

TRADITIONAL BUILDING ■ April 2018 ■ Vol. 31/No. 2 ■ Historic Tax Credit Update, Buying Guides, Columns/Doors/Windows/Hardware/Shutters/Landscape Specialties/Lighting/Roofing/Building Stone

Clem Labine's Traditional Building

THE PROFESSIONAL'S RESOURCE FOR PUBLIC ARCHITECTURE

APRIL 2018

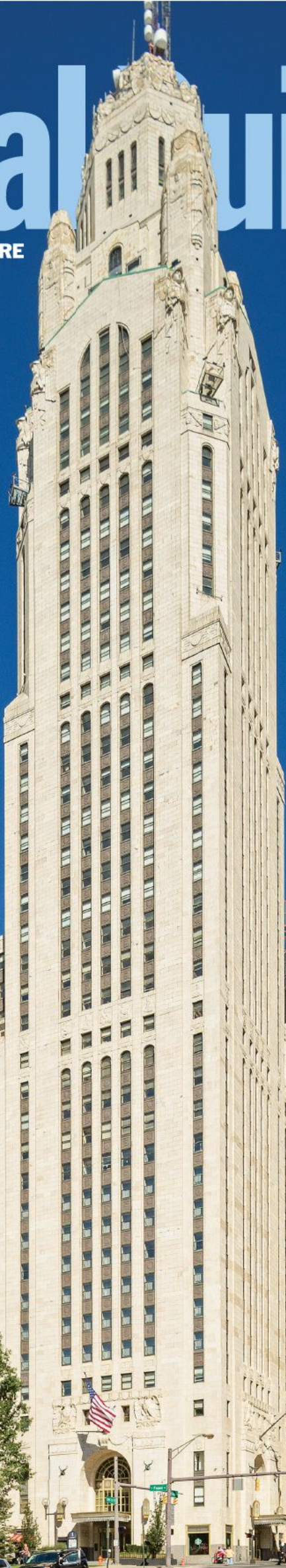
THE HISTORIC TAX CREDIT GEORGIA'S CAPITOL



Façades

Notre Dame's
Master's Program

Buying Guides



PRSR STD
U.S. Postage
PAID
Long Prairie, MN
Permit No. 67

Traditional Building
5720 Flatiron Parkway
Boulder, CO 80301
Change service requested.

us bank

WELLS FARGO

RESTORATION • REPLICATION • INNOVATION

LIGHTING SOLUTIONS



COLORADO HOUSE CHAMBER

RESTORATION: OVERALL HEIGHT 40', PHOTO BY: CALEB TKACH, AIAP

St. Louis Antique Lighting Co.

www.slalco.com

slalco@slalco.com

314-863-1414

CONTENTS

on the cover

Historic tax credits contributed to the restoration of the LeVeque Tower in Cincinnati by Schooley Caldwell Associates. Photo: Lauren K Davis/feinknopf photography. See page 12.



12



18



24



32

feature

12 HISTORIC TAX CREDIT, TAKE TWO

By Gordon H. Bock

feature

18 AN INTERNATIONAL PERSPECTIVE: TEACHING HISTORIC PRESERVATION AT NOTRE DAME

By Steven W. Semes

recent project

24 GEORGIA'S CAPITOL: A LONG-TERM PROJECT

By Martha McDonald

product report

32 THE FAÇADE OF A BUILDING

By Nancy A. Ruhling

departments

62 MATERIALS & METHODS (NEW!)

DENDROCHRONOLOGY: WILLIAM FLYNT BRINGS SCIENCE TO NEW ENGLAND'S HISTORIC BUILDINGS

By Judy L. Hayward

63 BOOK REVIEW

WHAT MAKES A CITY TICK?

Cities Alive: Jane Jacobs, Christopher Alexander, and the Roots of the New Urban Renaissance

By Michael W. Mehaffy

Reviewed by Emily O'Brien

64 THE FORUM

STOP SKYSCRAPERS IN PARIS

By Mary Campbell Gallagher

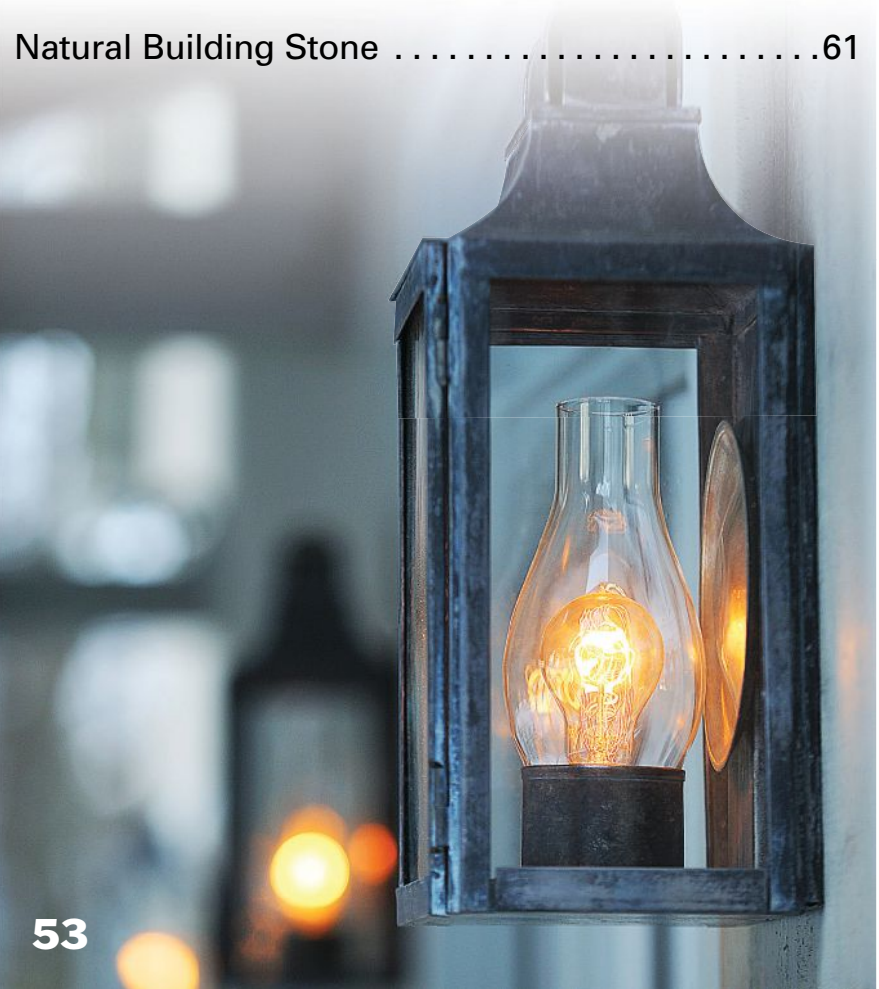
38 Advertiser Index

CONTENTS



BUYING GUIDES

Historical Products Showcase	39
Columns & Capitals	41
Doors, Entryways & Hardware	42
Windows, Shutters & Hardware	44
Storefronts & Façades	48
Landscape & Streetscape Specialties	48
Exterior Lighting	52
Slate, Tile & Metal Roofing & Roof Specialties ...	57
Bird Control	58
Exterior Molded Ornament	59
Masonry Restoration, Cleaning & Waterproofing .	59
Natural Building Stone	61



See Traditional Building online at www.traditionalbuilding.com

Durability, True Quality, & Simply Beautiful

Experience the difference!



Tavern on the Green
New York, NY



Loyola University
New Orleans, LA

LOYOLA



Daughters of the American Revolution
Washington D.C.



Carpenter Theatre
Richmond, VA

Since 1982, Parrett has offered a high quality product that is produced using the highest grade materials along with meticulous craftsmanship. Whether we manufacture using our standard parts and profiles, or if we build to your specification, you can count on Parrett quality and durability.



Parrett

Windows & Doors



WDMA
Hallmark Certified



Schedule a FREE presentation of Parrett's AIA Continuing Education seminar:

"The History of Wood Windows"



Parrett Manufacturing, Inc.

Phone: 800-541-9527

Fax: 1-877-238-2452

www.parrettwindows.com

info@parrettwindows.com

Go here for information:

www.parrettwindows.com/AIA



Enter the 24k gold lion's den.

Welcome to custom hardware artistry that brings your vision roaring to life. Drawn by hand, cast in the time-honored lost wax technique to capture the finest detail, then chiseled and polished by hand, our Lion is indisputably king. And just one of the extraordinary range of custom styles and finishes we've created for the most discerning design professionals for going on 30 years.



Fine Architectural and Custom Hardware

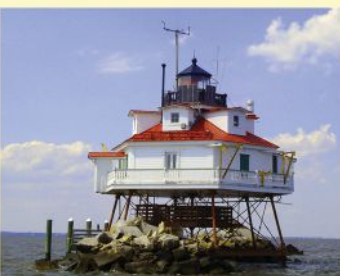
Speak with Eric Morris | 856.997.0222
emorris@ericmorrisandco.com | ericmorrisandco.com



Acrymax®

High Performance
Coating Systems

Weatherproof Protection



Proven Solutions

800-553-0523

preservationproducts.com

Traditional Building

5720 Flatiron Parkway, Boulder, CO 80301
www.traditionalbuilding.com

EDITOR Martha McDonald

CONTRIBUTING EDITORS Gordon Bock, Judy L. Hayward, Nancy A. Ruhling

EDITOR EMERITUS Clem Labine

EDITORIAL DIRECTOR Patricia Poore

PRODUCTION EDITOR Emily O'Brien

CREATIVE DIRECTOR Edie Mann **ART DIRECTOR** Mark Sorenson

GROUP PRODUCTION DIRECTOR Barbara Van Sickle **ADVERTISING COORDINATOR** Kim Hoff **PREPRESS SPECIALIST** Idania Mentana

ASSOCIATE PUBLISHER Jennifer Baldwin

MANAGING DIRECTOR - CLIENT SOLUTIONS Dean Horowitz

INFORMATION SERVICES MANAGER Dorian Henao



VICE PRESIDENT, PUBLISHER Peter H. Miller, Hon. AIA
SALES DIRECTOR Heather Glynn Gniazdowski
LEAD GENERATION MARKETING DIRECTOR Amanda Philips
DIRECTOR OF DIGITAL MARKETING LJ Lindhurst
MARKETING MANAGERS Taylor Jackson, Griffin Suber
FACILITIES MANAGER Tony Wilhelms

TRADITIONAL BUILDING CONFERENCE SERIES
EDUCATION DIRECTOR Judy L. Hayward
DIRECTOR OF OPERATIONS Carolyn Walsh



ACTIVE INTEREST MEDIA

PRESIDENT & CEO Andrew W. Clurman
SENIOR VP, CFO & TREASURER Michael Henry
CHIEF INNOVATION OFFICER Jonathan Dorn
VP OF AUDIENCE DEVELOPMENT Tom Masterson
VP, CONTROLLER Joseph Cohen
VP, IT Nelson Saenz
VP, PEOPLE & PLACES JoAnn Thomas
AIM BOARD CHAIR Efrem Zimbalist III

Subscriptions & Subscriber Service: 800-548-0193 Traditional Building, P.O. Box 3000, Denville, NJ 07834-9965

Traditional Building (ISSN # 0898-0284) is published bi-monthly by Active Interest Media, 5720 Flatiron Parkway, Boulder, CO 80301

Subscription rate to professionals in architecture, interior design, construction and landscape design in the U.S. and possessions: \$24.95/yr. (6 issues).
Not available outside the U.S. postal system.

Contents of *Traditional Building* are fully protected by copyright and must not be reproduced in any manner whatsoever without written permission from the publisher.

Copyright 2018 by Active Interest Media, 5720 Flatiron Parkway, Boulder, CO 80301; 800-826-3893; Fax: 303-440-1618 Subscription inquiries: 800-234-3797

LIST RENTAL: THE INFORMATION REFINERY 201-529-2600
Logo Licensing, Reprints and Permissions Contact Brett Petillo, Wright's Media
1-877-652-5295 aim@wrightsmedia.com



PROJECT-BASED SOLUTIONS. CLIENT-CENTRIC SUPPORT.

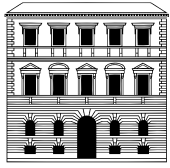
MARVIN COMMERCIAL

What's the Marvin difference? Local experts providing unparalleled architectural support, technical services and project-based solutions from concept through completion. New construction or historic renovation, Marvin products bring unmatched quality and superior performance to every job site. Our team of Architectural Project Managers do the same. Marvin's the name to trust for your next commercial project. To learn more on this historic renovation case study and find your local dealer visit [MarvinWindows.com/Lauderdale](https://www.marvinwindows.com/Lauderdale)

MARVIN 
Windows and Doors

Built around you.®

©2018 Marvin® Windows and Doors. All rights reserved. ® Registered trademark of Marvin Windows and Doors.



TRADITIONAL BUILDING CONFERENCE SERIES



We will present the
2019 Palladio Awards
at the Boscobel
Conference.



MATERIALS & METHODS

Princeton, NJ • July 18-19 • Nassau Inn

Learn traditional techniques | Network with suppliers | Earn AIA credits

The Traditional Building Conference Series delivers focused, relevant education for architects, contractors, craftspeople, designers, building owners and facilities managers in a time efficient format at beautiful historic venues. In a two-day interactive symposium you will learn from best-in-class experts and practitioners about historic preservation; adaptive use, urban infill, classical design; sustainable design building restoration/maintenance; and traditional craft. Meet the editors of *Period Homes*, *Traditional Building*, *New Old House*, *Arts*

& *Crafts Homes*, *Early Homes*, and *Old House Journal*. Network with your industry peers, clients and the technical representatives from restoration/renovation product suppliers.

The Traditional Building Conference Series is a registered provider of AIA continuing education credits. Credits for NARI, AIBD, and certain NAHB classifications can be arranged. LEED accredited professionals and interior designers should contact the education director to determine if any courses have been registered for continuing education credits with the IDCEC or the USGBC.

For more information, please visit traditionalbuildingshow.com

Registration Inquiries:
Carolyn Walsh 781.779.1560
cwalsh@aimmedia.com

Partnership Inquiries:
Griffin Suber 202.262.3401
GSuber@aimmedia.com

Education Inquiries:
Judy Hayward 802.674.6752
jhayward@aimmedia.com

Sponsorship Inquiries:
Peter H. Miller 202.256.0694
pmiller@aimmedia.com





MODERN COMFORT ORIGINAL CHARM

WINDOW INSERTS THAT INSTALL WITH NO MOUNTING BRACKETS.

Contemplate the divine, not the cold drafts and the noise outside. The latest in window technology will help the nation's oldest, most timeless windows perform like new. Indow window interior inserts block drafts using a patented silicone compression tubing that helps preserve irreplaceable handmade window frames.

Keep the comfort inside.

indowwindows.com | 503.822.3805

INSTITUTE OF CLASSICAL ARCHITECTURE & ART NEW ENGLAND

THE 2018 BULFINCH AWARDS CEREMONY AND GALA

Keynote lecture by Aric Lasher at 1:00 pm
Morning lecture by Christine G.H. Franck at 10:00 am
The Algonquin Club, Boston, Massachusetts, Saturday April 28, 2018

Reception, Dinner, and Awards Ceremony Gala to be held at
The Harvard Club, Boston, Massachusetts
Black Tie Optional. Saturday April 28, 2018 at 6:00 pm

THIS YEAR'S JURY

Marc Appleton, Thomas Pheasant, and Greg Tankersley

For information and tickets visit classicist-ne.org/bulfinch-awards-1

ANNOUNCING THE WINNERS OF THE 2018 BULFINCH AWARDS

*The New England Chapter of the ICAA
Congratulates the Winners of the Eighth Bulfinch Awards*

RESIDENTIAL (RESTORATION, RENOVATION OR ADDITION)
"Brick House" - Dell Mitchell Architects

RESIDENTIAL (NEW CONSTRUCTION) OVER 5,000 SF
"Oakledge" - Carpenter & MacNeille Architects and Builders, Inc.

RESIDENTIAL (NEW CONSTRUCTION) UNDER 5,000 SF
"Norton St Home" - Campbell/Smith Architects

INSTITUTIONAL
"Benjamin Franklin College and Pauli Murray College, Yale University"
- Robert A.M. Stern Architects LLP

LANDSCAPE ARCHITECTURE
"John L. Gardner Estate" - LeBlanc Jones Landscape Architects, Inc.

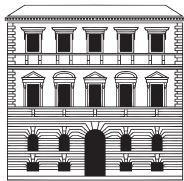
CRAFTSMANSHIP/ARTISANSHIP
"Nantucket Bunk Room" - Carpenter & MacNeille Woodworking

INTERIOR DESIGN
"Alterations to a House by the Sea" - G. P. Schafer Architect

THANK YOU TO OUR SPONSORS

PLATINUM - Foster Reeve & Associates Inc., Merrit Woodwork, Payne Bouchier, P.E. Guerin

MEDIA - Boston Design Guide, Builder + Architect, Design New England, New England Home, New Old House, Northshore Home, Period Homes, Traditional Building



TRADITIONAL BUILDING CONFERENCE SERIES

2018 PLATINUM SPONSORS

ALLIED WINDOW, INC.



Custom Invisible Storm Windows



BRONZE SPONSORS

ABATRON
ADAMS ARCHITECTURAL
CRITTALL WINDOWS
HERITAGE TILE
INNERGLASS
MON RAY
PELLA

YOUR PARTNERS IN EDUCATION

We underwrite our seminars and our technical representatives provide unique knowledge and expert solutions. These suppliers are dedicated to serving the historic restoration, renovation, and traditional building industry. Earn AIA continuing education credits, as well as credits for NARI, AIBD, and some NAHB certifications.

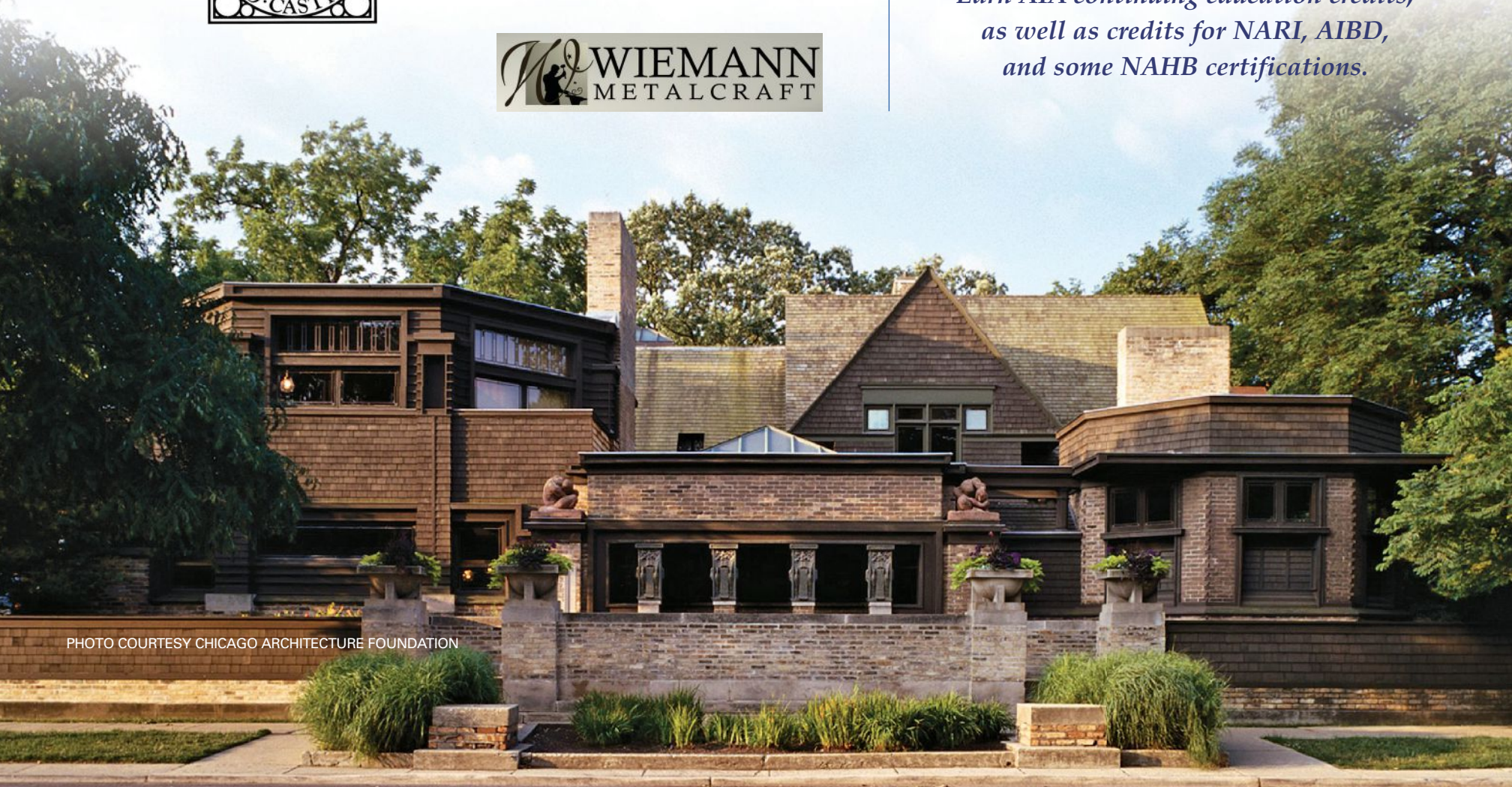


PHOTO COURTESY CHICAGO ARCHITECTURE FOUNDATION

DECORATIVE METAL

HANDRAIL

STAINLESS STEEL

FENCING

HI-DEF PLASMA

FINISHES

Birthday, holiday and family
memories are made at home.

