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October 16–19, 2003

Omni Hotel

San Francisco



# Connecting the Dots

Understanding the Emerging  
Digital Building Process

Presented by

The American Institute  
of Architects

Technology in  
Architectural Practice

An AIA Knowledge Community

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# Overview

A shared building model, which digitally captures all project information and makes it available to the entire project team throughout the life cycle of a building, is widely seen as the Next Big Thing in information technology for design and construction. What does it mean to the traditional relationships between architects, builders, and owners? In this brave new paperless world of design, can the architect reign supreme by controlling the project information?

Design and building have become information-intensive activities, with every project generating a huge mass of data in a bewildering array of formats: reports, drawings, models, correspondence, schedules, spreadsheets, product manuals. Managing the flow of project information—from inception and feasibility studies through programming and design, approvals, construction and operation of a building—is an increasingly complex chore. At the same time, clients are demanding shorter delivery schedules and better coordination between designers, builders, and facility managers.

This conference will examine how architects can position themselves at the center of the building enterprise by assuming the critical role of project information manager. We will hear from all the players in design and building: owners, contractors, designers, product manufacturers, facilities managers, and academics. Through case studies, plenary discussions, and concurrent lecture sessions, attendees will explore and discuss the technologies and strategies that will enable them to take advantage of emerging opportunities.

## Conference Themes

**RELATIONSHIPS:** How does the new digital building process change relationships in the building industry? What does it mean for the owner, the builder, the architect?

**CULTURE SHOCK:** Technology offers new roles and blurs old distinctions. Do cultural and legal constraints hold us back?

**OPPORTUNITY AND RISK:** Who owns the shared building model, and who pays for it? How does it change the traditionally fragmented design-build-operate framework?

**SKILLS:** What training do we need to meet the challenge? How will design schools prepare the architect of the future?

**TOOLS AND TRICKS:** While waiting for the Next Big Thing, what technologies can we put to use today?

**NOTES FROM THE FIELD:** What are the lessons learned from case studies and real projects?

# Agenda

## THURSDAY, OCTOBER 16, 2003

9:00–11:30 a.m. **Registration**

1:30–3:00 p.m. **A01: Opening Plenary Session: Connecting the Dots**

*Technology in Architectural Practice Advisory Group*

Jonathan Cohen, AIA  
Nancy Cheng, AIA  
Jill Rothenberg, Assoc. AIA  
Jim Bedrick, AIA  
Stephen Hagan, FAIA

This opening session will be a thought-provoking introduction to the major themes of the conference, followed by a round-table discussion with the TAP Advisory Group. The discussion will pose some of the questions this conference will address: What will a seamlessly digital process mean for the building industry? How long will it take to get there? How does it change the traditional roles and relationships for the owner, the builder, and the architect? What are the opportunities and risks? What training and skills do we need to meet the challenge?

3:15–4:45 p.m. **CONCURRENT SESSIONS**

**B01: Digital Building Delivery on Gehry Partners Projects (HSW)**

Dennis R. Shelden, *Gehry Partners*

This session presents lessons learned from 10 years' efforts to develop digitally assisted building delivery methods on Gehry Partners' projects. New technologies for building description, coupled with innovations in fabrication technology, have provided a context for radically reconsidering the ways in which project teams design and execute complex facilities. These advances in technology require a redefinition of project players' roles, responsibilities, risks, and compensation.

**B02: The Potential of Digital Building Modeling (HSW)**

Lachmi Khemlani, *Author*, *Into 3D with form.Z and form.Z 4.0: 3D Modeling, Rendering, and Animation*

Konstantinos Papamichael, *Building Technologies Program, Lawrence Berkeley National Laboratory*

Anton Harfman, AIA, *Director, Center for the Study of Practice, School of Architecture and Interior Design, University of Cincinnati*

Out: CAD. In: BIM (building information modeling). This presentation makes the case for BIM by first exploring its potential versus traditional CAD and assesses how well currently available solutions deliver on this potential. It then demonstrates how BIM can support computer applications for decision-making throughout the building life cycle and concludes by presenting an accurate, three-dimensional, component-based digital model as a possible foundation for BIM. Current and future BIM applications will be discussed, and the viability of the single Digital Building Model will be raised through videotaped interviews and footage of Zaha Hadid's first American building, the recently opened Lois and Richard Rosenthal Center for Contemporary Art in Cincinnati.

