass materials for existing and new buildings and artistic works.*

# CONFERENCE LECTURERS

**Christopher J. Barry**, Director, Technical Services, Pilkington NA Inc.

**Jeff Besse**, Co-Owner, LTI Smart Glass Inc.

**Colman Billings**, Managing Director, Billings Design Associates Ltd.

**Rosemarie H. Bletter**, Professor, Art History Program, City University of New York - Graduate Center

**Robert A. Brown, AIA, IIDA, LEED AP**, Principal, CBT Architects

**James F. Carpenter**, James Carpenter Design Associates Inc.

**Jill Channer, FSA, FRSA, IHBC**, Heritage Policy Advisor, Homes & Communities Agency

**Russell H. Davies, PE**, Simpson Gumpertz & Heger

**John A. Fidler, RIBA, Int.Assoc. AIA**, Staff Consultant - Preservation Technology, Simpson Gumpertz & Heger

**David N. Fixler, FAIA, LEED AP**, Principal - Design & Preservation, Einhorn Yaffee Prescott A&E, PC

**Eric M. Hines**, Associate, LeMessurier Consultants, Inc., and Professor of Practice, Tufts University

**Tim Macfarlane**, Design Partner, Dewhurst Macfarlane & Partners

**Don McCann**, Manager - Architectural Design, Viracon, Inc.

**Andrew Moor**, Principal, Andrew Moor Associates

**Henry Moss, AIA, LEED AP**, Principal, Bruner/Cott & Associates

**Liam O'Hanlon, PE**, Principal and Structural Engineer, Liam O'Hanlon Engineering, PC

**Donald Press**, General Manager, Architectural Glass, Schott North America

**Brett H. Schneider**, Associate, Guy Nordenson and Associates

**Thomas A. Schwartz, PE**, President, Building Technology Group Head, Sr. Principal, Simpson Gumpertz & Heger

**Craig Schwitter, PE**, Regional Director-North America/Principal, Buro Happold Consulting Engineers

**Stephen Selkowitz**, Head, Building Technologies Department, Lawrence Berkeley National Laboratory

**Mark P. Sexton, FAIA, LEED AP**, Principal, Krueck-Sexton

**James M. Smith**, Principal, Montgomery Smith Inc.

**Stefan Trümpler**, Director, Vitrocentre Romont (Swiss Research Centre for Stained Glass and Glass Art)

**David A. Wennekamp**, Project Executive, Ipswich Bay Glass Co.

## STAINED GLASS PROGRAM SPEAKERS

**Daniel Maher**, Principal, Daniel Maher Stained Glass

**Roberto Rosa**, Principal, Serpentino Stained & Leaded Glass, Inc.

**Julie L. Sloan**, Stained Glass Consultant, Julie L. Sloan, LLC

**Stefan Trümpler**, Director, Vitrocentre Romont (Swiss Research Centre for Stained Glass and Glass Art)

## CONFERENCE OPENING – WELCOMING REMARKS

**John Ochsendorf**, Assoc. Professor, Massachusetts Institute of Technology, Architecture Dept., Building Technology Program

**Susan E. Schur, Hon. AIA, FAPT**, Publisher-Editor, Technology & Conservation

**CONTINUING EDUCATION CREDITS** will be available – 16 units for the March 20-21, 2010 conference; 5 additional units for those attending the Monday, March 22 optional stained glass program.

**HOTEL ACCOMMODATIONS** For those who require a hotel room, a limited number of rooms are available at the Cambridge Marriott Hotel at the special rate of \$139+tax/night for a single or double room. Booking code is: tntcnca.

*If you have any questions on the conference, please contact Susan E. Schur, Tel: 617-623-4488; e-mail: ses\_tec\_con@msn.com*

# SCHEDULE

## SATURDAY, March 20, 2010

- 7:30-8:15 am Check-in
- 8:15-8:25 Welcome  
*Susan E. Schur, Hon. AIA, FAPT, Publisher-Editor, Technology & Conservation, and John Ochsendorf, Assoc. Professor, MIT, Architecture Dept., Building Technology Program*
- 8:25-9:25 The Structure of Transparency: Light in the Public Realm  
*James F. Carpenter, James Carpenter Design Associates Inc.*
- 9:25-10:15 Perspectives – The Conservation of Glass and Glazing Over the Past Decades  
*Jill Channer, FSA, FRSA, IHBC, Heritage Policy Advisor, Homes & Communities Agency*
- 10:15-10:20 Q&A
- 10:20-10:40 Coffee Break + Posters
- Developments in Technology & Materials – Properties, Structure, & Attachment**
- 10:40-11:15 Mechanical & Structural Properties  
*Tim Macfarlane, Design Partner, Dewhurst Macfarlane & Partners*
- 11:15-11:30 Insulating Glass (IG) Unit Performance  
*Thomas Schwartz, PE, President/Building Technology Group Head/Senior Principal, Simpson Gumpertz & Heger*
- 11:30-11:45 The Truth about the John Hancock Glass Failure and Lessons Learned  
*Thomas Schwartz, PE, President/Building Technology Group Head/Senior Principal, Simpson Gumpertz & Heger*
- 11:45-12:15 Testing & Evaluation of Glass including thermal performance of glazing systems  
*Colman Billings, Managing Director, Billings Design Associates Ltd.*
- 12:15-12:25 Q&A
- 12:25-2:00 Luncheon - MIT Faculty Club
- 2:00-2:30 Glass & the Architectural Imagination  
*Rosemarie H. Bletter, Professor, Art History Program, City University of New York – Graduate Center*
- 2:30-3:00 Structural Glazing Systems  
*Brett H. Schneider, Associate, Guy Nordenson and Associates*
- 3:00-3:20 Coffee Break + Posters