Frame them well.



Distinctly
hand forged.

KING METALS

LOS ANGELES
DALLAS
ATLANTA
BALTIMORE

800.542.2379
KINGMETALS.COM

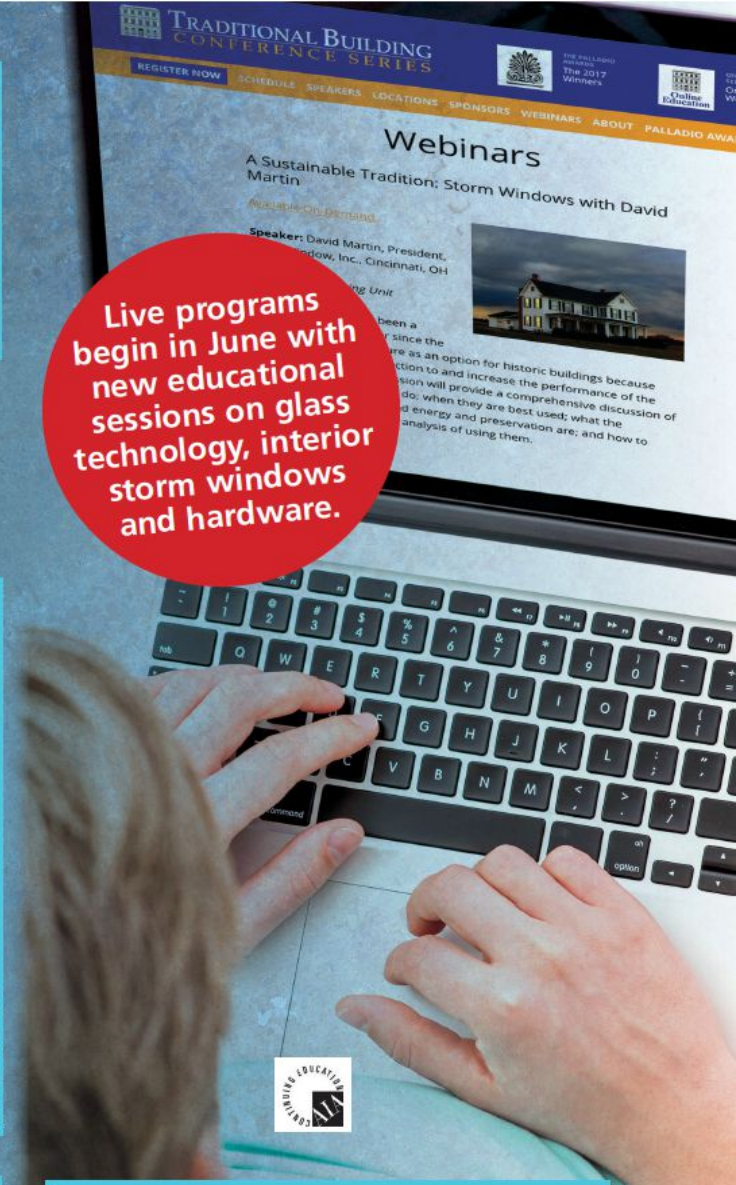


TRADITIONAL BUILDING CONFERENCE

ONLINE EDUCATION

TRADITIONAL TECHNIQUES, ADVANCED EDUCATION

Live programs begin in June with new educational sessions on glass technology, interior storm windows and hardware.



7+ AIA CREDITS FREE FOR THE TAKING

Our new online education series will provide best practices, industry insights, AIA credits and more on the topics that interest you most. Acquire new skills and evaluate products from the convenience of your computer.
traditionalbuildingshow.com/page/webinars

ON DEMAND
TRADITIONAL MATERIALS,
CONTEMPORARY METHODS: A CASE
STUDY OF CHRISTOPHER NEWPORT HALL
1 AIA HSW Learning Unit

Speakers:
Lori Snyder Garrett, FAIA,
H. Randolph Holmes, Jr. AIA,
Glavé and Holmes Architecture



1

ON DEMAND
APPLYING BUILDING CODES
TO HISTORIC BUILDINGS
1.5 AIA HSW Learning Unit

Speaker:
Theodore Vedock, AIA,
Hammel Associates Architects



2

ON DEMAND
TRADITIONAL PLASTER 101
1 AIA HSW Learning Unit

Speaker:
Patrick Webb,
The Center for Traditional Craft



3

ON DEMAND
RESTORING AMERICAN HERITAGE TILE
1 AIA HSW LU

Speaker:
Keith Bieneman, Heritage Tile
Verona, Wisconsin



4

ON DEMAND
HISTORIC MASONRY:
MORTAR AND METHOD
1 AIA HSW Learning Unit

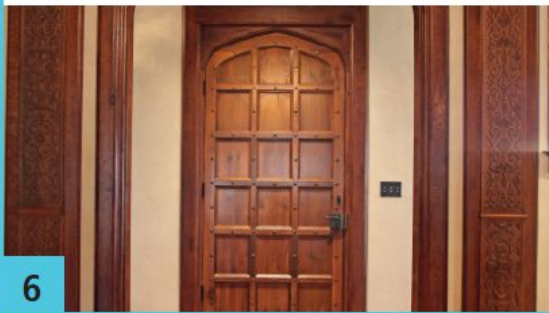
Speaker:
John Speweik,
Speweik Preservation Consultants, Inc.



5

ON DEMAND
TRADITIONAL DOORS: A MASTER CLASS
ON CRAFT, FORM, AND FUNCTION
1.25 AIA HSW Learning Unit

Speaker: Brent Hull, Hull Historical, Inc.



6

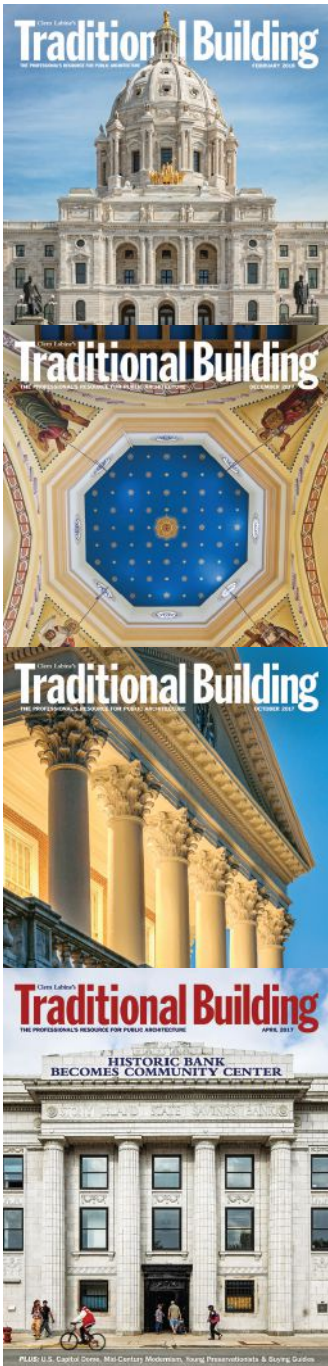
ON DEMAND
PROPERTIES AND PERFORMANCE OF
VACUUM INSULATED GLAZING

1 AIA HSW Learning Unit
Speaker:
Kyle Sword, Pilkington North America



7

If you'd like to order a
gift
 subscription
 for a colleague,
 just call 800-548-0148



W.F. Norman Corporation

{web} www.wfnorman.com {email} info@wfnorman.com {phone} (800)641-4038



The Nation's Most Complete Collection

The W.F. Norman Corporation offers quality, hand-stamped architectural sheet metal with a vast selection of ornate designs. Our 1898 Hi-Art® product line features 140 ceiling patterns and over 1,300 ornaments, including rosettes,

brackets, finials and more! We offer custom stamping and architectural sheet metal fabrication. Visit our website to see our products online, or send \$3 for a catalog to W.F. Norman Corp., P.O. Box 323, Nevada, MO 64772.

Tin Ceilings • Ornaments
 Cornices • Moldings
 Metal Shingles • Siding

{ PRODUCTS }
 { SINCE 1898 }



Visit **TraditionalBuilding.com**
 today for web exclusives
 like blogs by industry leaders & experts.

Historic Tax Credit, Take Two

Almost felled by the tax reform ax, an immensely effective preservation tool still stands—albeit under new forms and rules.

By Gordon H. Bock

NEARLY REDUCED TO HISTORY ITSELF, the federal Historic Rehabilitation Tax Credit program—the economic catalyst behind thousands of historic building transformations—eluded the congressional chopping block last fall 2017 as legislators rushed to pass the most sweeping tax overhaul in decades. Make no mistake, it was a cliff-hanger up to the very end, and while the program has had its wings clipped, compared to what it could have become—which is a vastly reduced credit or none at all—historic building developers, owners, architects and planners are calling it a win and among the most successful political turnarounds for the preservation community to date. The question now is, what happens next?

To review, since it was launched in 1976, the Federal Historic Preservation Tax Incentives program has been a powerful driver of private sector investment in the rehabilitation and reuse of historic buildings, leveraging \$89.97 billion in private investment to preserve more than 43,000 historic properties and thereby revitalize communities and create jobs. Its centerpiece, the Historic Rehabilitation Tax Credit (HTC), launched in the 1980s under the Reagan administration, offers a tax credit—a dollar-for-dollar reduction in taxes owed—for 20% of qualifying rehabilitation costs on certified historic buildings 50 years and older.

While the basic HTC program lives on and still retains the 20% credit, as of December 31, 2017, it has been modified by, in brief, 1) extending to five

years the timing for how the credit is taken; and 2) eliminating a sister incentive, the 10% tax credit for rehabilitation of non-historic buildings.

As of this writing, the modified program is still very new, with lawyers and tax professionals studying and interpreting its language. Washington watchers even anticipate further tweaks to the reform bill in coming months. While the crystal ball for the full impact of the modified HTC remains murky, opinions on its immediate consequences, as well as some long-range possibilities, are becoming clearer.

“Uncertainty is result number one,” says Donovan Rypkema, Principal at PlaceEconomics, a heritage consulting firm in Washington, DC. “Whenever there’s uncertainty, people want to wait.” Carolyn Kiernat, AIA, Principal at Page & Turnbull in San Francisco, agrees. “There’s nothing that developers like more than certainty,” she explains. “Any time there are questions about process, or procedure, or value, then the more volatility there is that, I think, collectively can adversely impact a development project.” Adds Robert D. Loversidge Jr., FAIA, President/CEO at Schooley Caldwell Architects in Columbus, OH, “Like any change in the regulations, everybody gets nervous. So, there’s an adjustment period while the program turns into whatever it will be. The good news is, it wasn’t eliminated.”

The second evident effect is the deferral of the receipts of the tax credit. “It used to be that if I do a project and spend \$1 million on qualifying rehabilitation expenditures (QREs),” summarizes Rypkema, “the day I put the project into service, I get a 20%—



Trump International Hotel, Washington, DC. The former 1890 Old Post Office, slated for demolition as early as 1928, was repurposed from granite albatross to glitzy hotel with the help of \$40-million in historic tax breaks. Photo: Wikipedia



The Transition Situation

Projects already in the works may be “grandfathered” in under the old HTC rules if, in a nutshell, they meet two requirements:

- 1:** The taxpayer has to have owned or leased the property in question by December 31, 2017 and then continuously own or lease it thereafter;
- 2:** The project has to be placed in service—that is substantially completed—by either 2020 or 2023 (dates determined by eligibility to use either the 24-month or 60-month measuring period under the Substantial Rehabilitation Test).

Tax experts are still interpreting how these rules apply to specific projects, especially regarding terms such as “owned,” “leased,” and “continuously owned.”

LeVeque Tower, Cincinnati. A 1927 early skyscraper clad in Byzantine-style Art Deco terra-cotta, the 47-story LeVeque Tower was once the fifth tallest building in the world. Photo: ©Lauren K Davis / feinknopf photography



or \$200,000—tax credit. There’s still going to be a \$200,000 tax credit, but now I only get 4% a year for five years, which makes a substantial difference.” What the fallout is from that difference depends upon whom you ask. “Everybody’s putting their pencil to the equation,” says Rypkema, “but I suspect that the deferral could diminish the value of the tax credit in the neighborhood of 30%. So whatever the credit was worth last year, it’s going to be worth maybe a third less from here on out.”

Worth is the key here because, surprising as it may be to the man on the street, HTCs, once earned, are often bought and sold—and not for their original dollar value. Using the \$1million project example that yields a \$200,000 tax credit, Rypkema explains that if he doesn’t have \$200,000 worth of tax liability, he has to stretch out the timing until he can use the credit up. “That old cliché that time is money really is true. The longer I have to wait to get paid, the less valuable that payment becomes.”

This is what has led to sharing out of tax credits in some form of syndication. “Some entity—Bank of America, for example—buys the tax credits giving me, say, 90 cents or 93 cents on the dollar for the credit because they have a high enough tax liability that they can use it all the minute they get it,” says Rypkema.

Charles A. Rhuda III, CPA, partner at Novogradac & Company LLP in Boston, a firm that specializes in historic tax credit developments, points out that because historic transactions come in all sizes, there’s no one type of buyer. “Some banks do participate in the program, but also some large consumer products companies, such as The Sherwin-Williams Company, are also very large buyers of historic credit, and a couple other corporate investors that are not financial institutions are fairly active in the market.” Sometimes small- and medium-sized deals involve individuals who have some specific tax liability situation, “and then there are regional buyers, such as a regional grocery store chain that purchases federal and state credits.”

Selling credits has value too for the developer or building owner. Kiernat cites the Exploratorium at Pier 15 in San Francisco, an adaptive reuse of a historic pier where Page & Turnbull guided the preservation, tax credits, and local entitlements for a science-based interactive museum. “This was a \$220-million project where they received \$36.6 million back in tax credits. These credits can be brought in early on through investors who are buying the tax credits. That’s money that the Exploratorium was able to put into programming, exhibit building, and hiring teachers, and an example of a non-profit organization that’s able to benefit from the credit in a big way.”

Kiernat acknowledges that the Exploratorium also spent a lot on sitework and exhibits—work that doesn’t qualify for credits. “But many developers here look at the credit as one arm of the overall financing structure of the project. I believe that there are some projects that wouldn’t go forward, or would go forward in a much different way, if they didn’t have the credit.”

Loversidge agrees. “These incentives are not a windfall for somebody; they’re really a make-it-work kind of thing that seems to affect all these projects.” He is reminded of the current adaptive reuse of a former bank building in downtown Cincinnati. “These are difficult projects—they have no flexibility, mostly vacant—and the credits make these things possible.”

Most people agree that had the HTC been modified down to 10%—actually the case in later versions of the tax bill—it would have been rendered nearly useless, but at 20% with a five-year payout, what is the possible outcome of its new diminished dollar value? Again, it depends upon whom you talk to—and where and what size they are.

As Rhuda explains, “If you’re investing a dollar today, but you’re receiving tax savings over five years, there’s a yield adjustment that goes along with that.” In the past, he says, the time between the substantial equity contribution and the allocation of the credits was fairly close. “But now if the investor is going to have to invest today and be allocated credits over five years, the pricing might be more similar to the Long-Term Low-Income Housing Tax Credit, which is received over 10 years, so people will adjust the pricing accordingly.”

Some argue that large developers deal with changing percentages, such as interest rates and construction costs, all the time, and a diminished HTC is only one part of a complex financial puzzle. Moreover, any diminishment is merely a fraction of a fraction because the HTC itself is just a 20% credit of only qualifying rehabilitation expenditures—not the expense of property acquisition, sitework, new additions, and so on.

Not all would concur, however. “What we’ve seen is that the building is the most important part of the whole project,” says Kiernat. She explains that in California and other western states, seismic concerns mean that a large percentage of the construction budget is often invested in structural work, “tens of millions of dollars just in reinforcing the structure itself, so it is helpful to have the 20% credit to offset these costs.”

A Mixed New Normal?

As luck would have it, even the most ballyhooed and non-historical part of the federal tax overhaul looks to give HTCs the proverbial haircut. “The federal tax rate going down from 35% to 21% has a direct impact on the value of HTCs,” says Rhuda, “because for each dollar invested, the investor is not saving 35 cents anymore, they’re only saving 21 cents. So, on a yield-adjusted basis, there’s an automatic reduction in the value of the credit just for the fact that a dollar of credit buys less tax savings than it did last year.”

Kiernat adds, “In addition to the lower corporate tax rate, there are changes in how depreciation of the asset is calculated, and there are limits to the amount of mortgage interest that can be deducted, so there still seems to be a lot of speculation about this.”

So, assuming the modified HTC does influence historic rehabilitation projects, will it affect some more than others? “I think it will,” opines Rypkema, “The big-league developers will figure out a way to put a deal together and make it happen—or walk away.” As he explains, “If I’m a big developer, I’ve hired accountants and tax syndicators and architects who’ve done tax credit projects before, so I can live with those kinds of time and capital costs. Plus, when I’m done with this project, I’ll do one next year—and I did one last year—so there’s much less of a learning curve.” The opposite scenario, he speculates, is the mom-and-pop hardware store on Main Street considering a \$400,000 tax-act rehabilitation. They’ll get back \$80,000 in federal credits and \$20,000 in state credits, but conceivably, this will be the only project they ever do, so the learning curve is really steep. “With all the paperwork, money, and hassle,

Why Five Years?

In a welcome bit of parliamentary Ju-Jitsu, last fall Senator Bill Cassidy (R-LA) and other Finance Committee Senators reversed the dimming fate of the federal HTC by changing not only the percentage but the terms. While the “Cassidy Amendment” restored the HTC to 20%, it also provided that it be taken over five years—a timeline that pushed some of the payments out of the 10-year budget window that every bill works on, thus becoming a cost-saving measure versus the federal budget.

The Exploratorium at Pier 15, San Francisco. Sited in the Embarcadero Historic District, the Exploratorium is housed in historic piers rehabilitated to current code and LEED Platinum certification. Photos: Bruce Damonte



those kinds of projects, particularly in states with no tax credit, might really take a hit.”

After talking to smaller developers, Kiernat has a different perspective. “If they don’t have enough taxable income to use the credit in a year, they tend to like the option of spreading it out over five years.” As she explains, these might be developers under \$5 million—perhaps individuals—who are not selling

the credit and do not have other investors coming in. “My hunch is our smaller developers are moving forward anyway. They’re often taking the credit themselves, so this change to a five-year payout doesn’t impact them as much.” This contrasts with larger projects with larger overall dollar amounts that need to have investors use the credit immediately. “They’re the ones who may pull out.”

There's also the question of states with tax credit programs versus those that don't. "In Ohio, it's really the combination of federal and state credits that is such a great thing for projects all over the state," says Loversidge. He points to the Leveque Tower in Columbus, an early, 47-story, terra-cotta clad skyscraper completed in 1927. "The expense in dealing with that 90-year-old terra-cotta skin is incredible." Plus, he says it's a narrow little tower where they had to add an extra stairway due to code requirements. "Anything that happens at the federal level could have a ripple effect at the state level, and that would be really bad."

Turns out, in many cases the impact on state programs is well beyond speculation. Renee Kuhlman, Director of Policy Outreach at the National Trust for Historic Preservation, says that the Trust is urging every one of the 35 states with HTC incentives to look at their statutes. "States need to see if either their timing is linked to the federal program, or if there are ways to increase the effectiveness of their state credits to make up for the diminishment of the federal HTC."

She notes, for example, that in Wisconsin, the department of revenue was surprised to find that their statutes tie the timing of the state tax credit to the timing of the federal credit and will now have to be taken over a five-year period. "By my counting, there are about three states that work this way." This coupling has its origins in the way many state tax credits build upon the federal program. "A lot of them are written so that if you get the federal credit, then you automatically qualify for the state credit."