5:30–7:30 p.m. **Opening reception hosted by AIA San Francisco**

## **FRIDAY, OCTOBER 17, 2003**

7:00–8:30 a.m. **Registration**

8:30–10:00 a.m. **CONCURRENT SESSIONS**

### **C01: Multiple Software Tools, One Data Model (HSW)**

Vladimir Bazjanac, *Lawrence Berkeley National Laboratory*

Dianne Davis, *Director, Visualization Systems, AEC Infosystems*

Rich Creveling, *Consultant to Software Companies, Government Agencies, and National Contractors*

Ferenc Lazar, *Independent Software Developer and Architectural CAD Consultant*

Richard See, *Visio Product Group, Microsoft*

Steve Selkowitz, *Building Technologies Department, Lawrence Berkeley National Laboratory*

Norbert Young, FAIA, *President, McGraw-Hill Construction*

Interoperable software applications for the AEC/FM industry are now increasingly supporting work processes related to the entire building life cycle. The latest CAD, cost estimating, and energy simulation programs share a single, nonproprietary building data model and allow project team members to work together and solve problems more efficiently, at a lower cost, and provide greater benefit to the user and the client. When working with each other, the new software can dramatically expedite the work process. The speakers will show how these applications work today and what is necessary to use them on a real-life industry project.

**FRIDAY, OCTOBER 17, 2003 (continued)**

**C02: From Imagination to Fabrication**

Alex Maxim, Assoc. AIA, *Design Technologies Manager, NBBJ*

The typical approach to design and construction is linear. We may enhance the process dramatically by including our “parallel” partners. How can our business develop a holistic renaissance process incorporating all of our disciplines? The traditional design process will inevitably produce conventional design and construction. In an age of increasing complexity, our knowledge cannot encompass all disciplines, but we can improve our collaborative interaction. So we’re ready to change, but is the right software available? Based on survey results, we will review various platforms, the relative merits of each, and how they can promote our success.

**C03: Effective Digital Collaboration**

Nancy Yen-wen Cheng, AIA, *Associate Professor, University of Oregon*

Jerzy Wojtowicz, *Professor, University of British Columbia*

Larry Barrow, AIA; *Director, Digital Research and Imaging Laboratory, College of Architecture, Mississippi State University*

Mitsuo Morozumi, *Kumamoto University*

Wassim Jabi, *Assistant Professor, School of Architecture, New Jersey Institute of Technology*

What makes teams click in the office or around the globe? Design collaboration experts will explain how to orchestrate talents, tasks, and tools for productive interaction. The discussion will enable attendees to:

- Compare common misconceptions with how collaboration really occurs in a Michigan firm.
- See how international partners cultivate a creative dialogue for a competition-winning scheme.
- Find out what crucial processes and strategies best foster teamwork and public participation.
- Learn how project delivery, communication, and roles can be restructured with collaboration technology.

10:15–11:45 a.m. **D01: Software Executives on the Future of Building Design Software (HSW)**

Moderator: Jonathan Cohen, AIA, *Principal, Jonathan Cohen and Associates, and Chair, 2003 TAP Advisory Group*

Phillip G. Bernstein, FAIA, *Building Solutions Division, Autodesk*

Brad Workman, AIA, *Vice President, Bentley Building, Bentley Systems Inc.*

Gábor Bojár, *Chairman, Graphisoft, Budapest, Hungary*

In this session, major players in building design software will discuss their visions of the future and hear from users about what they need to do their jobs more effectively. The panel's themes will include the following:

- The single building model: successor to CAD?
- Support for collaboration and the Internet
- Interoperability: integration of design, construction, and operations
- Open standards versus proprietary technology
- Model integration with legacy tools

12:00–1:30 p.m. **Networking luncheon in exhibit area**

1:45–3:15 p.m. **CONCURRENT SESSIONS**

**E01: Liability and Management Risks for the Architect as Information Manager (HSW)**

Gunther Carrle, Esq., *Principal, Powell, Trachtman, Logan, Carrle, Bowman & Lombardo, PC*

Bruce D. Lombardo, Esq., *Principal, Powell, Trachtman, Logan, Carrle, Bowman & Lombardo, PC*

The movement toward a paperless project is accelerating every day. Not only are professional services starting to center around the all-electronic project, but most business communications now are conducted electronically. The wholesale acceptance of this new way of doing business imposes new professional liability exposures and dramatically changes the way in which architects must manage the storage and distribution of business information in their firms. By examining the legal issues related to information management and the contractual challenges presented by Internet-based project management, this presentation provides design professionals with useful techniques for controlling the associated risks and minimizing the potential financial exposures.