## Conservation/Preservation of Buildings/Building Types of the 19th & 20th Centuries

- 3:20-3:50 Glass Conservatories, including the Enid Haupt Greenhouse, Bronx Botanical Gardens  
*Liam O’Hanlon, PE, Principal and Structural Engineer, Liam O’Hanlon Engineering, PC and James M. Smith, Principal, Montgomery Smith Inc.*
- 3:50-4:05 Museum Buildings I  
*Brett H. Schneider, Associate, Guy Nordenson and Associates*
- 4:05-4:20 Museum Buildings II - including the British Museum and the Smithsonian  
*Craig Schwitter, PE, Regional Director-North America/Principal, Buro Happold Consulting Engineers*
- 4:20-4:45 Josep Lluís Sert: Holyoke Center, Harvard University  
*Henry Moss, AIA, LEED AP, Principal, Bruner/Cott & Associates*
- 4:45-5:00 Repositioning Late 20th Century Buildings  
*Robert A. Brown, AIA, IIDA, LEED AP, Principal, CBT Architects*
- 5:00-5:15 Designing Structural Glass for Renovations  
*Eric M. Hines, Associate, LeMessurier Consultants, Inc., and Professor of Practice, Tufts University*
- 5:15-5:30 Installer’s Viewpoint  
*David A. Wennekamp, Project Executive, Ipswich Bay Glass Co.*
- 5:30-6:05 The Dramatic Changes in Glass Decoration Techniques  
*Andrew Moor, Principal, Andrew Moor Associates*
- 6:05-6:20 Q&A
- 6:20-8:00 Reception - The Cambridge Marriott Hotel

## SUNDAY, March 21, 2010

- 7:30-8:00 am Film  
**New Technologies, New Methods of Retaining/Achieving Architectural Concepts**
- 8:00-8:30 am Glass and Material Transformation in

Sunday, March 21 schedule continued from previous page.

- Contemporary Architecture  
*David N. Fixler, FAIA, LEED AP, Principal - Design & Preservation, Einhorn Yaffee Prescott A&E, PC*
- 8:30-9:15 am Manufacturing Developments & Fabrication Techniques/Limitations  
*Christopher J. Barry, Director, Technical Services, Pilkington NA Inc.*
- 9:15-10:00 Energy and Sustainability Aspects of Glass/Glazing: Realistic Expectations  
*Stephen Selkowitz, Head, Building Technologies Department, Lawrence Berkeley National Laboratory*
- 10:00-10:15 Q&A
- 10:15-10:30 Coffee Break + Posters
- 10:30-10:50 Coatings on Glass & Fritting  
*Don McCann, CSI, Manager-Architectural Design, Viracon, Inc.*

### **Bringing Glass into 21st Century Architectural Design & Ornamentation**

- 10:50-11:20 Innovative Projects - I  
*Tim Macfarlane, Design Partner, Dewhurst Macfarlane & Partners*
- 11:20-11:50 Insulated Architectural Glass with Special Coatings, Interlayers, & Insert Materials  
*Donald Press, General Manager, Architectural Glass, Schott North America*
- 11:50-12:10 Q&A
- 12:10-2:00 Luncheon - MIT Faculty Club
- 2:00-2:25 Smart Glass  
*Jeff Besse, Co-Owner, LTI Smart Glass Inc.*
- 2:25-3:00 Mies' Crown Hall + Spertus Institute: Case Histories of Preservation and Context  
*Mark P. Sexton, FAIA, LEED AP, Principal, Krueck-Sexton*

- 3:00-3:30 New Construction Techniques, including the Louvre, Abu Dhabi  
*Craig Schwitter, PE, Regional Director-North America/Principal, Buro Happold Consulting Engineers*
- 3:30-3:50 Coffee Break + Posters
- 3:50-4:10 Innovative Projects - II - Baha'i House of Worship for South America & other case histories  
*Russell H. Davies, PE, Simpson Gumpertz & Heger*
- 4:10-4:30 Implications of Recent Research: The Constglass Project  
*Stefan Trümpler, Director, Vitrocentre Romont (Swiss Research Centre for Stained Glass and Glass Art)*
- 4:30-4:55 How will New Materials and New Manufacturing Techniques Affect/ Impact Design and Conservation Work  
*John A. Fidler, RIBA, Int. Assoc. AIA, Staff Consultant-Preservation Technology, Simpson Gumpertz & Heger*
- 4:55-5:30 Q&A

## **MONDAY, March 22, 2010**

*Optional stained glass program.*

*(This program is offered at no additional charge for conference registrants)*

The program will start at St. Mary's Church, Cambridge, with a talk by Dan Maher, Principal, Daniel Maher Stained Glass, on the restoration of the church's Belcher glass.