Says Kiernat, "States like California are at a disadvantage because we don't have a state credit to couple with the federal credit." Nonetheless, there's a lot of support in California for a state tax credit. "In fact, in 2014 the state legislature passed a bill to create a state tax credit." Ultimately the bill did not make it past the Governor's desk, she says, but coming that far demonstrated the support that it had throughout the state.

There's already evidence of states looking to take up the slack left by the modified federal credit. "In Wisconsin, for example, the recent legislative session just increased the amount of its per-project cap from \$500 thousand to \$3.5 million," says Kuhlman, "so that's going to do great things." West Virginia raised its HTC from 10% to 25% in October, and in New York there is a movement now to de-couple their program from the federal structure as well as extend it to December 2024.

Of course, the opposite may also be afoot. Says Kuhlman, "I do think that states are also going to see a lot of push from state Republican legislators to take a page out of the federal credit playbook and say, 'You know, we need to simplify our tax code.'"

As ever, change remains the only constant. "There's some ten months left in the 115th congress," says Kuhlman, "so if they do start making technical corrections to the tax code, there may be a possibility to look at incorporating provisions in the HTC Improvement Act. Because Congress retained the program, but they didn't improve it—and there's 'always room for improvement.'"

Gordon Bock is an architectural historian, instructor with the National Preservation Institute (www.npi.org), and in-demand speaker through www.gordonbock.com.

Carson Block Building, Eureka, CA. Rehabilitated by Page & Turnbull, the 50,000-sq.ft., 19th-century building required a seismic retrofit. It is built mostly of redwood with terra-cotta panels. Photo: Schafphoto





For More Information

National Trust for Historic Preservation

www.savingplaces.com

Historic Preservation advocacy

Novogradac & Company LLP

www.novoco.com

Accountants and consultants with specialization in and reports on historic tax credit developments

National Park Service

www.NPS.gov/tps/tax-incentives.htm

Info on the federal tax incentives program

Historic Tax Credit Coalition

www.historiccredit.com

Historic Tax Credit advocacy

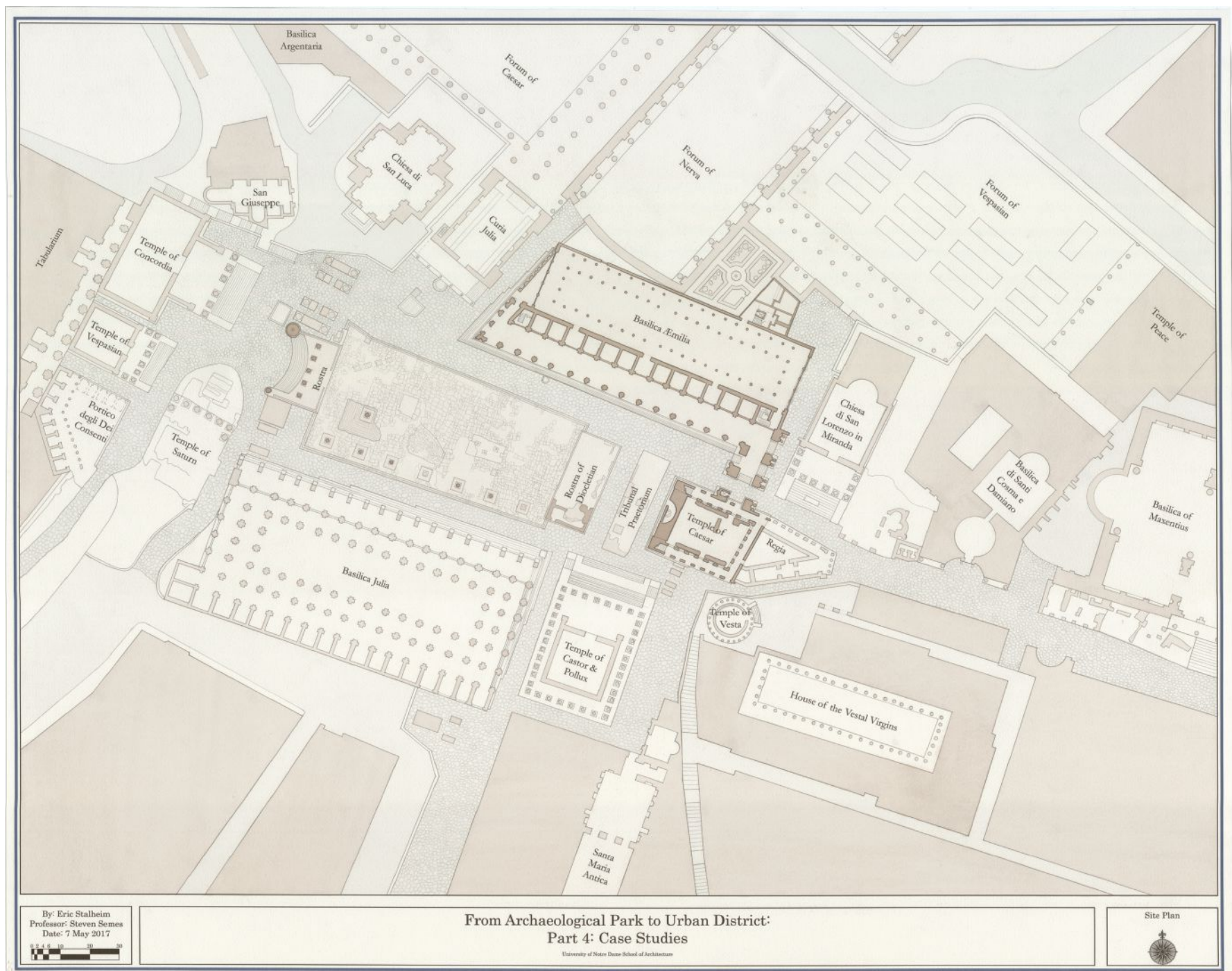


AN INTERNATIONAL PERSPECTIVE: *Teaching Historic Preservation at Notre Dame*

By Steven W. Semes

ABOVE: Historic preservation students participating in the DHARMA program directed by Professor Krupali Krusche documenting the ancient Temple of Saturn at the Forum in Rome. Students learn techniques like laser scanning and GigaPan photography, but also measure and draw by hand to develop the broadest range of skills necessary to document historic sites in the field. Photo: courtesy of University of Notre Dame School of Architecture

OPPOSITE: Eric Stalheim's Master's Thesis brought him back to Rome to prepare a conservation and development plan for the Roman Forum that seeks to re-connect the archeological area with the rest of the city. He proposed re-establishing the ancient street network and suggested preservation treatments for the principal buildings, then focused on two case studies: a graphic reconstruction of the Basilica Aemilia and a replacement structure for the Temple of the Divine Caesar, showing two different treatments based on our knowledge of the original configurations. Photo: courtesy of Eric Stalheim



THE SCHOOL OF ARCHITECTURE at the University of Notre Dame began implementing a curriculum based on classical architecture and traditional urbanism in 1989, and for the more than a quarter-century since then, it has had a measurable impact on the profession. Directly and indirectly, the School has contributed to a more open and pluralistic culture, both among practitioners and academics, and has forged links with like-minded sympathizers internationally. The teaching and research of the faculty, the professional work of alumni, and public programs like the Richard H. Driehaus Prize and Henry Hope Reed Award, have opened up room for debate that simply did not exist in years past.

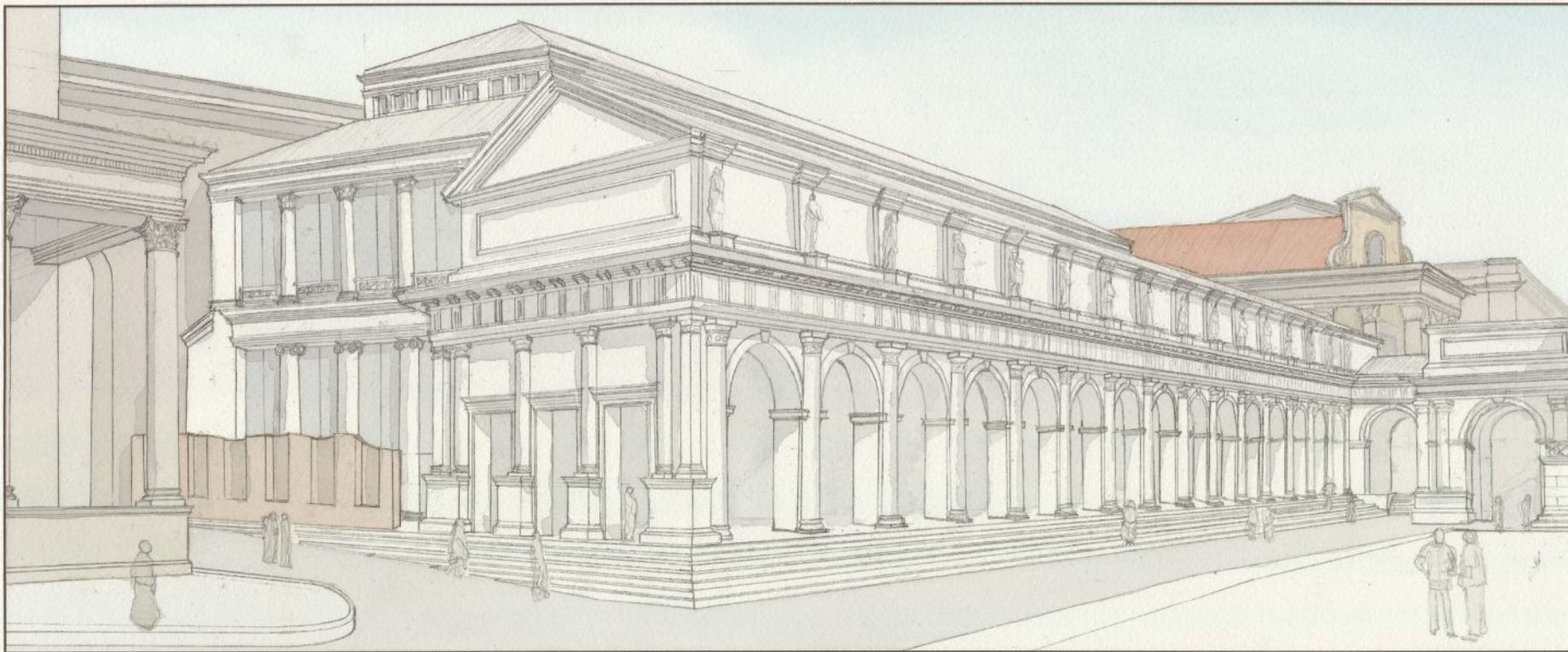
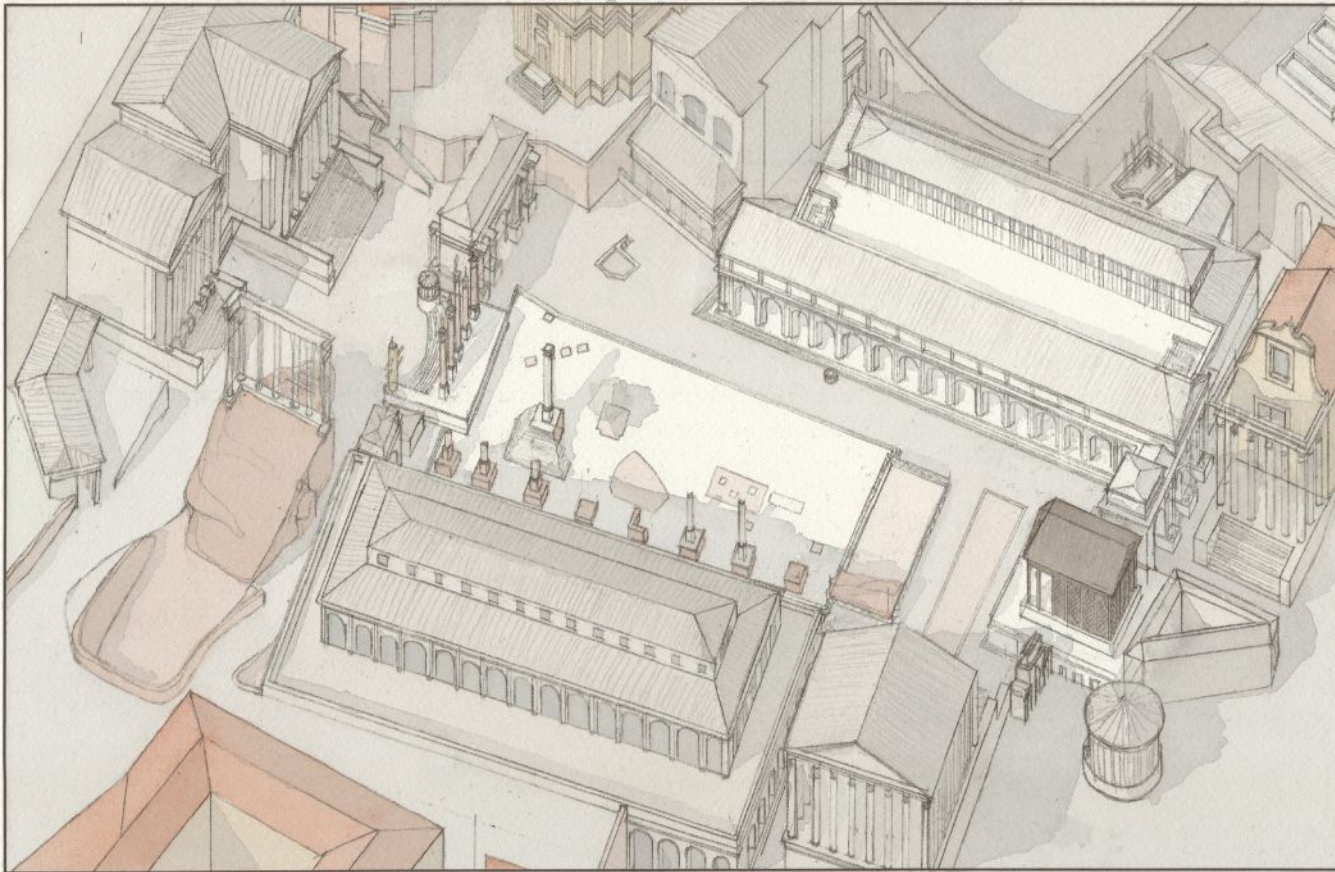
The ripple effect of the School's influence extends beyond new traditional architecture and New Urbanism to include historic preservation and a soon-to-come graduate program uniting the schools of Business, Law and Architecture to promote sustainable real estate development. Preservation has been an optional undergraduate concentration since 2007, and last year the School conferred its first Master of Science in Historic Preservation (MSHP) degree.

With nearly 40 US universities offering graduate degrees in historic preservation, Notre Dame's MSHP program distinguishes itself from its peers in two primary ways: its curriculum grounded in traditional architecture and urbanism, and its international perspective.

Teaching preservation at Notre Dame is a natural extension of its curriculum because learning how to design new traditional environments is relevant to the care of existing historic buildings, districts, and landscapes. While all of us have grown up in the age of Modern Architecture, few preservation professionals are experts on the design of pre-Modern buildings. As I wrote in an earlier article ("What's an Architrave? Announcing the New Graduate Program in Historic Preservation," *Traditional Building*, October 2014), preservation students are not typically trained in the historical formal languages that characterize the bulk of what they will be asked to preserve. Learning about historical styles and building cultures "from the inside" is essential to conserving historic places because success in the field requires knowledge of and respect for how those sites came to be, how they were made, and how their significance has evolved through time.

The best conservation practice requires the architect to identify, draw, analyze and restore the multitude of elements, both utilitarian and aesthetic, that make up our architectural heritage and, when called upon, to add to the heritage in ways that promote harmony and continuity of character rather than contrast and difference for its own sake.

Secondly, the Notre Dame program sees preservation efforts in the United States within the context of heritage conservation worldwide. Part of this arises naturally from the now 50-year-old Rome Studies Program that takes the School's undergraduates to the Eternal City for their entire third academic year and graduate students for one semester. Rome, in addition to being an essential resource for the study of classical art and design, is also a world center for heritage conservation. In addition to the hundreds of historic sites—from the grandeur of the Imperial Forums to more intimate sites like the Church of San Clemente, both just around the corner from Notre Dame's building—the city is also home to a vast public administration dedicated to the preservation of its historic sites, major university programs, training and research organizations like ICCROM and ICOM, the library and museums of the Vatican,

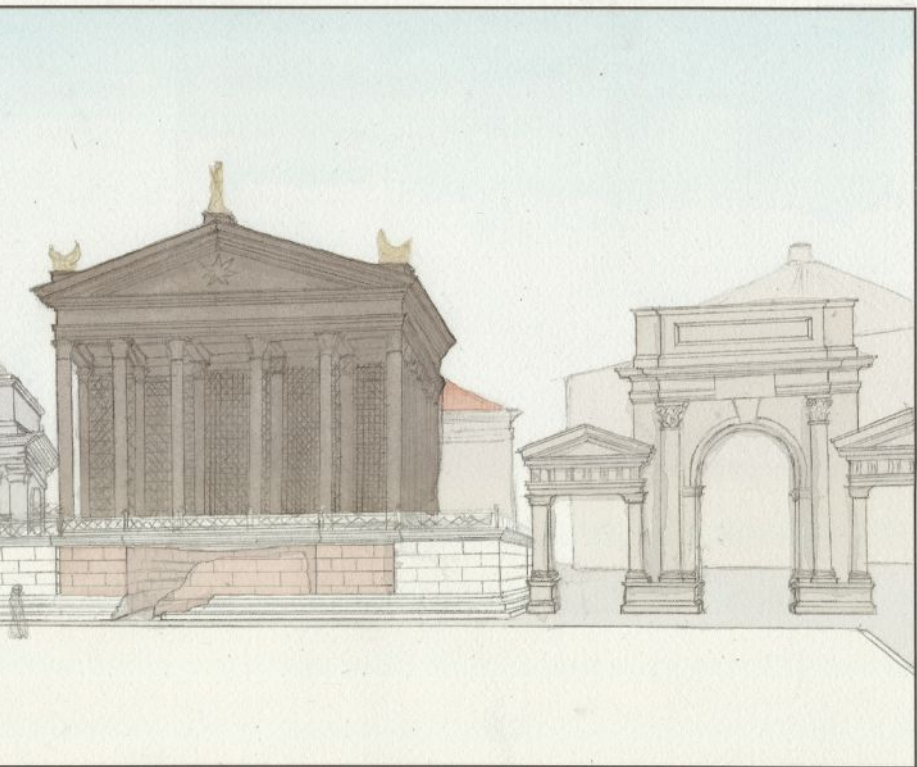
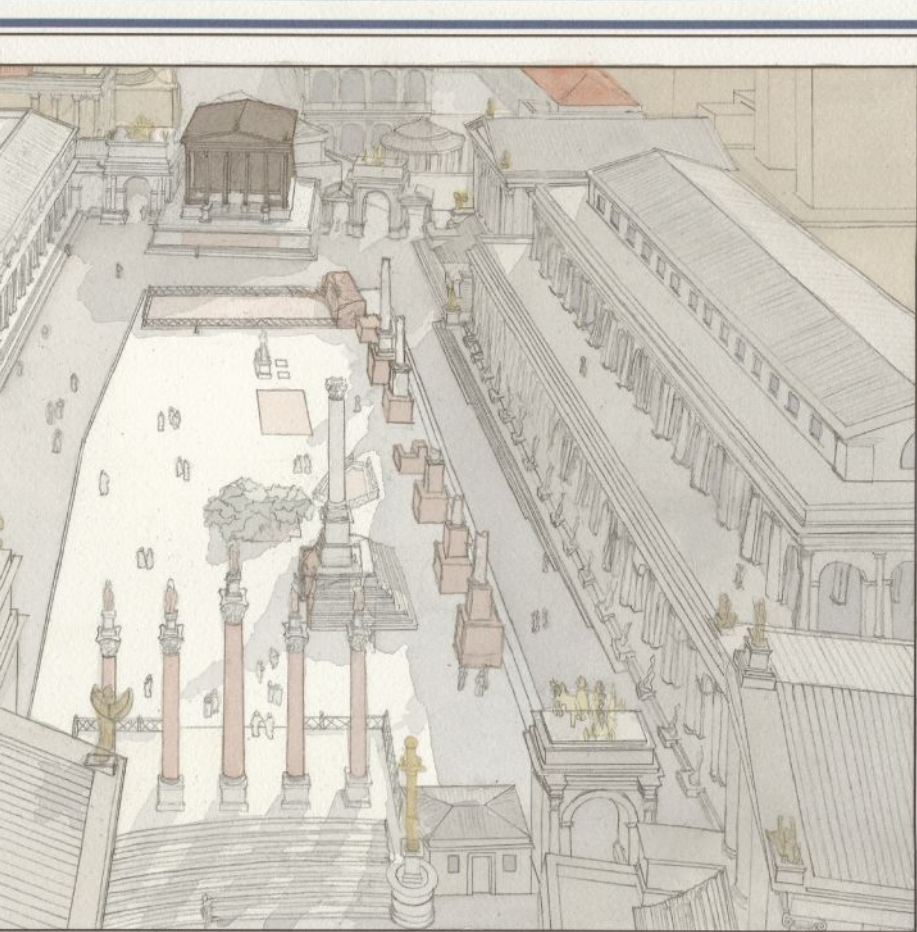


By: Eric Stalheim
 Professor: Steven Semes
 Date: 7 May 2017

From Archaeological Park to Urban District: Part 4: Case Studies

University of Notre Dame School of Architecture

Eric prepared a series of perspective views showing the proposed reconstruction of the Basilica Aemilia based on physical evidence and previous archeological investigations, and new construction at the site of the Temple occupying a similar volume and protecting the archeological remains, but built in different materials—in this case cast metal and glass—to house civic functions. These proposals addressed the question, “What do we know about the ancient structures and what treatment does that knowledge support?” They also engage questions about the degree to which ancient sites might once again be places of public life instead of isolated in “archeological parks.” Photo: courtesy of Eric Stalheim



Axonometric & Perspective Views

treatments and interpret the history of the place to the public. “We study the history of construction and look critically at the use of modern materials and techniques, emphasizing not only conservation issues but also environmental sustainability,” Vitti notes. He points out that Rome offers a unique vantage point: “Notre Dame’s Rome Global Gateway offers the opportunity to study in one of the European countries that has actively questioned the modernistic approach to conservation. Since the 1980s in Italy, a new approach to scholarship and conservation practice has emerged concerning appropriate interventions at architectural heritage sites. A key part of this attitude involves a revival of the positivistic approach of the 19th century, which based conservation practice on a deep knowledge of traditional building techniques and materials. Generations of architects have now been trained in historic techniques so that conservation practice is more respectful of the fundamental need to preserve the integrity of our built heritage.”