**E02: Federal Agency Initiatives and International Case Studies in 3D Object Modeling and XML Schema Development**

Stephen Hagan, FAIA, *Chair, Design and Construction Standing Committee, Federal Facilities Council, National Research Council*

William Brodt

Jack Dempsey

Bambi Tran

Steven Winters, *Steven Winters & Associates*

Arto Kiviniemi, *VTT Building and Transport*

**FRIDAY, OCTOBER 17, 2003 (continued)**

Agencies in the federal government are leading the design and construction industry in developing prototype applications for 3D object modeling and XML schema for data interchange. Initiatives at the National Institute of Building Sciences (NIBS) focused on electronic operation and maintenance manuals are engaging building product manufacturers (at the beginning of the building life cycle) and linking data through to building turnover and operations and facility management. The U.S. Coast Guard has taken the 3D object model to a new level of integration with business and mission processes. The General Services Administration will discuss progress on 3D object model prototypes as part of its \$9 billion active pipeline of capital construction. All of these initiatives are being coordinated in an industrywide resource titled the Whole Building Design Guide, developed for NIBS.

**E03: Championing Change**

Jill Rothenberg, Assoc. AIA, *Principal, ADD Inc.*

Jeff Millet, AIA, *Director, Information and Communications Technologies, The Stubbins Associates*

Jim Summers, *Einhorn Yaffee Prescott Architecture & Engineering PC*

For today's organizations to survive, change must be accepted as inevitable. Change will happen, whether it is sought out by dynamic firms looking for new opportunities or mandated by outside forces and only grudgingly accepted. Technology has always been a force for change; however, the magnitude of change required to keep up with next-wave technologies is an increasing challenge. Change creates risk but also provides opportunities for us as individuals, for our firms, and for our professions. Does your firm have a strategy to deal with the changes that confront our industry? Does your firm's tolerance for change clash with its need to move forward?

With compelling insight from three firms, this session will review internal and external disruptive forces and provide realistic tools to help your firm deal with the dynamics of change. You will answer key questions about your organization's change culture and develop sound strategies for responding effectively. This session will also explore the stresses associated with change and how we can address them to ensure successful implementation of new opportunities.

3:30–5:00 p.m.

**CONCURRENT SESSIONS**

**F01: Digital Age Architects: Information Master Builders? (HSW)**

Branko Kolarevic, Assoc. AIA, *Associate Professor of Architecture and Director, Digital Design Research Laboratory, University of Pennsylvania*

One of the most profound aspects of contemporary architecture is the new-found ability to generate construction information directly from design information through the new processes and techniques of digital design and fabrication. By integrating design, analysis, manufacture, and assembly of buildings around digital technologies, architects, engineers, and builders have an opportunity to create a relatively seamless digital collaborative enterprise in which architects could play a central role as information master builders. This seminar and case study presentation describes emerging ideas and provides examples of cutting-edge practices.

### **F02: How Great Designers Use Digital Design Tools (HSW)**

Kristine K. Fallon, FAIA, *President, Kristine Fallon Associates Inc.*

Case studies of notable designers, an international survey, and your experience will inform a lively discussion of how designers are now using a variety of digital design tools to produce new forms of project documentation and to blur traditional distinctions between design and construction.

This session comprises Notes from the Field, but it also touches the other conference themes: new relationships among the participants in the design process; changing cultures within design practices; the blurring of distinctions between design and construction; how architecture students are participating in these new design methods; and which digital design tools renowned designers are using in their practices today.