We will then proceed to Bigelow Chapel, Mount Auburn Cemetery for:

- tour
- demonstration by Roberto Rosa, Serpentino Stained Glass
- talks by:
  - Julie L. Sloan, Stained Glass Consultant, and
  - Stefan Trümpler, Director, Vitrocentre Romont.

## **CONFERENCE SESSIONS**

The conference venues will be on the MIT campus in Cambridge, Massachusetts. The Wong Auditorium where the conference sessions will be held is easily reached by public transportation. (There is very limited parking available near this site, which is one block from Kendall Square.) A map showing the venue locations will be sent to registrants.

**Hotel accommodations are attendees' responsibility.** However, a limited number of rooms at the nearby Cambridge Marriott Hotel are available at the special rate of \$139 (+tax) per night (single or double room). Rate valid until Feb. 26. To reserve a room, call the Cambridge Marriott Hotel at 617-252-4412 and request the Technology & Conservation Mar.'10 rate – group code TNCTNCA, or on-line using this code.

## **CONTINUING EDUCATION CREDITS**

AIA members attending the conference on Mar. 20-21, 2010 will earn 16.25 HSW/Learning Units and 12.75 sustainability credits. (An additional 5.5 HSW/LUs will be earned by those also attending the optional Mar. 22 program.) Non-AIA members will be able to receive a certificate of attendance for CE credits.

## **REGISTRATION FEE**

Conference fee: \$435/person prior to Jan.30, 2010, \$510/person after Jan. 30, 2010. Registration form is on the next page.

**Questions? Contact T&C, tel: 617-623-4488; e: ses\_tec\_con@msn.com**

# **REGISTRATION FORM**

# **GLASS & GLAZING IN THE 21st CENTURY:**

## **Design and Preservation of Contemporary & Historic Architecture**

### **Saturday, March 20–Sunday, March 21, 2010**

<u>Prior to Jan. 30, 2010</u>	<u>After Jan. 30, 2010</u>	<u>Amount</u>
\$435/person	\$510/person . . . . .	\$ _____

*Basic fee covers:*

- the 8:00am–6:00pm conference program – Sat., March 20 & Sun., March 21, 2010
- the March 20 and March 21 luncheons, and
- the Saturday evening, March 20, reception

*Please indicate any special accessibility or dietary needs:*

\_\_\_\_\_ vegetarian meals \_\_\_\_\_ other needs

Guest tickets for the March 20 reception can be purchased @ \$50/ticket . . . . . \$ \_\_\_\_\_

**Optional Stained Glass Program Mon., March 22** – no charge for persons registered for the conference

\_\_ I would like to attend the stained glass program \_\_\_\_\_

**TOTAL . . . . . \$ \_\_\_\_\_**

Check for \$ \_\_\_\_\_ U. S. funds (drawn on a U. S. A. bank) for registration fee (and for any guest tickets for the Sat., March 20, reception) is enclosed. Check should be made payable to: The Technology Organization, Inc.

***Please register me (us) for the conference:***

Name(s) \_\_\_\_\_  
 Title \_\_\_\_\_  
 Organization \_\_\_\_\_  
 Address \_\_\_\_\_  
 City, State, Zip (Postal Code) \_\_\_\_\_  
 Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ e-mail: \_\_\_\_\_

**Each person listed on the registration must sign the following statement:**

I(we) understand and agree that the participation of Technology & Conservation, The Technology Organization, Inc., conference organizers, and cooperating organizations and individuals in the 2010 “Glass and Glazing in the 21st Century” conference is limited to providing educational background and guidance; that all transportation, accommodations, tour, and other arrangements in connection with this Conference are under the exclusive control of others and that Technology & Conservation, The Technology Organization, Inc., conference organizers, and cooperating organizations and individuals have no liability or responsibility whatsoever for the death of any person or for any loss, expense, delay, injury, or other damage to any person or property (however occurring) on, during, and/or in relation to this “Glass and Glazing in the 21st Century” conference and the information furnished.

Signature(s) \_\_\_\_\_ Date \_\_\_\_\_

***Return this form, with check (made payable to The Technology Organization, Inc.), to:  
Technology & Conservation, 76 Highland Avenue, Somerville, MA 02143***