Another international experience open to students is Notre Dame’s DHARMA program (the acronym standing for Digital Historical Architectural Research and Material Analysis), led by the current Academic Director of the Rome Studies Program, Professor Krupali Krusche, in which architecture and conservation students employ new technologies to record historic sites like the Roman Forum and the Belvedere Courtyard at the Vatican. Using high-definition laser scanners and GigaPan photography, the team has documented the existing state of these and other sites in unprecedented detail. Traditional methods of hand-measuring and photogrammetry are also used to supplement the data gathered by digital techniques. These documentary studies have led to new understanding of the original construction and subsequent changes that have shaped these sites through the centuries, better informing us about their future preservation.

The first graduate of the new MSHP program, Eric Stalheim, was particularly affected by his experience in Rome. An Iowa native, Eric began his Notre Dame studies in 2015 with the introductory design studio course *Elements and Principles of Classical Architecture* and the seminar *History and Theory of Preservation*, followed by a semester of *Research and Documentation of Historic Sites* and a studio in *Urban Conservation*, among other courses. He traveled to Rome in the fall of 2016, where he completed another design stu-

dio project to re-urbanize the area around Rome’s famed *Bocca della Verità*. A course called *International Conservation Laboratory* began with a study of the international documents on conservation (such as the *ICOMOS Charters*) and then provided hands-on experience with professional architects and restorers working in Rome, including Paolo Vitti.

As part of this last course, Eric created “*The International Documents on Heritage Conservation: A Guide to Their Evolution and Meaning*,” a poster-size table that arranges excerpts from a dozen of the most important international statements side-by-side and in chronological order, organized according to topics ranging from *Authenticity* to *New Construction*. The documents extend from the *Athens Charter of 1931* to the *Historic England Advisory Note on Reconstruction of 2016*, and include the *US Secretary of the Interior’s Standards for the Treatment of Historic Properties of 1977*. One can read across the table’s rows to understand how any document addresses each topic or read up and down to compare how different documents address a single topic. Several prominent preservation leaders who have seen early drafts have found the matrix, as Eric calls it, a valuable resource for increasing the awareness of American preservationists about the international context in which we all work. Eric is now seeking publication of the complete matrix, a portion of which is previewed here.

The matrix allows a comparison of *ICOMOS Charters* and other documents to understand how preservation thinking has evolved over the last nine decades. It also reveals that some conventional ideas in the field have little basis in the official policy statements. For example, on the subject of new architecture in historic settings, the 2011 *Valletta Principles* call for “a continuity of composition that does not adversely affect the existing architecture but at the same time allows a discerning creativity that embraces the spirit of the place.” The documents’ increasing emphasis on intangible heritage and the use of traditional materials and techniques in restorations and infill construction makes it difficult to sustain the frequent insistence by preservation authorities on conspicuously different modern materials and forms intended to “differentiate” old and new or represent “the architecture of our time.” Thorough reading of the international guidance shows a more subtle understanding of the relation between new and old architecture and supports Professor Vitti’s emphasis on the use of traditional materials and methods.

and a host of independent professionals in preservation and restoration of all kinds. It is perhaps the world’s most extensive conservation laboratory.

Notre Dame’s Rome faculty actively uses the city as a classroom for teaching both design and conser-

vation. Visiting Professor Paolo Vitti, a Rome-based conservation architect and scholar with an international profile, teaches students to read the physical evidence of historic structures like the *Castel Sant’Angelo* to determine responsible conservation



In the spring semester 2017, Eric completed his Master's Thesis, an ambitious conservation plan for the Roman Forum that explored the relationship of the Archeological Area of Rome to the city around it. A closer examination of two ancient structures as case studies explored the potential benefits and limitations of reconstruction as a preservation treatment. Based on the premise that the best way to learn about reconstruction is to propose one, his hypothetical re-composition of the Basilica Aemilia was based on intense and wide-ranging research into the structure's history as well as Roman architecture and construction in general. For the adjacent Temple of the Divine Julius Caesar, the paucity of current knowledge about its original state led Eric to propose a new structure occupying the same space and of similar scale and style but in different materials (and protecting the archeological remains in place). In his thesis statement, Eric writes:

"This is a hypothetical proposition to learn about treatment options in order to understand what knowledge and research is required for each. It then investigates the possibilities of reconstruction as a conservation treatment. The focus on reconstruction serves as an academic exercise to integrate the past with the present without destroying the resources that make the site valuable to us and to future generations. This process requires the combination of archaeological investigation and research with architectural knowledge in order to

provide a comprehensive outline of what remains, what is known, what was, and what could be."

Similar proposals have a long history in Rome and elsewhere, and while reconstruction of ruined or non-extant buildings remains highly controversial, Eric chose to pursue the treatment hypothetically as a tool for learning about the historic site and the limitations and conditions under which reconstruction or completion might be justified. He continues:

"This proposal simply builds upon previous exploratory inquiry by taking credible theoretical reconstructions of the past and investigating what would be required to realize such a proposal. This process requires that we understand how much we know about the monument in order to make a judgment about whether there is sufficient evidence to allow for full reconstruction."

The thesis project, presented in hand-drafted watercolor-wash renderings, won the praise of faculty and guest critics. As a consequence of his Rome experience, Eric plans to pursue a career in the conservation of antiquities in Italy.

Just as the primary value of traveling abroad is to come home with a wider vision, so the experience of Rome contributes to our students' appreciation of their American heritage. Our undergraduates complete their academic year in Rome (now with a week in Paris along the way) with a one-week visit to Virginia and Washington D.C. Standing in

front of Monticello or the Lincoln Memorial with their studies in Italy fresh in their minds, they see the many European threads that have contributed to the unique American weave. Students in preservation, too, take from their understanding of international conservation theory and practice a context within which the historic preservation movement in the United States finds its place, discovering that the challenges of Charleston, Chicago or San Francisco are not so different from those of Rome, Venice or Paris. This perspective can only enrich our practice here at home.

The MSHP program, recognized by the National Council on Preservation Education, is open to students with previous degrees in architecture; alternatively, those who complete the course of study for a professional architecture degree at Notre Dame can earn the MSHP degree with one additional year of study. For more information, please consult our website: architecture.nd.edu/mshp.

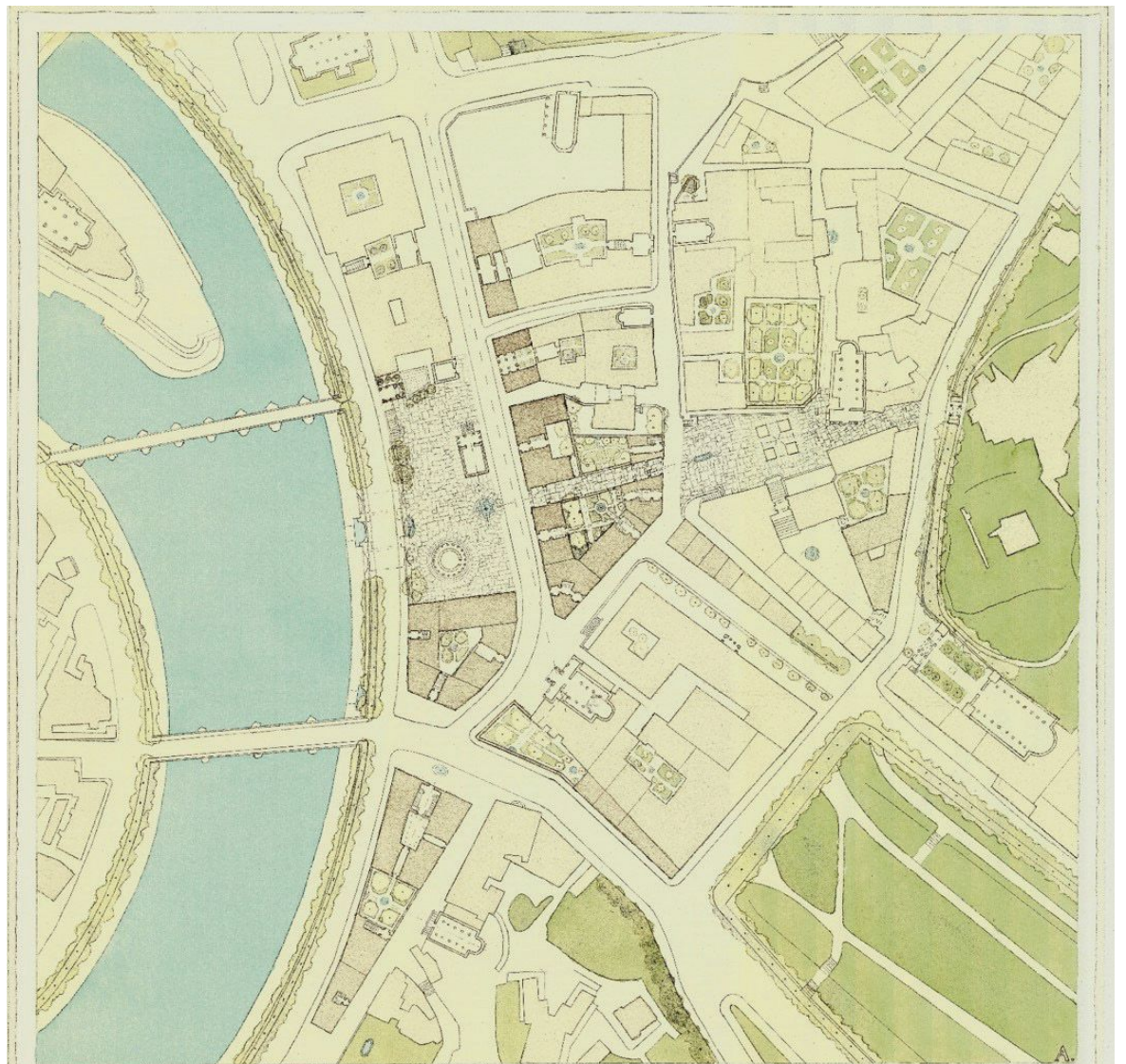
Steven W. Semes is Professor of Architecture and Director of the Graduate Program in Historic Preservation at the University of Notre Dame. He was Academic Director of the Notre Dame Rome Studies Program 2008-2011 and currently splits his teaching duties between Rome and the main campus. He is the author of The Future of the Past: A Conservation Ethic for Architecture, Urbanism, and Historic Preservation (2009) and The Architecture of the Classical Interior (2004), and has also written for many publications. He was the 2010 recipient of the Clem Labine Award.

	HERITAGE & CULTURAL SIGNIFICANCE	AUTHENTICITY	INTERPRETATION AND EDUCATION	CONSERVATION & MAINTENANCE	RESTORATION
<p>THE ATHENS CHARTER 1931</p> <p><i>THE ATHENS CHARTER FOR THE RESTORATION OF HISTORIC MONUMENTS</i></p> <p>Adopted at: The First International Congress of Architects and Technicians of Historic Monuments</p> <p>Athens, Greece</p>	<ul style="list-style-type: none"> The Conference, convinced that the question of the conservation of the artistic and archaeological property of mankind is one that interests the community of the States, which are warden of civilization, hopes that the States, acting in the spirit of the Covenant of the League of Nations, will collaborate with each other on an ever-increasing scale and in a more concrete manner with a view to furthering the preservation of artistic and historic monuments; considers it highly desirable that qualified institutions and associations should, without in any manner whatsoever prejudicing international public law, be given an opportunity of manifesting their interest in the protection of works of art in which civilization has been expressed to the highest degree and which would seem threatened with destruction. (Article 7) 	<ul style="list-style-type: none"> Proposed restoration projects are to be subjected to knowledgeable criticism to prevent mistakes which will cause loss of character and historical values to the structures. (Preamble, Point 2) 	<ul style="list-style-type: none"> The Conference, firmly convinced that the best guarantee in the matter of the preservation of monuments and works of art derives from the respect and attachment of the peoples themselves, [and] considering that these feelings can very largely be promoted by appropriate action on the part of public authorities, recommends that educators should urge children and young people to abstain from disfiguring monuments of every description and that they should teach them to take a greater and more general interest in the protection of these concrete testimonies of all ages of civilization. (Article 7) 	<ul style="list-style-type: none"> Whatever may be the variety of concrete cases, each of which are open to a different solution, the Conference noted that there predominates in the different countries represented a general tendency to abandon restorations in total and to avoid the attendant dangers by initiating a system of regular and permanent maintenance calculated to ensure the preservation of the buildings. (Article 1) In the case of ruins, scrupulous conservation is necessary, and steps should be taken to reinstate any original fragments that may be recovered (anastylosis), whenever this is possible; the new materials used for this purpose should in all cases be recognizable. (Article 6) With regard to other monuments, the experts unanimously agreed that, before any consolidation or partial restoration is undertaken, a thorough analysis should be made of the defects and the nature of the decay of these monuments. They recognized that each case needed to be treated individually. (Article 6) 	<ul style="list-style-type: none"> Proposed Restoration projects are to be subjected to knowledgeable criticism to prevent mistakes which will cause loss of character and historical values to the structures. (Preamble) When, as the result of decay or destruction, restoration appears to be indispensable, it recommends that the historic and artistic work of the past should be respected, without excluding the style of any given period. (Article 1) With regard to the preservation of monumental sculpture, the Conference is of opinion that the removal of works of art from the surroundings for which they were designed is, in principle, to be discouraged. It recommends, by way of precaution, the preservation of original models whenever these still exist or if this proves impossible, the taking of casts. (Article 5)
<p>THE VENICE CHARTER 1964</p> <p><i>THE INTERNATIONAL CHARTER FOR THE CONSERVATION AND RESTORATION OF MONUMENTS AND SITES</i></p> <p>Adopted by: The Second International Congress of Architects and Technicians of Historic Monuments</p> <p>Venice, Italy</p>	<ul style="list-style-type: none"> The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or a historic event. This applies not only to great works of art but also to more modest works of the past which have acquired cultural significance with the passing of time. (Article 1) 	<ul style="list-style-type: none"> Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity. (Preamble) 		<ul style="list-style-type: none"> It is essential to the conservation of monuments that they be maintained on a permanent basis. (Article 4) The material used for integration should always be recognizable and its use should be the least that will ensure the conservation of a monument and the reinstatement of its form. (Article 15) 	<ul style="list-style-type: none"> Items of sculpture, painting or decoration which form an integral part of a monument may only be removed from it if this is the sole means of ensuring their preservation. (Article 8) The process of restoration is a highly specialized operation. Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents. It must stop at the point where conjecture begins, and in this case moreover any extra work which is indispensable must be distinct from the architectural composition and must bear a contemporary stamp. The restoration in any case must be preceded and followed by an archaeological and historical study of the monument. (Article 9) The valid contributions of all periods to the building of a monument must be respected, since unity of style is not the aim of a restoration. When a building includes the superimposed work of different periods, the revealing of the underlying state can only be justified in exceptional circumstances and when what is removed is of little interest and the material which is brought to light is of great historical, archaeological or aesthetic value, and its state of preservation good enough to justify the action. Evaluation of the importance of the elements involved and the decision as to what may be destroyed cannot rest solely on the individual in charge of the work. (Article 11) Replacements of missing parts must integrate harmoniously with the whole, but at the same time must be distinguishable from the original so that restoration does not falsify the artistic or historic evidence. (Article 12)
<p>THE SECRETARY'S STANDARDS 1977-1992</p> <p><i>THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES</i></p> <p>Sponsored by: The United States Department of the Interior National Parks Service 1977 Revised: 1992</p> <p>Washington D.C., United States of America</p>		<ul style="list-style-type: none"> Each property will be recognized as a physical record of its time, place and use. Work needed to stabilize, consolidate and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection and properly documented for future research. (Standards for Preservation; Article 3) Changes to a property that have acquired historic significance in their own right will be retained and preserved. (Standards for Preservation; Article 4) Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved. (Standards for Preservation; Article 5) 		<ul style="list-style-type: none"> Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project. (Standards for Preservation; Preamble) When the property's distinctive materials, features, and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations, Preservation may be considered as a treatment. (Standards for Preservation; Preservation as a Treatment) 	<ul style="list-style-type: none"> Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project. (Standards for Restoration; Preamble) When the property's design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces, and finishes that characterize other historical periods; when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned, Restoration may be considered as a treatment. Prior to undertaking work, a particular period of time, i.e., the restoration period, should be selected and justified, and a documentation plan for Restoration developed. (Standards for Preservation; Restoration as a Treatment)

ABOVE: As part of his studies of the international agreements on conservation best practices, Eric began work on a poster-sized reference guide that displays excerpts from important Charters and other documents—including the Venice Charter and the Secretary of the Interior's Standards for Historic Properties—according to different topics. Reading across, the table tells us how each document addresses the various topics; reading from top to bottom tells us how international thinking has evolved on a given issue. A portion of the table is previewed here, but the full table should be available soon as an educational reference for professionals and students alike. Photo: courtesy of Eric Stalheim and the author

RIGHT: Graduate student Eric Stalheim's project during his Fall 2016 semester in Rome, with Visiting Associate Professor Ettore Maria Mazzola, studied the Foro Boario area of Rome. This district near the Tiber River was the ancient cattle market and includes such monuments as the Temple of Portunus and the Round Temple of Hercules, as well as later structures like the Church of Santa Maria in Cosmedin, with its iconic sculpture of the Bocca della Verità (the "Mouth of Truth"). Eric prepared a master plan to re-urbanize the site left vacant by 20th-century demolitions, together with a graphic reconstruction of the Round Temple. Photo: courtesy of Eric Stalheim

OPPOSITE: Graduate student Eric Stalheim and Visiting Professor Paolo Vitti at the Castel Sant'Angelo in Rome, where Professor Vitti has been conducting research on the ancient Mausoleum of Hadrian. Much of the original Roman masonry structure remains today, enveloped in subsequent layers of construction that produced the monument we see today. His close physical analysis and detective work have increased our understanding of the history and original appearance of this iconic monument. Photo by the author



[RECENT PROJECT]

Lord Aeck Sargent has been working at the Georgia State Capitol in Atlanta for 25 years, and there's still more to do. Photos: Jonathon Hillyer unless otherwise noted

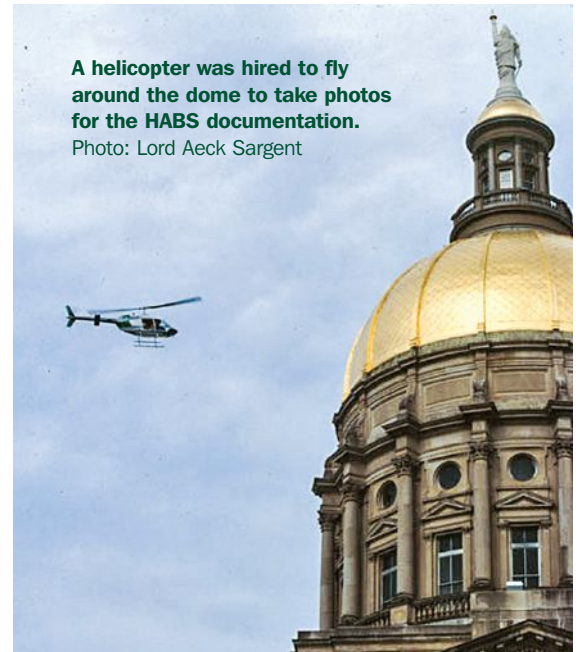


Georgia's Capitol: A Long-Term Project



A helicopter was hired to fly around the dome to take photos for the HABS documentation.