### **F03: Collaborative Estimating: Using the Model to Provide Fast Cost Feedback**

Jim Bedrick, AIA, *Director, Systems Integration, Webcor Technologies, Webcor Builders*

Lawrence M. Rocha, Assoc. AIA, *Vice President and Chief Information Officer, WATG*

Bill Tennyson, *GBH Macomber Co., Boston*

Rapid turnaround of cost estimates means they can inform the design rather than repair it. Hear the experiences of several architects and builders who have accomplished this by successfully integrating object-based CAD tools with in-house estimating databases. This interactive panel session will explore the techniques used and their effects on the design process and on the design itself.

6:00–9:00 pm

### **Beach Blanket Babylon**

Cost: \$75 per person, nonrefundable (7:00 p.m. show), 35-person minimum. *Must register before August 22, 2003.*

**FRIDAY, OCTOBER 17, 2003 (continued)**

An internationally acclaimed San Francisco institution, Beach Blanket Babylon is now in its 30th year of sold-out performances. It is a zany musical spoof of pop culture with extravagant costumes and outrageously huge hats. The show continually evolves its hilarious parodies of popular icons, updating its targets and adding new characters and songs every year.

**SATURDAY, OCTOBER 18, 2003**

8:30–10:00 a.m. **CONCURRENT SESSIONS**

**G01: Virtual Building Environments—Integrating Knowledge, Data, and Software for Multidisciplinary Design, Analysis, and Visualization (HSW)**

Vladimir Bazjanac, *Staff Scientist, Lawrence Berkeley National Laboratory*

Martin Fischer, *Associate Professor, Civil and Environmental Engineering and Computer Science, and Director, Center for Integrated Facility Engineering, Stanford University*

Arto Kiviniemi, *Chief Research Scientist, VTT Building and Transport*

The use of a new generation of software (based on building information models) to deal with enormous amounts of data that describe buildings and their use offers new business opportunities but also requires new skills, processes, and process flows. The design and construction industry is largely unprepared for these opportunities, and architects, engineers and other industry professionals need help in transitioning to the new paradigm.

Virtual Building Environments (VBEs) are designed to provide such help and support the design, analysis, and visualization of real-life projects over any part of the life cycle of a building. VBEs facilitate the manipulation of data used in the planning, design, construction, and operation of a building. They facilitate expert use of a group of software applications appropriate for a specific project.

The speakers will draw on real-life case studies to demonstrate a typical VBE: types of data that can be shared, new generation software that works in conjunction with each other, equipment and setup requirements, and the necessary skills and related business opportunities. All software used in the demonstrations is commercially available or free.

## **G02: Building Information Modeling**

Huw W. Roberts, AIA, *Bentley Systems Inc.*

Building Information Modeling (BIM) is the next evolution of CAD for the building industry, and it is upgrading the way that architects, engineers, contractors, and facility managers work and collaborate. Participants will learn how architects, engineers, contractors, and facility owners are benefiting from BIM around the world to design, build, and operate buildings ranging from the conventional to the largest, most complex and inspiring projects in the world. Attendees will discover how BIM can improve the quality of their work and help their business be more productive.

## **G03: Capturing Places: Mobile Tools for Site Data**

Nancy Yen-wen Cheng, AIA, *Associate Professor, University of Oregon*

Mitsuo Morozumi, *Kumamoto University*

How can we discover hidden aspects of a site? In the past, a measuring tape, camera, and sketchbook were adequate for examining sites. Now we have a wide range of digital surveying gadgets. This session will show new ways to collect, consolidate, and publish visual and spatial information for a distributed design team.

Hear about the advantages and obstacles of working with digital sketching, laser-measuring, palm-top software, Tablet PC, and photographic methods such as QuickTime Virtual Reality. We will compare results from accessible and high-end equipment and discuss crucial logistical factors for successful tool adoption.

## 10:15–11:45 a.m. **CONCURRENT SESSIONS**

### **H01: A Presentation About Nothing (alá Seinfeld): Outsourcing Services, Rethinking Processes, and Focusing on Core Competencies**

Paul Seletsky, Assoc. AIA, *Director of Technology, Davis Brody Bond LLP*

Architects have spent years chasing costly electronic technologies that merely automate existing analog techniques—without reengineering certain processes to better serve their practices and improve communications. This session examines outsourcing services, parametric design, and specific communications devices as logical, viable alternatives to present-day architectural technology implementation.