Photo: Lord Aeck Sargent



BUILT 1884–1889 IN THE CLASSICAL REVIVAL STYLE, the Georgia State Capitol is a focal point in downtown Atlanta with its 75-ft. gilded dome topped with the 15-ft., 2,000-lb. statue of Miss Freedom. Designed by Willoughby J. Edbrooke and Franklin Pierce Burnham of the Chicago firm of Edbrooke and Burnham, the four-story limestone building reaches a height of 237 ft. at the dome. The building was completed for just under \$1 million and was dedicated on July 4, 1889.

The main entrance on the west façade on Washington St. welcomes visitors via a four-story portico composed of six composite columns. The rear façade duplicates this entry and the Senate is located in the east wing, the House in the west wing. On the interior, white Georgia marble was used for floors and stairs, with pink Georgia Etowah flourie marble wainscot at the walls. Native Georgia woods were used, with cherry paneling lining the House and oak lining the Senate chambers. Statues, portraits and busts on every floor and on the exterior grounds celebrate well-known Georgia citizens such as Jimmy Carter and many others. The most recently installed statue honors Dr. Martin Luther King, Jr.

While its appearance is grand, this is basically a simple state capitol when compared to some others. A planned mural for the dome, for example, was never completed because of budget reasons. In addition, to save money, the exterior was made of limestone instead of the local white Georgia marble. Nevertheless, the capitol is well loved by its citizens and has served the state for generations. To this day, it still houses both the Senate and House chambers and their offices, the Governor's offices, as well as other state offices and the Appropriations Room (formerly the Old Supreme Court Room). In 1977, the building was named a National Historic Landmark.

The first renovation began in 1929 and there have been many others over the years. The most recent round of renovations was launched in 1993 when the state created a Capitol Commission with the goal of planning for the preservation of the building and insuring it would continue as a working capitol building. At that time, Lord Aeck Sargent (LAS) was working in the building.

“We were working in the building in 1993, doing fire protection, when the state decided to create the commission and they asked us to be a part of it.”

PROJECT

Rehabilitation of Georgia State Capitol, Atlanta, GA

ARCHITECT: Lord Aeck Sargent, Atlanta; Susan Turner, AIA, Principal

By Martha McDonald

Timeline

1993 – Capitol Commission, HABS Survey, Plaster Failure

1995 – Public Space, House and Senate Chambers and Appropriations Room

2000 – Budget Office, First-floor Corridors, Georgia Capitol Museum, Exterior Restoration

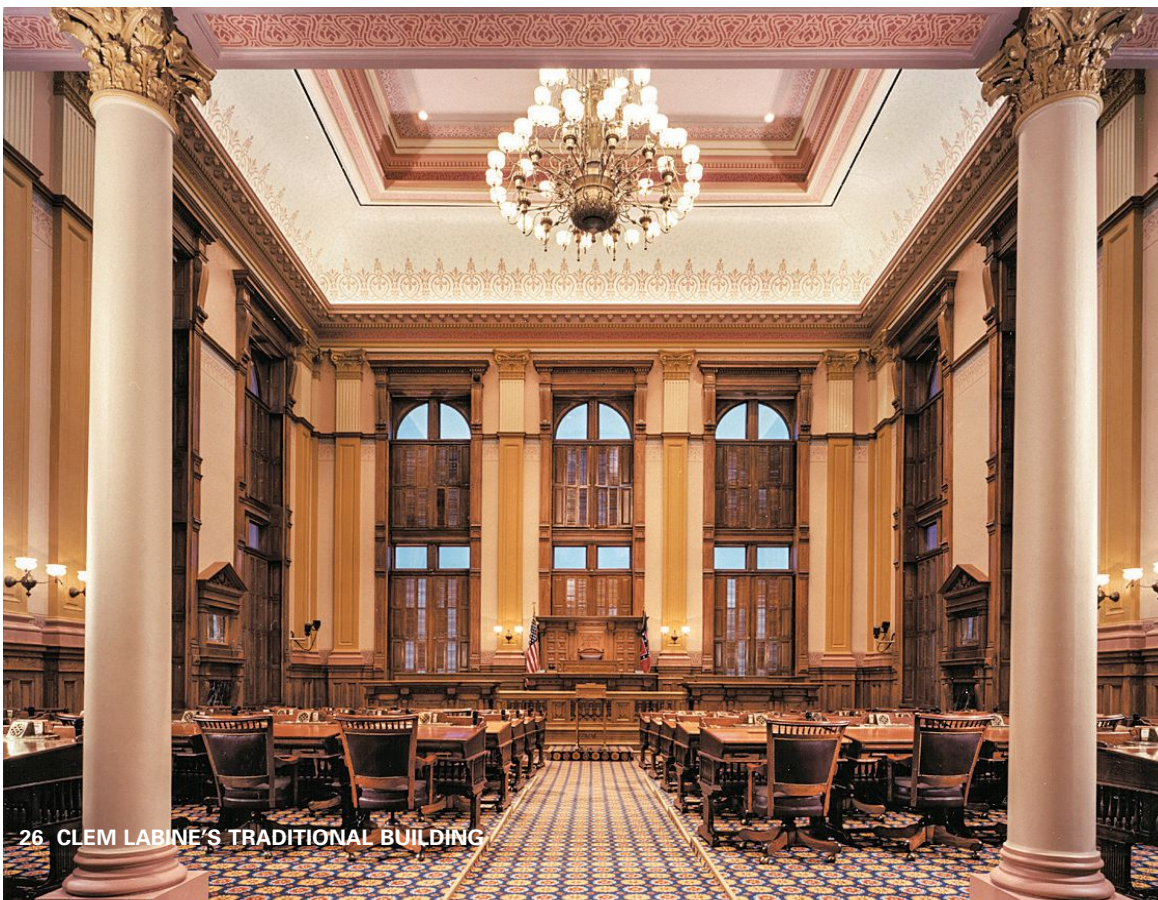


TE OF GEORGIA
SENATE
UGUST 10th 1911

TOP: Historic photo of the Senate Chambers.
Photo: courtesy of Georgia Building Authority

MIDDLE: The Senate Chambers before restoration. Photo: courtesy of Library of Congress

BOTTOM: The restored Senate Chambers.



says Susan Turner, AIA, principal, LAS. Under the leadership of Chair Dr. Timothy Crimmins, the commission was made up of a diverse group of people including representatives from the House and Senate, as well as representatives from the offices of the governor and the secretary of state, the state historic preservation office and other key individuals. The head of the Georgia Building Authority was also on the commission. “This diversity positioned them well to make headway with the building,” Turner notes.

The commission launched a Historic American Building Survey (HABS) of the building and it was just about completed when suddenly a piece of plaster fell off the ceiling in one of the atria. “Fortunately, no one was hurt,” says Turner. “We were asked to evaluate the plaster in the building. We found that all of the horizontal surfaces were adhered to hollow clay tile, and that the bond was failing, so that immediately launched us into repair mode. There were acres of plaster in the building.” This meant that the master plan had to be postponed so the repair and restoration could go forward.

She adds that the HABS documentation was tremendously helpful in guiding the preservation of the capitol. “HABS had just begun using digital technology at the time. They hired a helicopter to fly around the dome to take photos and together we produced some of the first CAD-based HABS documents. In addition, historian Anne Farrisee wrote a complete history of the building.”

The restoration of the plaster was just the beginning. “One thing led to the next and that launched the restoration project,” says Turner. “We had to put in place the necessary research and planning to inform securing and restoring the public spaces.” The LAS team hired Frank Welch, a prominent finishes analyst, to analyze paint and clear wood finishes in the capitol. He found that in the public spaces the original painted finishes were only two colors, a pale peach and pale green, very different from the paint scheme that had been put in place in 1970s—multiple shades of blue and gold gild. There was concern that the public would not like these original colors, so Turner’s team created a mock-up area and fortunately the pale historic colors were very well received.

Based on that research and the favorable response to the historic colors, LAS went forward to design the public space restoration. This work took several years because it was complex and because it had to be done in phases and during the time that the House and Senate were not in session.

2005 – Master Plan, Dome Structural Reinforcement, Miss Freedom Restoration, Roof Replacement, Exterior Stair Study, East Stair Restoration

2010 – Atria Plaster Repair

2013 – West Stair Restoration

TOP: Historic photo of the House Chambers.

Photo: courtesy of Georgia Building Authority

MIDDLE: The House Chambers before restoration.

Photo: courtesy of Georgia Building Authority

BOTTOM: The restored House Chambers.



When they saw the work in the public spaces, the House and the Senate expressed interest in restoring their chambers—so once again the master plan was postponed. LAS proceeded with the restoration of these chambers and then they moved on to the other elaborate space, the Appropriations Room. These areas provided a number of challenges.

Many of the changes that had occurred over time were the result of integrating new technologies. “We started with the idea of reversibility,” says Turner. “The lifespan of technology is short, so we wanted to do everything so that it could be reversed without affecting the historic building.” To this end, they were able to create a unit that manages all of the technology and insert it into the historic legislators’ desks, where historic inkwells once existed. This allowed them to keep the original desks, which were in good condition.

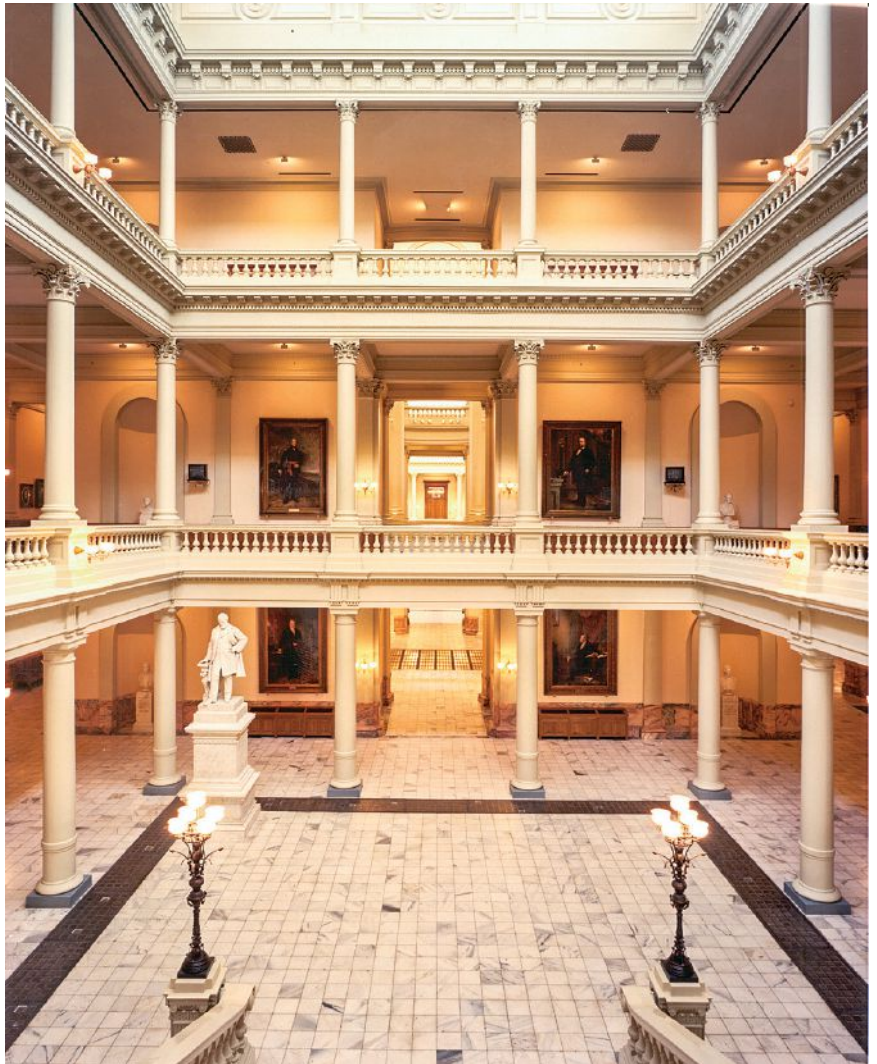
Acoustics was another unusual technology-related challenge. Turner explains that over the years, in order to deaden the sound, the State had taken out the original wood louvered shutters and put Styrofoam insulation and curtains in the windows. And, to hide this on the exterior, they had replaced the clear glass with green glass. In addition, acoustic tile had been glued on the ceiling. “Worst of all,” she points out, “at the edge of ceiling, the large (about 8 ft.) plaster coves had been removed and replaced with acoustic panels. The coves were an important feature, so this was very unfortunate.”

LAS removed the Styrofoam, the curtains and the green glass and replaced the shutters and clear glass in the windows, but then they were faced with acoustic issues. The solution was to save the remaining historic materials by using the element that required reconstruction, the cove, to solve the acoustics. “We reproduced the cove with one made of a perforated metal material. When it was painted, you couldn’t see the perforations,” says Turner. In addition to restoring the original appearance of the chambers, the new cove helped solve the acoustic problem by hiding sound-absorbing materials behind it. “This went a long way toward solving the acoustic problem,” Turner notes. “This allowed us to limit other acoustic treatment to minimal fabric panels on the walls in the balcony, custom-dyed to match the walls. We also installed a linear diffuser above the cove that helped to integrate the new air conditioning as well.”

An interesting challenge in both chambers involved how to manage the voting screens. Originally both the House and the Senate had fireplaces with large



LEFT: In the 1970s, the public spaces had been painted multiple shades of blue and gold gild. Photo: Lord Aeck Sargent



BELOW: Following an analysis by Frank Welch, the public areas were returned to their original pale colors.



Another view of the public space after restoration.
Photo: Diane Kirkland



Delivering Miss Freedom back to her place on top of the dome. Photo: Lord Aeck Sargent

overmantels on either side of the speaker. These overmantels had been removed to make room for the voting boards. “We, of course, wanted to put the fireplaces and overmantels back,” says Turner. The president of the Senate, who was very interested in the restoration, came up with a solution. It involved moving the voting board to a position behind a panel located behind the speaker. When there’s a vote, this panel can be raised to reveal the voting board. The rest of the time the voting board is hidden. This move opened the wall spaces so the fireplaces and overmantels could be restored.

The House, however, decided to keep the voting boards visible at all times, even when not in session. This decision was based on the fact that school groups come for tours and the boards are a big part of the lesson. Turner was pleased with this decision because it provided two different viable solutions. Now one chamber is interpreted as it was historically and the other displays its contemporary function. “We got the best of both worlds,” she says.

Another problem, one typical to many restorations, was the miles of cable needed for new technology throughout the chambers. The LAS team was able to take advantage of the attics above the chambers to hide some of them, but they had to look for other paths. “We found that the capitol originally had warm air heated in the basement that traveled through flues, so there were a number of paths inside the solid masonry walls,” Turner explains.

In the former Supreme Court Room, LAS researched and recreated the original furnishings because most of the furniture had been removed. Technology was a challenge here too, and the solution was to hide most of it inside the replicated judicial bench.

The issue of historic colors came up again in the rehabilitation of the House and Senate Chambers and the Appropriations Room. Most of the historical research relied on black-and-white photos from the 1890s, which meant that the original colors couldn’t



The offices before restoration.
Photo: courtesy of Georgia Building Authority



A suite of offices after restoration.

be seen. While Welsh’s paint analysis identified the many paint colors, the carpet colors were a mystery. LAS brought in Dr. William Seale, White House historian, to consult on the carpet colors, and he came up with a color palette for the House and the Senate Chambers. However, when it came to the Appropriations Room, there were no photos. By chance, Dorothy Olson, the curator of the Capitol Museum, found a piece of an old Brussels carpet in the back of safe, “The colors worked amazingly well with the historic colors,” says Turner. “This was serendipitous.”

At this point the Budget Director became interested in restoring office spaces, so the LAS team restored a suite of offices, again postponing the

master plan. “We rehabilitated it back to the original materials and configuration,” Turner says. “Over the decades, different finishes and plywood paneling (we nicknamed it trailer paneling) has been added. We were hopeful that similar work could be done in all of the offices. That didn’t happen, but it did serve as a template for several other offices.”

The work in the offices was limited by changes that had been made over the years. Starting in 1960s and going through the 1980s, the growing government needed more space so they had created mezzanines between floors. “We couldn’t do anything that would be based on returning the original volumes because we were inhibited by the existence of the mezzanines,” Turner explains.

Key Suppliers

Construction Manager: **The Winter Construction Company**, Atlanta, GA

Construction Manager West Stairs: **Midwest Maintenance Inc.**, Piqua, OH

Historic Finishes Analysis: **Welsh Color & Conservation, Inc.**, Bryn Mawr, PA

Historic Plaster Conservator: **Architectural Conservation Services, Andrew Ladygo**, Manchester by the Sea, MA

Historic Lighting Restoration & Replication: **Jefferson Art Lighting Co.**, Ann Arbor, MI

West Stair Historic Lighting Replication: **St. Louis Antique Lighting Co.**, St. Louis, MO

Window Restoration Shenandoah **Restorations Inc.**, Irmo, SC

Plaster Restoration: **EverGreene Painting Studios**, New York, NY and **Finch Finishes**, Nashville, TN

Decorative Painting: **EverGreene Painting Studios**, New York, NY and **Conrad Schmidt Studios Inc.**, New Berlin, WI

Painting and Woodwork Restoration: **Goodman Decorating Co.**, Atlanta, GA

Millwork: **Mortensen Woodwork Inc.**, Union City, GA

Miss Freedom Statue Restoration: **Heather & Little, Ltd.**, Markham, ON

Historic Hardware Restoration & Reproduction: **Accurate Lock & Hardware**, Norwalk, CT



The Appropriations Room before restoration.

BELOW: The Old Supreme Court Room, now the Appropriations Room, after restoration.



The team had looked at other ways to find more office space. One study had proposed creating large underground spaces, similar to what was done to the capitol in Texas. “They created an enormous underground addition tied into the historic building and it was very sensitively done,” says Turner, “but this would have been a huge project, and it never came to pass.”

The master plan was finally completed in 2005.

LAS worked on the interior for many years and then moved to the exterior. Miss Freedom, the exterior limestone and windows were restored and the roof was replaced. Most recent was the work on the four sets of monumental limestone stairs on each side of the building. “They had been cracking and moving

for a long time,” says Turner, “so they needed major work.” She explains that they looked at different ways to brace the stairs, but ultimately decided to carefully remove the treads and pour new continuous concrete slabs and then return the treads. “This was a big job. We did the east side a few years ago and the west side in 2014, and there are two more to go.”

The cumulative total spent to date is approximately \$78 million. Two factors have kept this figure down, says Turner. “One is we haven’t done the whole building. Secondly, our building is actually simple compared to other capitol buildings. They were very conscious of cost when they built the capitol, and were able to come in under budget. Other capitols built at the same time were much more

expensive, more lavish.”

Three of the four main public spaces—the House, the Senate, and the Supreme Court Room (now the Appropriations Room)—are restored. Turner hopes to someday get to the fourth public space, the Senate Library. She notes that there’s always more to do, and even some of the early restoration work is now in need of repair. The support of the legislators and the Capitol Commission has been crucial. “We had very strong support for everything for a good number of years, up until the bottom fell out of the economy,” Turner says. “The Capitol Commission kept everyone informed. They were advocates for the project and that helped keep the momentum going and helped get funding.”