**SATURDAY, OCTOBER 18, 2003 (continued)**

**H02: Back in the Driver’s Seat: How Architects Can Regain Their Renaissance Role**

Gábor Bojár, *Chairman, Graphisoft, Budapest, Hungary*

A few centuries ago, architects acted as “master builders” and controlled all aspects of a construction project, down to the laying of the very last stone. In contrast, in today’s technological environment, skills are highly specialized and time has become the foremost constraint on a construction project.

How can we return to our roots and regain the control architects enjoyed during the Renaissance?

**H03: Life After Final Completion: The Building Model as a Tool for Operations**

Rob Paratte, *Partner, William Wilson & Associates*

Jim Bedrick, AIA, *Director, Systems Integration, Webcor Technologies, Webcor Builders*

John Igoe, *Vice President, Real Estate and Site Services, Palm Inc.*

Tom Brady, AIA, *Director, Construction Management, Letterman Digital Arts Center*

What happens to the model after final completion is certified? An accurate, intelligent model can be an invaluable tool for ongoing operations—for everything from energy conservation to marketing and leasing. Hear several forward-thinking building owners discuss their visions for extending the life of the building model beyond design and construction.

12:00–1:30 p.m. **Networking luncheon in exhibit area**

1:45–3:15 p.m. **CONCURRENT SESSIONS**

**J01: Large Firm Perspective**

Lawrence M. Rocha, Assoc. AIA, *Vice President and Chief Information Officer, WATG*

Ken Sanders, FAIA, *Gensler*

Jill Rothenberg, Assoc. AIA, *Principal, ADD Inc.*

The biggest hurdle to the profession’s and the industry’s adoption of the Building Information Model will be the change of process. To fully leverage the advantages of this technology, we will have to redesign the way we work and respond to the shifts

of responsibilities and liabilities. Those who adapt first will be ahead of the curve and in a great position to leverage changes to their advantage to do more with less. Several groups have joined to explore the possibilities. This session will explore what some groups are doing and what they're learning.

### **J02: Shared Model Case Study: Letterman Digital Arts Center**

Tom Brady, AIA, *Director, Construction Management, Letterman Digital Arts Center*

Mieczyslaw Boryslawski, Assoc. AIA, *President, View by View Inc.*

France Israel, *Vice President, View by View Inc.*

Phillip Williams, *Director of Systems Engineering, Webcor Builders*

The implementation of 3D technology at the Letterman Digital Arts Campus project in San Francisco has made it possible to identify and resolve construction conflicts in a timely manner. Tom Brady, director of construction of the LDAC complex, will summarize the state-of-the-art 3D modeling approach and will discuss the benefits that all members of the team have derived from their investment in 3D technology. Practical examples demonstrating the processes employed using the 3D model for resolving both design and constructability issues will be shown. (Don't miss the optional construction site tour of this project on Sunday, October 19.)

### **J03: Program and Project Information for Capital Construction—Applications and Information Schema for Owners, Their Executives, Project Managers, and Customers**

Stephen Hagan, FAIA, *Chair, Design and Construction Standing Committee, Federal Facilities Council, National Research Council*

Owners need systems, processes, and applications to integrate real-time information at the program level as well as at the project level. This session will present an overview of applications used by both public and private sector owners on billions of dollars of capital construction. How does an organization bridge the great divide between the overview "rollup" information that executives desire and the detailed, day-to-day information generated by team members at a project collaboration level?

**SATURDAY, OCTOBER 18, 2003 (continued)**

3:30–5:00 p.m. **K01: Closing Plenary Session: Lessons Learned and Next Steps**

Moderator: Jonathan Cohen, AIA, *Principal, Jonathan Cohen and Associates, and Chair, 2003 TAP Advisory Group*

Martin Fischer, *Associate Professor, Civil and Environmental Engineering and Computer Science, and Director, Center for Integrated Facility Engineering, Stanford University*

Branko Kolarevic, Assoc. AIA, *Associate Professor of Architecture and Director, Digital Design Research Laboratory, University of Pennsylvania*

Ken Sanders, FAIA, *Gensler*

Norbert Young, FAIA, *President, McGraw-Hill Construction*

We measure the value of a conference by what we take away in terms of insights gained, knowledge learned, thoughts provoked, actions spurred, and skills acquired. In this highly interactive session, a panel of distinguished presenters will distill the threads of discussion, debate, and exploration from the previous two days and consider how to apply what we've learned to advance the practice of architecture.

**SUNDAY EXCLUSIVE!**

9:30–11:30 a.m. **Construction Site Tour: Letterman Digital Arts Center (HSW)**

Go beyond the talk and see the Building Information Model in action! As a follow-up to session J02 (Shared Model Case Study: Letterman Digital Arts Center), you will tour the project site and see how the virtual model relates to the realities of construction sequence, logistics, constructability, and trade coordination. Members of the project team will show examples in which use of the model identified and resolved coordination issues *before* they generated costly rework.

The Letterman Digital Arts Center is in San Francisco's historic Presidio, with dramatic views of the Golden Gate, Alcatraz, and the Palace of Fine Arts.

# General Information

## Continuing Education

Participants may earn up to 16 AIA Continuing Education System (CES) learning units (LUs) for attending the entire conference.

## Three Ways to Register

To register online, go to [www.aia.org](http://www.aia.org) and click on "AIA Conferences and Events." Look for the green button to register online.

You can also mail or fax the enclosed registration form with payment to: TAP 2003, P.O. Box 96503, Washington, DC 20090-9998; fax, 202-879-7760. For registration questions, call 800-242-3837.

Registrations postmarked after **September 22, 2003**, will not be processed in time to be included on the attendee roster. Registration and nametags will be produced on-site. All registrants will receive a registration confirmation by mail within two weeks of registration receipt.

## Cancellation Policy

Refunds, less a \$50 cancellation fee, will be made for cancellations received in writing by Friday, **September 22, 2003**. No cancellation refund is available after September 22, 2003. Please fax your cancellation requests to the AIA Registrar at 202-626-7365.

## Accommodations

A block of rooms has been reserved at the Omni Hotel San Francisco. Reservations must be received no later than **September 22, 2003**. You are responsible for making your own reservations. To make your reservation, call the hotel at 415-677-9494. Mention that you are with the AIA TAP Conference to receive the group rate of \$195 single/double occupancy plus 14 percent state and local tax. All reservations must be guaranteed with a credit card when making the reservation. Reservations can also be made online at [www.omnihotels.com](http://www.omnihotels.com) or [www.aia.org/tap/conferences/2003](http://www.aia.org/tap/conferences/2003).

## Travel Arrangements/Airline Reservations

You may choose to use American Express Travel Services, the official AIA travel agency, to make your travel arrangements. Call 888-751-3716 between 8:30 a.m. and 5:30 p.m. EDT to make your reservations. A service fee of \$35 will be applied.

## Transportation

SuperShuttle provides shuttle service from the San Francisco airport to the Omni Hotel. The price as of March 2003 is \$13.50 each way. To obtain pricing information, call SuperShuttle at 800-638-1826. Taxi fare is approximately \$30 from the San Francisco airport to the hotel. The hotel is a short walk from the Montgomery Street BART Station.

### Rental Car

Avis is offering a discount rate to TAP conference attendees. To make reservations, contact 800-331-1600 and reference A991499, the Avis worldwide discount number.

### Special Needs

The AIA is committed to making meetings and conferences accessible to all. Please notify us at the time of registration if you have special accessibility needs or specific dietary requirements. Contact Tonya Horsley at [thorsley@aia.org](mailto:thorsley@aia.org) or 202-626-7465.

### Guests

In recognition that many professionals enjoy traveling and sharing experiences with their significant others, the AIA offers a guest rate for its conferences. Guest registration is reserved for spouses or significant others who accompany conference attendees for personal, not professional, reasons. Guests are not eligible to report learning units for professional continuing education. In most cases, guests may attend regular program events, including educational sessions, tours, and meals. Guests may also register for optional events that are ticketed separately.

### Questions

E-mail questions to [tap@aia.org](mailto:tap@aia.org). Additional brochures can be downloaded from [www.aia.org/tap/conference/2003](http://www.aia.org/tap/conference/2003).