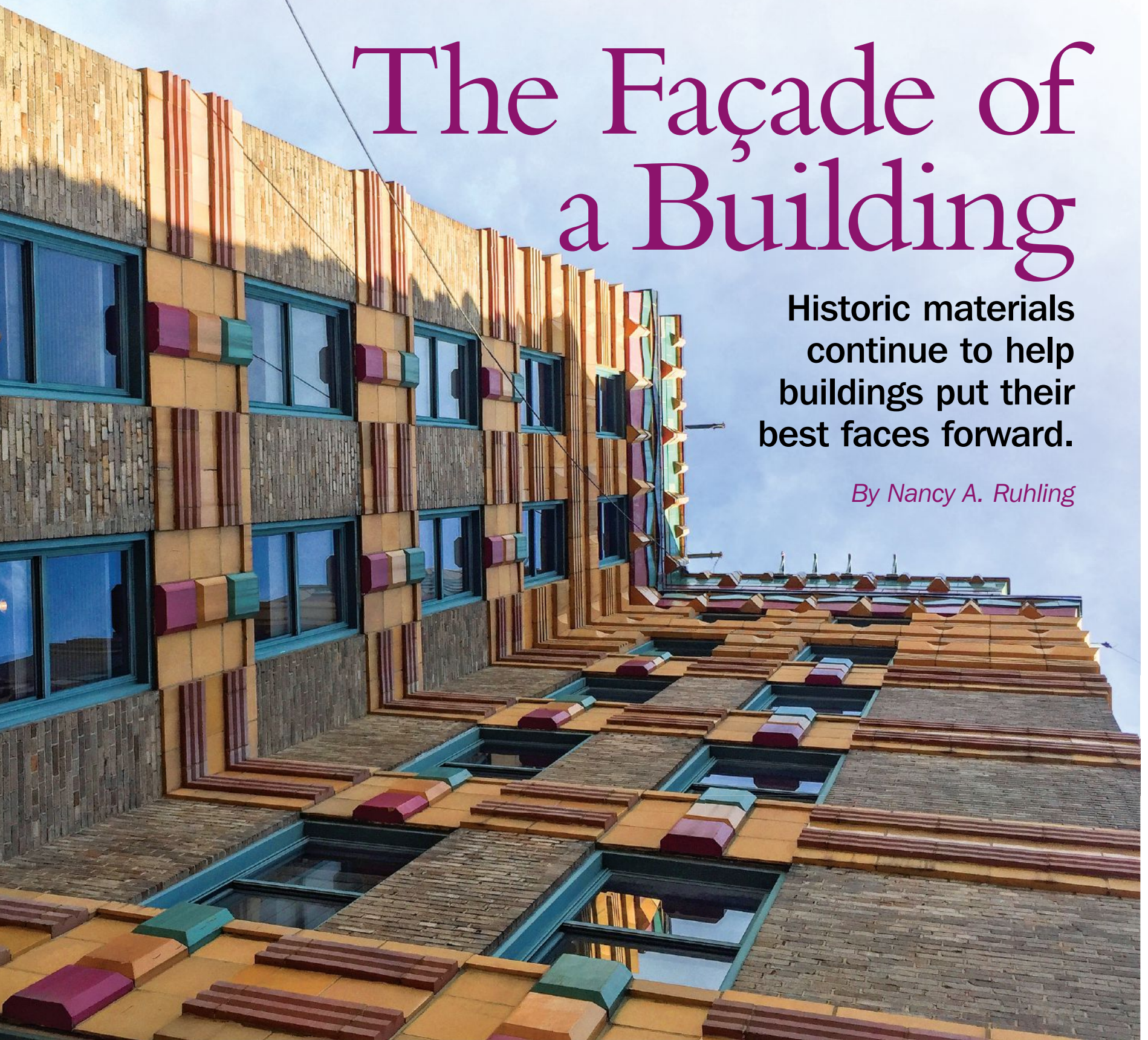
The historic limestone building was named a National Historic Landmark in 1977.



The Façade of a Building

Historic materials continue to help buildings put their best faces forward.

By Nancy A. Ruhling



WHEN IT COMES TO FAÇADE materials, bricks and terra cotta are two of the building blocks of historic design. These timeless elements have never gone out of style. Terra cotta, for example, has been making a comeback: Architects doing contemporary projects are specifying it because it is durable, fire-resistant and easily shaped into elaborate forms.

The trend, which started in Europe in the 1990s, has been picked up in the United States in projects like One Vanderbilt, a 1.6-million-sq.-ft., 57-floor office tower under construction near Grand Central

Station in Midtown Manhattan that's taller than the Empire State Building.

"Terra cotta is green—it's clay, water and fire," says Bill Pottle, director of business development for Boston Valley Terra Cotta. "And you can do colorful custom glazes, which is what architects are asking for."

Jess Ouwerkerk, project manager/surveyor in the Northeast for Gladding, McBean, agrees, adding that the company recently created terra cotta panels for 207 W. 79th St., a new-construction residential project in Manhattan.

On the brick front, thin is in. New-construction

projects that want to convey an antique ambience increasingly are using this technique. "It's a lot less costly than masonry and doesn't require as much skill," says Mike Gavin of Gavin Historical Bricks. "It's installed in panels like tile. We are starting to tap into the potential on thin brick. I think demand will grow, especially on the commercial side."

Brian Belden, vice president of sales and marketing for Belden Brick Co., agrees that the market for thin bricks is growing.

Here are some of the companies that are remaking the face of the façade industry.



ABOVE: A composite rendering of a section of the Woolworth Building shows replacement terra cotta units created by Boston Valley Terra Cotta draftsmen.

Boston Valley Terra Cotta Orchard Park, NY

One of only two major terra cotta manufacturers in the United States, the company was established by the Krouse family in 1981, following its purchase of Boston Valley Pottery which was founded in 1889. The original company made bricks and clay pots. The company, which is housed in a 185,000-sq.-ft. work space, has over 135 employees.

It combines historical craftsmanship with a modern infrastructure and 3-D modeling. Digital survey photos are scanned and Rhino software is used to create drawings, shop tickets and tool paths for the CNC machines to run. The company does hand and digital sculpting.

Boston Valley Terra Cotta's first project, the restoration of Louis Sullivan's Guaranty Building in Buffalo, NY, prepared it for work on other significant historic buildings.

The Woolworth Building in New York City

Recently, the company completed work on the Woolworth Building, a National Historic Landmark and a New York City Landmark. The Neo-Gothic icon was designed by architect Cass Gilbert for F.W. Woolworth. Opened in 1913, the 792-ft., 58-floor building, which the dime store magnate used as his company headquarters, is one of the 100 tallest in the United States and one of the 30 highest in the city.

Nearly a century later, Boston Valley Terra Cotta was hired by the masonry firm Nicholson & Galloway of Glen Head, NY, to repair the terra cotta on the top 30 floors, which had been bought by an investment group led by the New York developer Alchemy Partners for conversion to luxury condominiums. These Woolworth Tower Residences include a five-level penthouse.

"We went there to survey the building," says Pottle. "Some of the pieces are very elaborate and technical." Re-creating the terra-cotta pieces, which numbered 3,550, he says, was easy. Getting them to the building was a real challenge. "There were a lot of logistics to getting them to the 53rd floor," he says. "New York City has stringent rules on truck sizes and timing and then there are OSHA rules for the scaffolding."

BELOW: Boston Valley Terra Cotta created the new ornamental cartouche (top) for Louis Sullivan's Gage Building. The bottom shows the original. Photos: Boston Valley Terra Cotta



BOTTOM: A piece of Boston Valley Terra's Cotta's replica of the detailed ornamentation of 35 E. Wacker displayed next to the original.

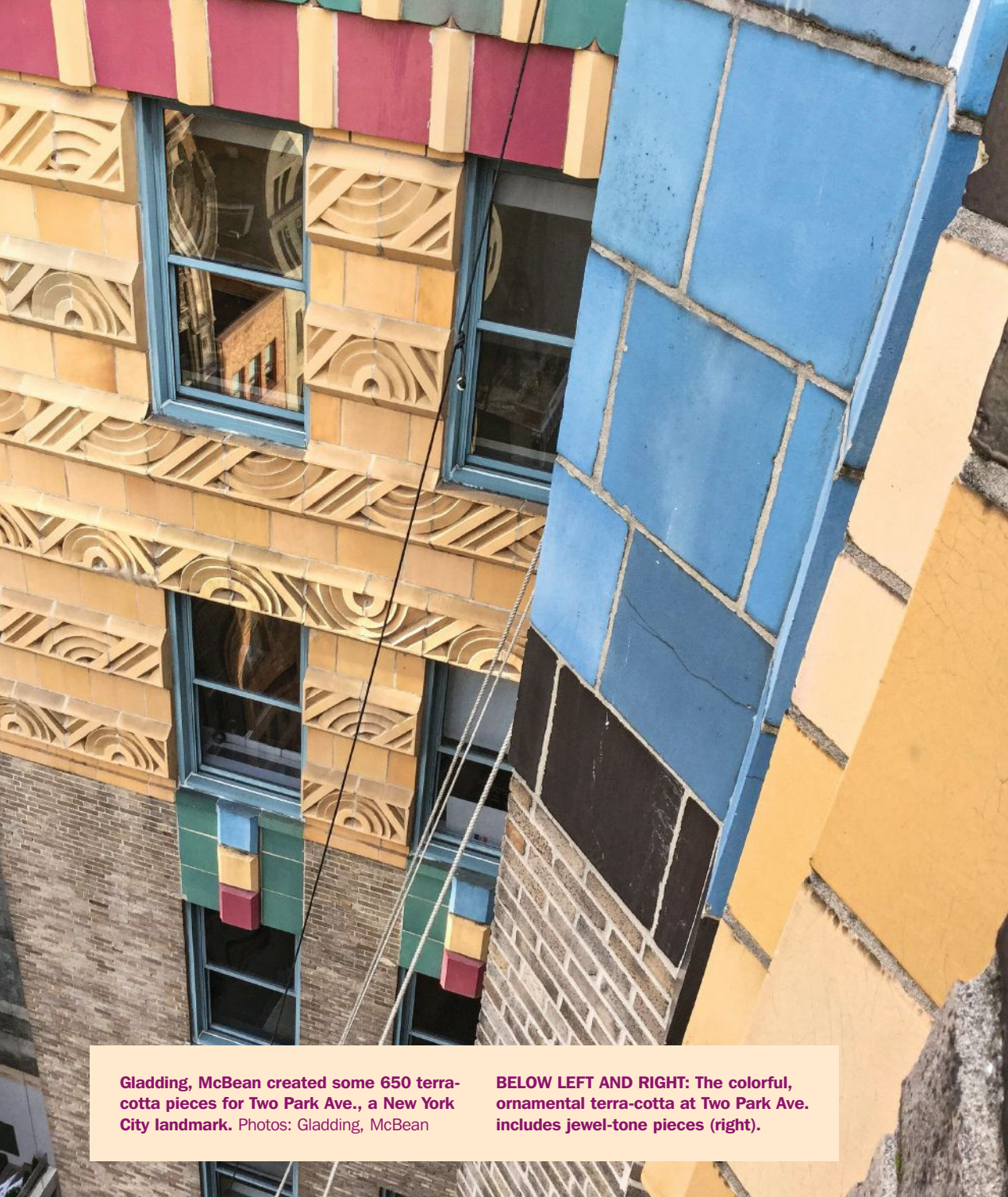


The Jewelers' Building in Chicago

Since 2016, Boston Valley Terra Cotta has been repairing and replacing the terra cotta on the Jewelers' Building at 35 E. Wacker St. in Chicago. The 523-ft., 40-story building, which is in the city's Loop, was co-designed by Joachim G. Giaver and Frederick P. Dinkelberg. Constructed between 1925 and 1927, it was one of country's tallest buildings. It's on that National Register of Historic Places and has

been designated a Chicago landmark.

Boston Valley Terra Cotta is particularly proud of the work it has done on Louis Sullivan buildings, including the Gage Building in Chicago and the Home Building Association Bank in Newark, OH. "We have been fortunate to work on some of the most iconic buildings in America," Pottle says. "But the Louis Sullivan work holds a special place for us because that's where we started."



Gladding, McBean Lincoln, CA

The family-owned company, founded in 1875, is one of two terra-cotta makers in the United States. In addition to terra cotta, it makes roof tiles, pottery, floor tiles and clay pipes.

Two Park Ave., New York City

Gladding, McBean created some 650 terra-cotta pieces for Manhattan's Two Park Avenue, a New York City landmark designed by architect Ely Jacques and completed in 1927. The Art Deco/Modernist style commercial structure, which has 29 above-ground floors, features a series of setbacks decorated with geometrical terra-cotta ornamentation.

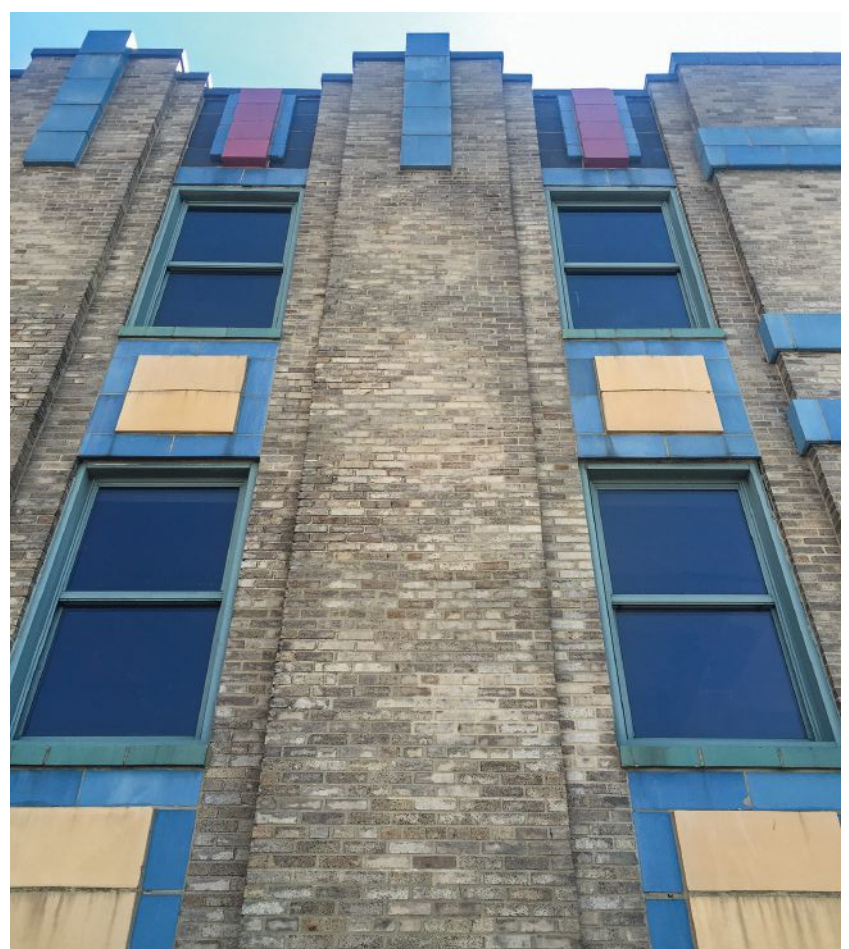
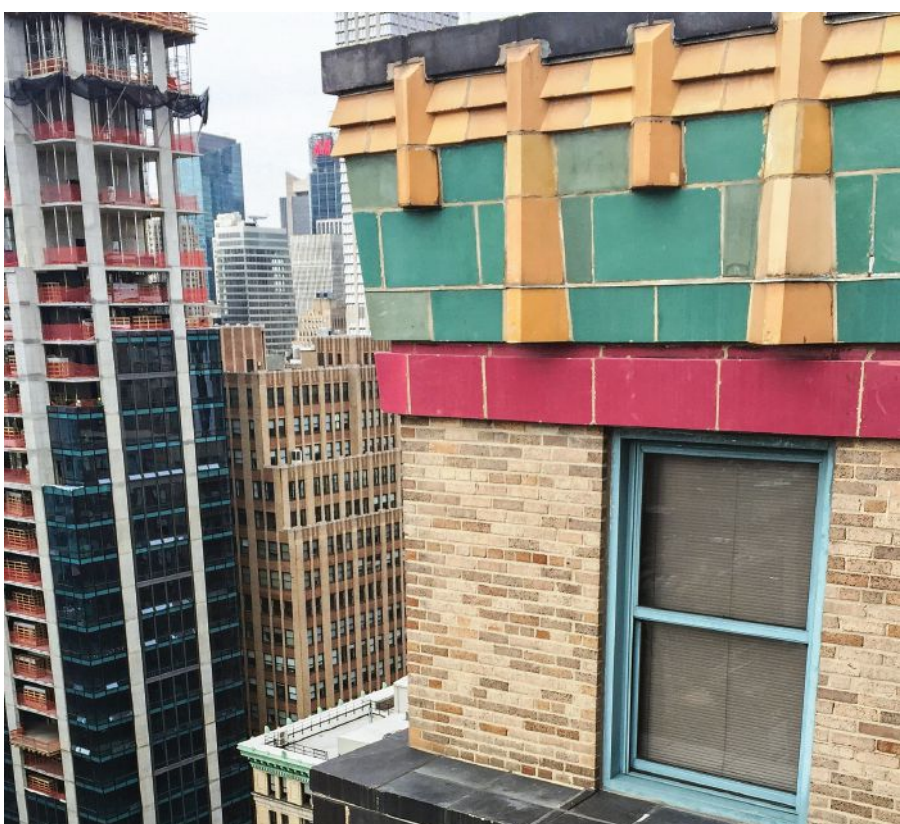
After gathering fragments of the highly ornamental units and using various site survey methods for the other units, Gladding, McBean made replacement pieces, which range from 12 to 18 in. tall by 8 in. wide to 2 ft. tall and 2 ft. wide. The jewel-tone pieces—black, magenta, bright green, tan, two yellows and azure—have multiple glazes.

“Recreating the glazes was exciting for our glaze ceramicists,” Jess Ouwerkerk, project manager/surveyor in the Northeast says. “We typically only have to develop one or two colors for a building. This building is distinctive because it is not only the terra cotta’s form but also the varying glaze colors that work to create patterns on the façade. Matching existing glazes can be complex since they have to be formulated with materials available to us now, and these can be different from historic materials.”

Although the original terra-cotta pieces were handmade, Gladding, McBean used an extrusion process that Ouwerkerk compared to pasta making to create the units that had simpler geometric forms. “Material is extruded through a die and then cut into units,” Ouwerkerk says. “As a result, it is a faster process than hand-pressing. The extruded units are true to the form of the original pieces; however, their production has been modernized and streamlined. Extrusion doesn’t alter how the units appear on the façade of the building although they might attach into the building a bit differently.”

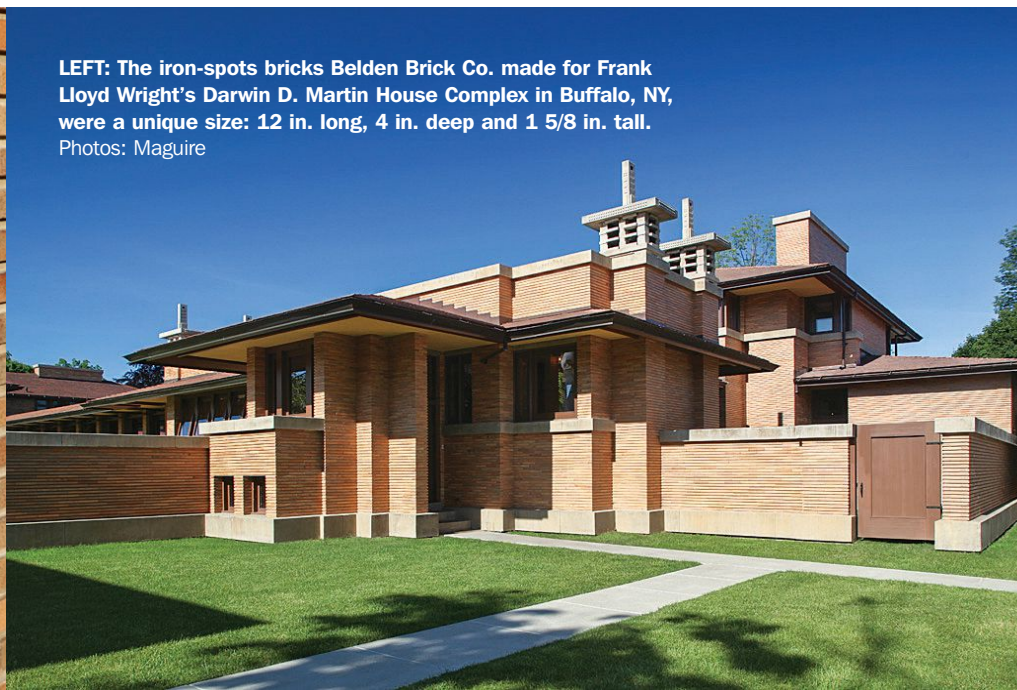
Gladding, McBean created some 650 terra-cotta pieces for Two Park Ave., a New York City landmark. Photos: Gladding, McBean

BELOW LEFT AND RIGHT: The colorful, ornamental terra-cotta at Two Park Ave. includes jewel-tone pieces (right).





LEFT: The iron-spots bricks Belden Brick Co. made for Frank Lloyd Wright's Darwin D. Martin House Complex in Buffalo, NY, were a unique size: 12 in. long, 4 in. deep and 1 5/8 in. tall. Photos: Maguire



BRICKS AND PAVERS

The Belden Brick Co.

Canton, OH

The family-owned company traces its roots to the Diebold Fire Brick Co., which was founded in 1885 by Henry S. Belden. The Beldens—Robert F and son Robert T. along with cousins Brian and Bradley—are the principals in what has become the nation's sixth largest brick manufacturer in America.

The company, which has an annual production capacity of 250 million bricks, operates five manufacturing plants and one saw house in Sugarcreek, OH. It specializes in manufacturing custom extruded and molded bricks that match traditional colors and sizes.

Brian Belden, vice president of sales and marketing, says that the company is able to produce replicas of historic bricks because it has five plants that span nearly a century. Plant No. 4, built in the 1920s, features traditional beehive kilns; Plant No. 6 was built in the 1950s; No. 8 was added in 1968; No. 3, which produces molded brick, was acquired in the 1970s and rebuilt in the 1980s; and the newest, No. 2, was built in 2000.

Belden Brick uses photos or samples to create the replicas. "Sometimes, we have the appropriate bricks in our inventory," Belden says. "If we don't have it, we create it. Usually, it's just a matter of tweaking the materials, changing the fire temperature or including additives like manganese to get the right color."

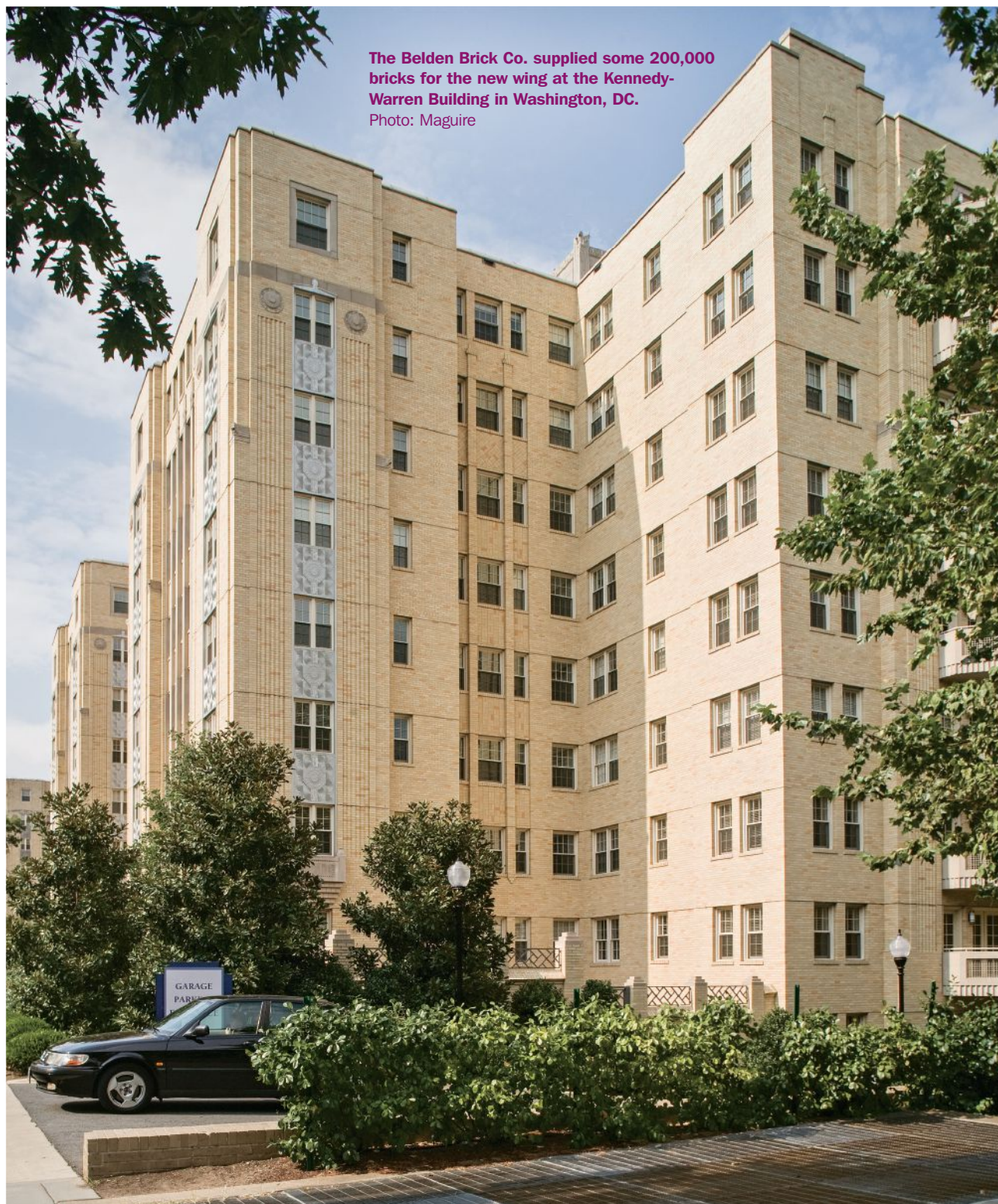
Frank Lloyd Wright's Darwin D. Martin House Complex in Buffalo, New York

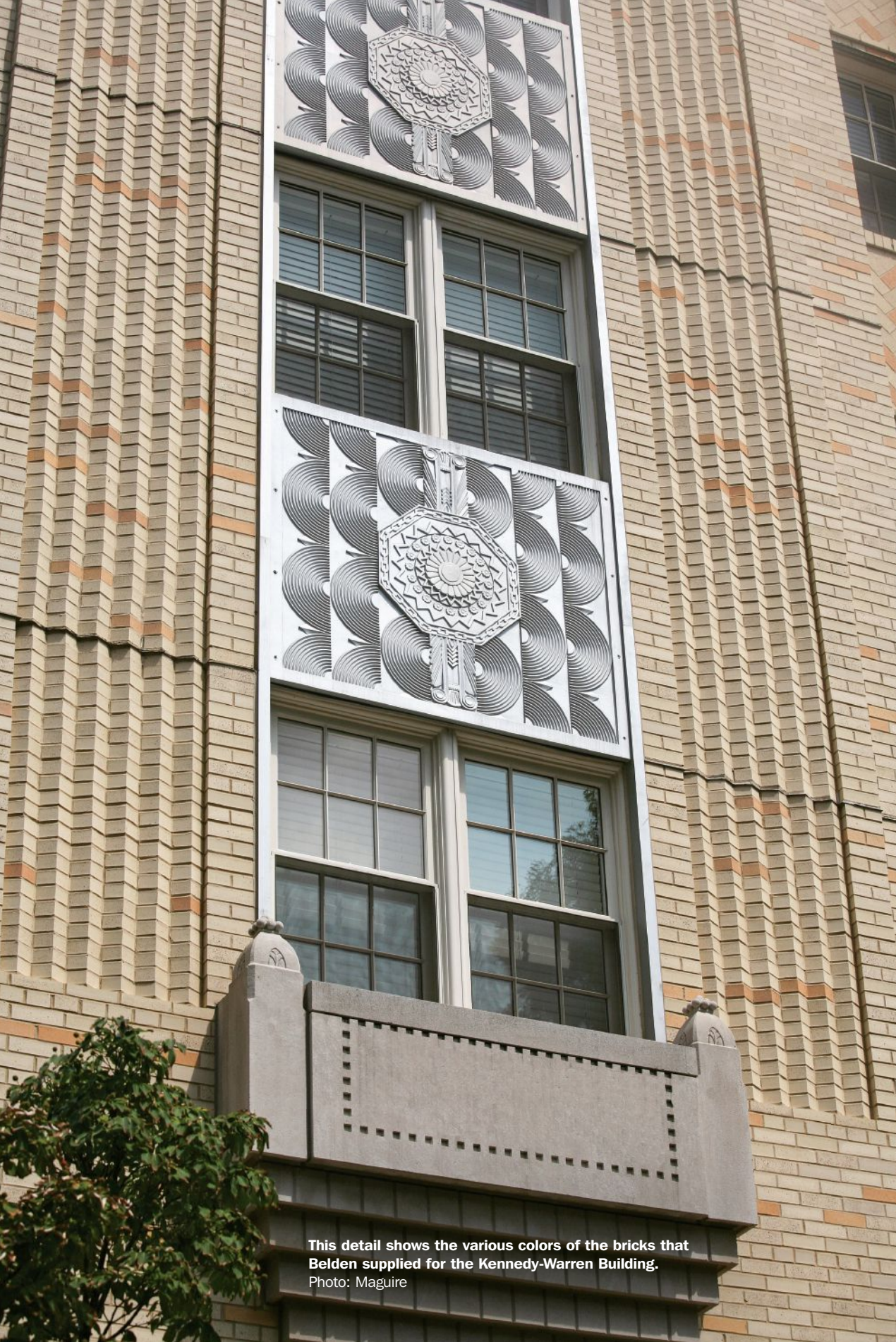
Belden Brick made custom bricks for the Darwin D. Martin House Complex in Buffalo, NY, which was constructed between 1903 and 1905. The complex—the Martin House, the Barton House, a carriage house, conservatory and pergola—is considered one of Frank Lloyd Wright's greatest Prairie School projects.

The restoration, which took some 40,000 bricks, included reconstructing the demolished outbuildings. The iron-spots brick, which Belden made in the 1920s beehive kilns in its No. 4 plant, was a unique size—12 in. long, 4 in. deep and 1 5/8 in. tall. (A typical Roman brick is 11 1/2 by 3 3/4 by 1 1/2.) "We got the

The Belden Brick Co. supplied some 200,000 bricks for the new wing at the Kennedy-Warren Building in Washington, DC.

Photo: Maguire





This detail shows the various colors of the bricks that Belden supplied for the Kennedy-Warren Building.
Photo: Maguire

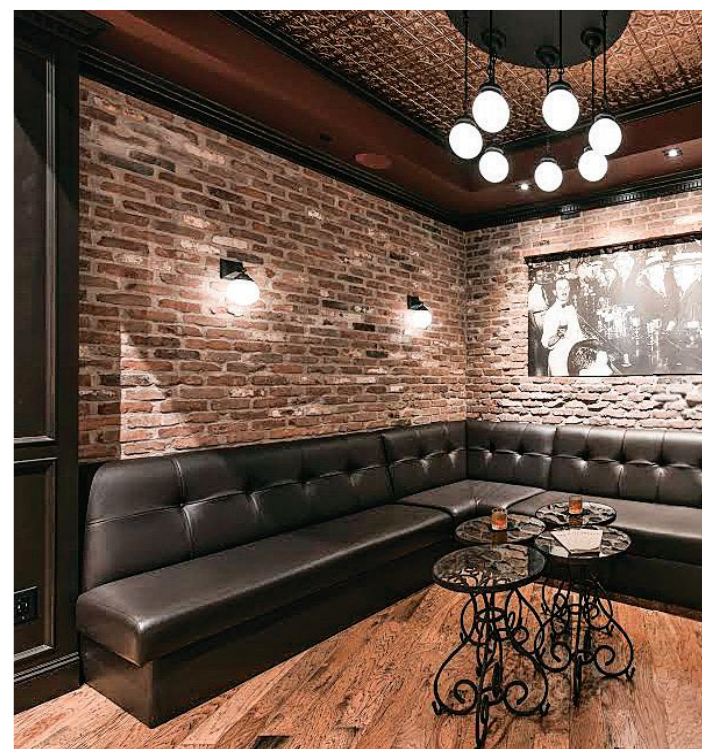
color by changing some of our firing temperatures and flashing in the kiln,” Belden says. “It was the most difficult part of the project.”

Kennedy-Warren Building, Washington, DC

When a wing was added to the historic Kennedy-Warren apartment house in Washington, DC, Belden Brick provided matching brick, including some in special shapes. The Art Deco building, a District of Columbia Historic Landmark that is on the National Register of Historic Places, was designed by Joseph Younger. It opened in 1931

with 210 apartments. A wing, part of the original plans, was added in 1935, but the Great Depression delayed the other wing, on the south side, until 2004.

The 21st-century wing followed Younger’s exterior design and included some 200,000 bricks. “There were multiple colors of brick used that ranged from creamy grays to iron-spot buff,” Belden says. “These were stock items, and we blended them together from two of our plants. The grays came from No. 8, and the buff from the 1920s plant, No. 4.”



Gavin Historical Bricks

Iowa City, IA

The largest supplier of reclaimed antique paving and building material in America, Gavin Historical Bricks has shipped product to every state in the country. The company was founded 20 years ago by John Gavin. His son, Mike, joined him 15 years ago. “It started as a hobby,” Mike says. “My dad got interested in the old pavers that were being removed from the streets in Williamsburg, IA. He bought some and did his driveway. He had a lot left over.”

Initially, the company concentrated on paving stones, which still forms the bulk of its business. It also buys antique brick from demolition companies. “We want ultra-high quality,” Mike says. “We’re choosy about which projects we buy from. Antique brick and pavers are not in endless supply. They are a luxury item that gives an authentic, unique look.”

Although the company recently bought a large quantity of granite cobblestones from a St. Louis street, Mike says that they are “tougher and tougher to come by” because towns are preserving what they have.

The company, which includes a crew of eight, works on residential as well as commercial projects. “Our bricks and pavers are in the homes of variety of people—Hollywood celebrities, Nashville musicians and CEOs,” he says. “And our commercial side has really grown.”

At Mateo, Los Angeles

Gavin Historical Bricks supplied four kinds of antique brick for At Mateo, a new-construction dining and shopping development in Los Angeles’ Arts District. “This was one of our biggest projects,” Mike says. “We supplied hundreds of thousands of bricks that were saw-cut to $\frac{3}{8}$ of an inch.”

The antique brick, which was used on the exteriors and on some interiors, brings the development in sync with the surrounding warehouse spaces that date from the early 20th century. “The architect and designer wanted to make it look like it happened organically,” he says.



Gavin Historical Bricks supplied the antique bricks, cut thin for veneer, for PROOF Whiskey Bar & Craft Cocktails in Ohama, NE. Photo: courtesy of Gavin Historical Bricks



ABATRON cast the three white finials; the dark one is the original. Photo: ABATRON



ABATRON's roaring lion's head, which is about 15 inches in diameter, shown with the mold, the original and the casting. Photo: ABATRON

Firehouse Hook and Ladder No. 8, New York City

Built in 1903, the Beaux-Arts firehouse, which starred in both Ghostbusters movies, is undergoing a \$6-million renovation that includes restoration of parts of its brick façade.

Gavin Historical Bricks supplied about 1,000 antique bricks for the project. "They sent us photos and we matched the age and look of the existing brick," Mike says. "We did it all while sitting in our offices in Iowa City."

Mike says that Gavin Historical Bricks is excited about the future. "We're really passionate about reclaiming antique brick and stone," he says. "We think demand will continue to grow."

MOLD-MAKING AND CASTING COMPOUNDS

ABATRON INC. Kenosha, WI

The family-owned company, which was founded in 1959, manufactures flexible mold-making and casting compounds. It also creates molds and castings.

Most of its castings are made with epoxy, plaster and concrete. During the 1980s, the company expanded and began to fill the demand for high-quality building restoration products. ABATRON provides products that are easy and safe to use and that are environmentally safe, permanent and at the top of their product category in performance.

Lion's Head Mold and Casting

The lion's head that ABATRON uses in its publicity photos and offers in its catalog was bought at a silent auction in St. Louis. It originally decorated the façade of a hotel and was saved from the wrecker's ball when the building was razed.

"A customer recently wanted castings for her shop," says President Marsha Caporaso, whose husband founded ABATRON. "We found an original mold that we made years ago and made the castings. The customer was thrilled."

The casting was made with ABATRON's WoodCast™, a lightweight epoxy casting compound, and WoodEpoxy®, a lightweight epoxy wood filler. The mold was made with MasterMold 12-3®, a flexible polyurethane paste that was developed to

make molds of architectural elements that cannot be removed from the site.

"The challenge in making the mold was that it has to be flexible enough to be pulled from deep undercuts and strong enough not to tear," Caporaso says. The one-part mold is reusable. The model was coated with a release agent to prevent MasterMold® from sticking to it. A thin layer of MasterMold® was brushed on the model followed by a thicker layer (¼- to ⅜-in.) applied with a putty knife.

Finials

ABATRON made three finials, each 25x13 in., from a hollow-metal model. The mold was made with MasterMold 12-8®, a pourable version of MasterMold 12-3®. A form to contain the liquid material was fashioned. "The biggest challenge was the widely varying dimensions of the model," Caporaso says.

The castings, which were made with WoodCast™ and WoodEpoxy®, a lightweight putty that can be applied in relatively thin layers to create hollow castings, were made in stages. The ball tops of the finials were reinforced with wooden dowels.

The Advertiser Index

Historical Products Showcase

Architectural Grille	40
800-387-6267 www.archgrille.com	
Bovard Studio, Inc.	Back Cover
641-472-2824 www.bovardstudio.com	
Driwood Moulding Company	39
888-245-9663 www.driwood.com	
EverGreene Architectural Arts, Inc.	40
212-244-2800 www.evergreene.com	
Gaby's Shoppe	39
800-299-4229 www.gabys.com	

Columns & Capitals

Chadsworth Columns	41
910-763-7600 www.columns.com	

Doors, Entryways & Hardware

Coppa Woodworking	42
310-548-4142 www.coppawoodworking.com	
E.R. Butler & Co.	42, Inside Back Cover
212-925-3565 www.erbutler.com	
Historical Arts & Casting, Inc.	43
800-225-1414 www.historicalarts.com	
Vintage Doors	43
800-787-2001 www.vintagedoors.com	
Von Morris by Eric Morris & Company	4
856-997-0222 www.ericmorrisandco.com	

Windows, Shutters & Hardware

Acorn Forged Iron	47
508-339-4500 www.acornmfg.com	
Allied Window, Inc.	44
800-445-5411 www.alliedwindow.com	
Architectural Components, Inc.	46
413-367-9441 www.architecturalcomponentsinc.com	
Architectural Resource Center	47
800-370-8808 www.aresource.com	
Crittall Windows, Ltd.	46
011-44-1376530800 www.crittall-windows.com	
Indow	7
503-284-2260 www.indowwindows.com	
Innerglass Window Systems	45
800-743-6207 www.stormwindows.com	
Marvin Windows and Doors	5
888-537-7828 www.marvin.com	

Parrett Windows & Doors	3
800-541-9527 www.parrettwindows.com	
Phelps Company	45
603-336-6213 www.phelpscompany.com	
Shuttercraft, Inc.	45
203-245-2608 www.shuttercraft.com	

Landscape & Streetscape Specialties

Gavin Historical Bricks, Inc.	48
319-354-5251 www.historicalbricks.com	
Haddonstone (USA), Ltd	51
719-948-4554 www.haddonstone.com	
King Architectural Metals	9
800-542-2379 www.kingmetals.com	
Kreilick Conservation LLC	51
215-572-6616 www.kreilickconservation.com	
R. Alden Marshall & Associates LLC	51
717-805-3114 www.raldenmarshall.com	
Robinson Iron Corp.	49
800-824-2157 www.robinsoniron.com	
Wiemann Metalcraft	50
918-592-1700 www.wmcraft.com	

Exterior Lighting

Authentic Designs	53
800-844-9416 www.authenticdesigns.com	
Ball & Ball Lighting	53
610-363-7330 www.ballandball.com	
Deep Landing Workshop	54
877-778-4042 www.deeplandingworkshop.com	
Grand Light	53
800-922-1469 www.grandlight.com	
Herwig Lighting	54
800-643-9523 www.herwig.com	
House of Antique Hardware	54
888-223-2545 www.houseofantiquehardware.com	
Lantern Masters, Inc.	55
818-706-1990 www.lanternmasters.com	
St. Louis Antique Lighting Co.	Inside Front Cover
314-863-1414 www.slalco.com	
Steven Handelman Studios	54
805-962-5119 www.stevenhandelmanstudios.com	
Vintage Hardware & Lighting	52
360-379-9030 www.vintagehardware.com	

Slate, Tile & Metal Roofing & Roof Specialties

Heather & Little Limited	57
800-450-0659 www.heatherandlittle.com	
NIKO Contracting Co., Inc.	57
412-687-1517 www.nikocontracting.com	
Preservation Products, Inc.	4
800-553-0523 www.preservationproducts.com	
W.F. Norman Corp.	11
800-641-4038 www.wfnorman.com	

Bird Control

Bird-B-Gone	58
800-392-6915 www.birdbgone.com	

Masonry Restoration, Cleaning & Waterproofing

Abatron, Inc.	60
800-445-1754 www.abatron.com	
Trow & Holden	59
800-451-4349 www.trowandholden.com	
Weathercap, Inc.	60
985-649-4000 www.weathercap.net	

Natural Building Stone

Vermont Verde Antique LLC	61
802-767-4421 www.vtverde.com	

ADVERTISING INQUIRIES

ASSOCIATE PUBLISHER
Jennifer Baldwin
 jenbaldwin1@msn.com
 718-619-7645



OLD HOUSE JOURNAL	LOG HOME LIVING
ARTS & CRAFTS HOMES	TIMBER HOME LIVING
NEW OLD HOUSE	COZY CABINS & COTTAGES
DESIGN CENTER SOURCEBOOK	DREAM HOME SHOWCASE
PERIOD HOMES	LOG & TIMBER HOME PLANNER
TRADITIONAL BUILDING	CABINLIFE.COM
OLDHOUSEONLINE.COM	LOGHOME.COM

Gaby's Shoppe Manufacturer of Fine Wrought Iron




Our extensive collection ranges from fine hand-finished wrought iron to richly grained stainless steel. Because we manufacture our products right here in the U.S., we are able to offer custom items such as curved bay windows or brackets sized specifically for your application.