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### FORCE MAJEURE

The performance of this Agreement by either party may be affected by force majeure (including, but not limited to, acts of God, acts of war or other acts of enemies, government regulation, disaster, strikes, floods, civil disorder, curtailment of transportation facilities, or other emergency or event beyond the control of the parties), thus making it inadvisable, unsafe, illegal, or impossible to provide required accommodations and/or meeting facilities, hold the meeting, or travel to the meeting. In event of force majeure, either party to this Agreement may terminate the Agreement upon providing written notice to the other party without penalty or obligation. Such right of termination shall not be unreasonably exercised.

In addition, the AIA reserves the right, in its sole discretion, to cancel this meeting. In that event, the AIA shall refund to you all registration fees that it has received from you for this meeting, but shall have no further obligation to you of any type, whether monetary or otherwise. Accordingly, the AIA shall in no event have any liability to you based on claims for indirect, special or consequential damages of any type whatsoever, and shall have no other obligation to you of any type except as expressly stated in the preceding sentence.

# Registration Form

## Connecting the Dots: Understanding the Emerging Digital Building Process

October 16–19, 2003 • Omni Hotel, San Francisco

**Three ways to register** (to avoid double billing, use only one method of registering):

1. Online at [www.aia.org](http://www.aia.org); click on "AIA Conferences & Events"
2. Mail this form with payment to: TAP 2003, P.O. Box 96503, Washington, DC 20090-9998
3. Fax this form with payment to 202-879-7760

Space is limited. Registrations will be accepted on a first-come-first-served basis.

FAIA    AIA    AIA Assoc.

Name \_\_\_\_\_

First name (as it should appear on badge) \_\_\_\_\_

AIA member number \_\_\_\_\_

Firm/organization \_\_\_\_\_

Street address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_ Email \_\_\_\_\_

Full name of guest \_\_\_\_\_ First name of guest (as it should appear on badge) \_\_\_\_\_

Fees include all educational programs and the opening reception (Thurs.) as listed in the agenda. Tours are not included. A separate form is required for each registrant. Mark choices in the boxes provided. A cancellation fee of \$50 will apply. Cancellation requests must be made in writing. Deadline for cancellations is September 20, 2003.

**Thursday–Saturday concurrent sessions:** Choose one from each time slot (see agenda for session descriptions).

- |                       |  |                       |  |
|-----------------------|--|-----------------------|--|
| Thurs. 3:15–4:45 p.m. | <input type="radio"/> B1 <input type="radio"/> B2                          | Sat. 8:30–10:00 a.m.  | <input type="radio"/> G1 <input type="radio"/> G2 <input type="radio"/> G3 |
| Fri. 8:30–10:00 a.m.  | <input type="radio"/> C1 <input type="radio"/> C2 <input type="radio"/> C3 | Sat. 10:15–11:45 a.m. | <input type="radio"/> H1 <input type="radio"/> H2 <input type="radio"/> H3 |
| Fri. 1:45–3:15 p.m.   | <input type="radio"/> E1 <input type="radio"/> E2 <input type="radio"/> E3 | Sat. 1:45–3:15 p.m.   | <input type="radio"/> J1 <input type="radio"/> J2 <input type="radio"/> J3 |
| Fri. 3:30–5:00 p.m.   | <input type="radio"/> F1 <input type="radio"/> F2 <input type="radio"/> F3 |                       |  |

|                                       | Advance Registration:<br>Received before 9/22/03 | On-Site Registration:<br>After 9/22/03 |
|---------------------------------------|--|--|
| AIA member                            | <input type="radio"/> \$399                      | <input type="radio"/> \$449            |
| Young Architect and Associate members | <input type="radio"/> \$299                      | <input type="radio"/> \$349            |
| Nonmember professional                | <input type="radio"/> \$499                      | <input type="radio"/> \$549            |
| Guests (meal & reception only)        | <input type="radio"/> \$200                      | <input type="radio"/> \$200            |
| Student (valid ID required)           | <input type="radio"/> \$249                      | <input type="radio"/> \$300            |
| Friday, Beach Blanket Babylon         | <input type="radio"/> N/A                        | <input type="radio"/> N/A              |
| Sunday, Letterman Digital Center Tour | <input type="radio"/> \$50                       | <input type="radio"/> \$50             |
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