View the complete Gaby's Shoppe catalog online: www.gabys.com
1311 Dragon St. • Dallas, Texas 75207 • 1-800-299-4229

DRIWOOD



Make your period home distinctive with ornamental wood mouldings from the premier source.

At Driwood we craft architecturally correct, hardwood mouldings perfectly designed for homes from any historic period. With more than 500 mouldings in stock, we have the moulding you need for your home.

 <p>2130 3" x 3/4" Colonial era moulding with palmette pattern appropriate for use as a chair rail or a casing moulding.</p>	 <p>3010 5" x 3 3/16" Crown moulding with acanthus leaf & floral pattern on shallow cove accented with bead rail, egg & dart detail, and banderol design.</p>
 <p>2133 3 7/8" x 3/4" Colonial era moulding piece with a floral design and vertical bead and barrel pattern.</p>	 <p>2195 2 3/4" x 2 3/16" Colonial era moulding with palmette pattern appropriate for use as a chair rail or a casing moulding.</p>
 <p>2139 3 3/16" x 2 15/16" Colonial era crown moulding with an acanthus leaf pattern and rope detail.</p>	 <p>2160 2 15/16" x 7/8" Casing moulding with a rope detail and triple bead and barrel pattern with simple plain faced and milled details.</p>
 <p>2148 3 1/2" x 15/16" Colonial era casing moulding with a pineapple patterned egg and dart detailed bolection.</p>	 <p>3067 2 15/16" x 3/4" Chair rail moulding with an inverted acanthus leaf pattern and a rope detail.</p>

View & Shop online at driwood.com today.
888-245-9663 (toll free) | sales@driwood.com



If you'd like to order a **gift** subscription for a colleague, just call 800-548-0148

Historical Products Showcase



Architectural Grille provides a complete array of custom grilles to meet commercial project needs.

Architectural Grille
800-387-6267; Fax: 718-832-1390
www.archgrille.com
Brooklyn, NY 11215

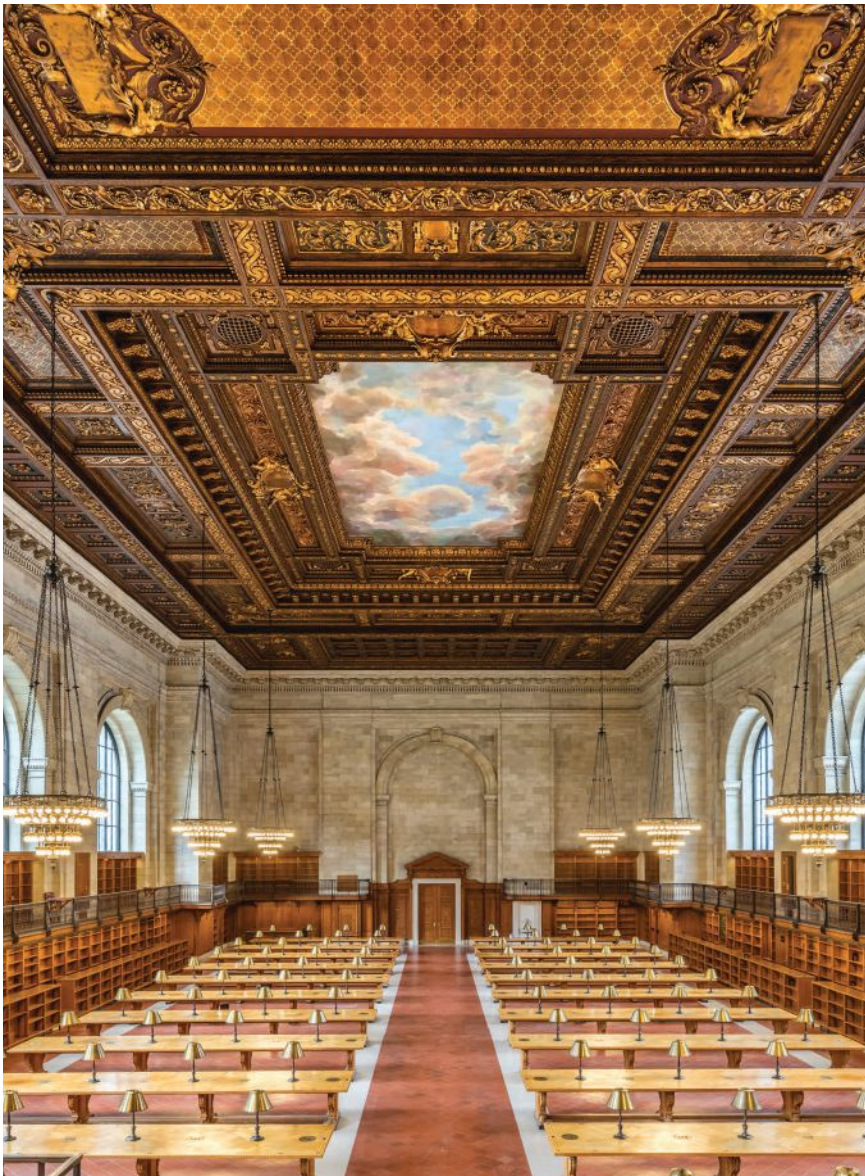
Manufacturer of custom grilles: perforated & linear bar grilles; radiator covers; aluminum, brass, steel & stainless steel; variety of finishes; stock sizes; water-jet & laser cutting.
Call for more information.

Bovard Studio, Inc.
641-472-2824; Fax: 641-472-0974
www.bovardstudio.com
Fairfield, IA 52556

Restorer, designer & fabricator of stained-glass windows: faceted glass, mosaics & hand-crafted wood, aluminum & steel frames; protective glazing systems vented for stained-glass conservation, U.S. patent #7607267; replicates lost stained-glass windows.
Call for more information.



Bovard Studio restored all of the stained glass for St. Mary of the Woods College, IN, plus added new vented storm glazing to the stained-glass windows.



EVERGREENE
Architectural Arts

CONSERVATION. RESTORATION. SPECIALTY CONSTRUCTION

CARE. CRAFT. COMMITMENT. CELEBRATING 40 YEARS
212.244.2800 | www.evergreene.com

ARCHITECTURAL GRILLE
CUSTOM DESIGNED, FABRICATED AND FINISHED

SPACKLE IN J-FRAME
BAR GRILLE

TO ORDER:
1.800.387.6267
P: 718.832.1200
F: 718.832.1390
ARCHGRILLE.COM

INDUSTRY LEADER IN ARCHITECTURAL GRILLES



TALK TO US!

@PeriodHomes

@TradBuilding

@TradBldgShow

Join us on Twitter for news and views about the world of traditional building and design.



Ornamental molding and custom millwork is the specialty of **Drivood**.

Drivood Moulding Company

888-245-9663; Fax: 843-669-4874

www.drivood.com

Florence, SC 29503

Supplier of molding: stock & custom moldings for residential & commercial projects; embossed moldings, custom millwork, mantels, entrances, cabinet & panel work, custom doors.

Call for more information.

EverGreene Architectural Arts

212-244-2800; Fax: 212-244-6204

www.evergreene.com

Brooklyn, NY 11232

Decorative-arts studio: murals, decorative painting, gilding, plaster, wood, metal, stone & mosaics; new design, conservation & restoration; ecclesiastical, institutional, public & commercial projects; offices in NYC & Chicago.

Call for more information.



EverGreene re-created the aluminum and gold leaf ceiling mural in the lobby and hallways of the Empire State Building; work also included reinstating historic glass panels in the lobby, designed and cut based on historic plans and photographs.



Gaby's Shoppe offers a selection of drapery hardware designs in six powder-coated finishes.

Gaby's Shoppe

800-299-4229; Fax: 214-748-7701

www.gabys.com

Dallas, TX 75207

Manufacturer of handcrafted decorative iron drapery hardware: for curved & angled bay windows & arches; 30 standard finishes; more than 100 finial options.

Call for more information.



CHADSWORTH INCORPORATED

COLUMNS ■ PERGOLAS ■ BALUSTRADES ■ MILLWORK ■ SHUTTERS

www.COLUMNS.com
1-800-COLUMNS

277 North Front Street, Historic Wilmington, NC 28401

(P): 800.486.2118 (F): 910.763.3191 sales@columns.com

Columns & Capitals



Plain tapered 10-ft. wood columns from Chadsworth's welcome customers into Mettler's Department Store in Naples, FL.

Chadsworth Columns

910-763-7600; Fax: 910-763-3191

www.columns.com

Wilmington, NC 28401

Manufacturer of authentically correct architectural columns: complete line of columns, piers, pilasters & posts for interior & exterior use; variety of sizes, styles & materials, including wood; more than 20 years.

Call for more information.



These fluted columns were supplied by Haddonstone (USA) Ltd.

Haddonstone (USA), Ltd.

719-948-4554; Fax: 719-948-4285

www.haddonstone.com

Pueblo, CO 81001

Manufacturer of classical & contemporary cast limestone: columns, balustrades, benches, planters, pavers, fountains, gazebos, interior ornament, mantels, statuary & more; 500+ designs; custom designs.

Call for more information.

Historical Arts & Casting, Inc.

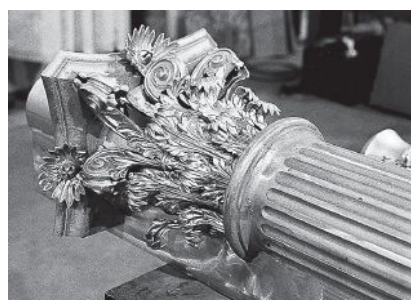
800-225-1414; Fax: 801-280-2493

www.historicalarts.com

West Jordan, UT 84081

Designer & custom fabricator of ornamental metalwork: doors, windows, hardware, stairs, balustrades, registers, fences, lighting, gutters, columns, weathervanes, snow guards, cupolas, planters, fireplace tools & more; iron, bronze, aluminum & steel; restoration services.

Call for more information.



Historical Arts & Casting designed and fabricated the Corinthian capital for this fluted column.



This intricate canopy with cresting and columns was custom fabricated by Robinson Iron Corp. for the Raffles Hotel in Singapore.

Robinson Iron Corp.

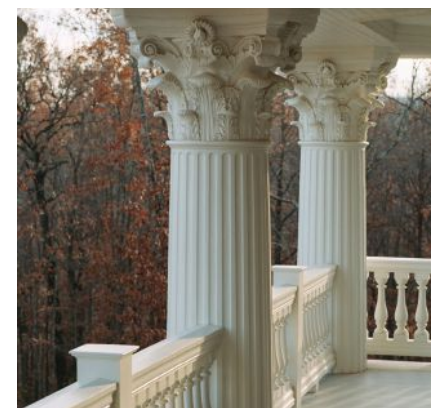
800-824-2157; Fax: 256-329-8960

www.robinsoniron.com

Alexander City, AL 35010

Designer & installer of custom metalwork: fountains, columns, fences, doors, railings, sculpture, benches, grilles, cresting, street lighting & gazebos; wrought iron/steel, aluminum, bronze & cast iron; historical restoration.

Call for more information.



Worthington Millwork makes wood columns for interior and exterior applications.

Worthington Millwork

800-872-1608; Fax: 850-640-0488

www.worthingtonmillwork.com

Panama City Beach, FL 32413

Distributor of architecturally correct columns: adjusted fluting, priming & asphaltum; mouldings, balustrades, pediments, ceiling medallions, niches, pedestals & brackets.



Made in the USA
Over 300 Styles
Custom Designs
Any Size
And So Much More!

COPPA WOODWORKING, INC.
(310) 548-4142 www.coppawoodworking.com

**WOOD SCREEN DOORS
& STORM DOORS**

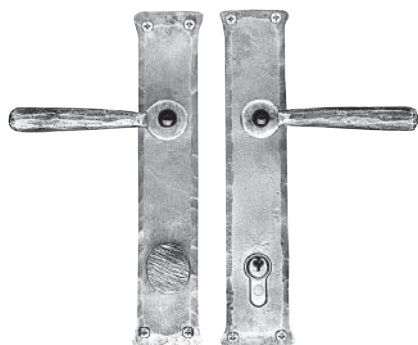
E. R. BUTLER & Co.
MANUFACTURERS

*See Our Ad
On the Inside Back Cover*

WWW.ERBUTLER.COM

When contacting companies you've seen in the issue, please tell them you saw them in *Traditional Building*.

Doors, Entryways & Hardware



Acorn manufactured these forged-iron door handles, back plates and keyholes.

Acorn Forged Iron
508-339-4500; Fax: 508-339-0104
www.acornmfg.com
Mansfield, MA 02048

Supplier of forged-iron & forged stainless-steel decorative hardware: cabinet, shutter, gate & interior & exterior door hardware; cast-iron registers & grilles; hand-forged bath accessories; hand-forged decorative-head nails.

Call for more information.

Coppa Woodworking
310-548-4142; Fax: 310-548-6740
www.coppawoodworking.com
San Pedro, CA 90731

Manufacturer of wood screen doors & storm doors: more than 300 styles; pine, Douglas fir, oak, mahogany, cedar, knotty alder & redwood; any size; many options; arch & roundtop, double, French doors, doggie doors, window screens & more.

Call for more information.



Craftsman/Mission style doors are available from **Coppa Woodworking**.

E.R. Butler & Co.
212-925-3565; Fax: 212-925-3305
www.erbutler.com
New York, NY 10012

Manufacturer of historically accurate, premium-quality hardware for doors, windows & furniture: brass, bronze, nickel, silver & wrought iron; complete design selections of Early American period hardware; many finishes.

Call for more information.



This ornate door handle and matching escutcheon are the work of **E.R. Butler**.

Historical Arts & Casting, Inc.
800-225-1414; Fax: 801-280-2493
www.historicalarts.com
West Jordan, UT 84081

Designer & custom fabricator of ornamental metalwork: doors, windows, hardware, stairs, balustrades, registers, fences, lighting, gutters, columns, weathervanes, snow guards, cupolas, planters, fireplace tools & more; iron, bronze, aluminum & steel; restoration services.

Call for more information.



Historical Arts & Casting, Inc. designs, manufactures and installs metal doors, windows and other exterior elements.

House of Antique Hardware
888-223-2545; Fax: 503-233-1312
www.houseofantiquehardware.com
Portland, OR 97232

Manufacturer & supplier of vintage reproduction door, window, shutter, cabinet & furniture hardware & accessories: Federal, Victorian, Colonial Revival, Craftsman & Deco styles; lighting fixtures, push-button switches & plates; bathroom accessories; registers & grilles.

Call for more information.



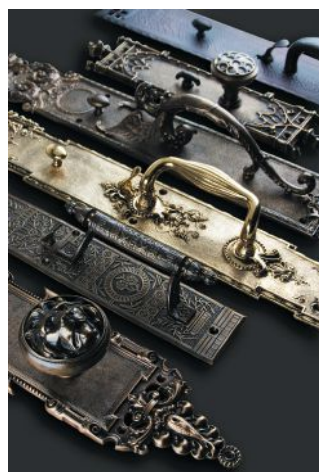
BRONZE DOORS AND BRONZE SCIENCE RESTORATION, UTAH STATE CAPITOL



HISTORICAL ARTS & CASTING, INC.
Award-winning architectural and ornamental metalwork since 1973
 www.historicalarts.com · 1(800) 225-1414



This traditional door set and steeple-tip door hinge are available from **House of Antique Hardware** in nine finishes.



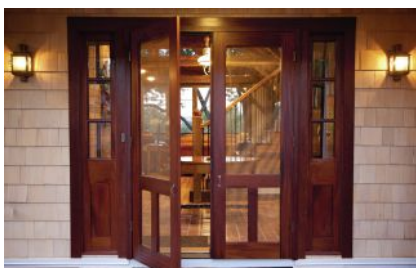
Vintage Hardware & Lighting offers a wide selection of antique-reproduction entry hardware, as well as hardware for interior doors, cabinets, furniture and windows.

Vintage Hardware & Lighting

360-379-9030; Fax: 360-379-9029
 www.vintagehardware.com
 Port Townsend, WA 98368

Supplier of door hardware, window hardware: window locks & sash lifts; drapery hardware; bathroom accessories; reproduction lighting; weathervanes.

Call for more information.



This solid mahogany double "Old Fashion" screen/storm door with satin nickel hardware is available from **Vintage Doors**.

Vintage Doors

800-787-2001; Fax: 315-324-6531
 www.vintagedoors.com
 Hammond, NY 13646

Manufacturer of custom exterior & interior wood doors: door hardware, screen doors & storm doors; traditional, Craftsman & Victorian Styles; solid wood & glass panels available.

Call for more information.

www.traditionalbuilding.com

Von Morris by Eric Morris & Company

856-997-0222; Fax: 856-294-5116
 www.ericmorrisandco.com
 Pennsauken, NJ 08109

Fabricator of architectural hardware: knobs, levers, locks, hinges & cabinet hardware; 30 different finishes.

Call for more information.



Visit...

WWW.VINTAGEDOORS.COM

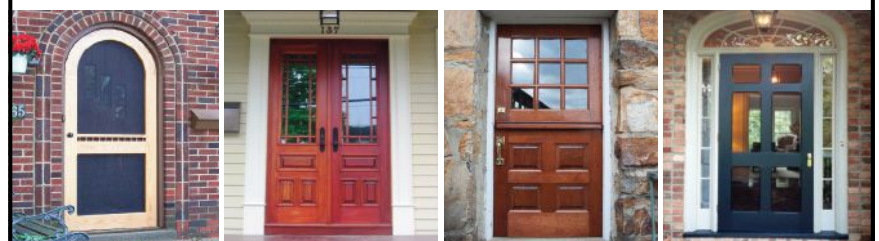
...For even more inspiration!

DISTINCTIVE SOLID WOOD DOORS FOR YOUR HOME

Handmade by our craftsmen in any size, design and wood!

*Screen & Storm Doors - Entrance Units - Interior Doors
 Dutch - French - Lower - Three Season Porches & More...*

FOR CATALOG OR QUOTE, CALL: 1 (800) 787-2001



This weave knob is one of many available from **Von Morris**.



Wiemann Metalcraft fabricated this bronze door with insulated glass.

Wiemann Metalcraft

918-592-1700; Fax: 918-592-2385
 www.wmcraft.com
 Tulsa, OK 74107

Designer, fabricator, finisher & installer of fine quality custom ornamental metalwork: railings, fences, gates, custom, hot-rolled steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940.

Call for more information.

Commercial **Traditional** **Energy Efficient** **Custom** **Invisible**

Allied Window, Inc
 MANUFACTURER OF CUSTOM
"Invisible" Storm Windows®

Interior & Exterior Windows • Custom Colors • Custom Screens & Special Shapes • Historic, Residential & Commercial Buildings
 Energy Savings—Approximately 50% Sound Reduction—Up to 50%

11111 Canal Road, Cincinnati, Ohio 45241 • www.alliedwindow.com • 800.445.5411 • fax: 513.559.1883

Windows, Shutters & Hardware



These "S" shutter holdbacks are available in various sizes from **Acorn Mfg.**

Acorn Forged Iron
 508-339-4500; Fax: 508-339-0104
 www.acornmfg.com
 Mansfield, MA 02048

Supplier of forged-iron & forged stainless-steel decorative hardware: cabinet, shutter, gate & interior & exterior door hardware; cast-iron registers & grilles; hand-forged bath accessories; hand-forged decorative-head nails.

Call for more information.

Allied Window, Inc.
 800-445-5411; Fax: 513-559-1883
 www.alliedwindow.com
 Cincinnati, OH 45241

Manufacturer & installer of Invisible Storm Windows®: custom colors, shapes & glazing materials; aluminum; sound-reduction protection from UV & vandalism; interior & exterior; commercial & residential applications.

Call for more information.



Allied Window supplied Magnetic One Lite series interior storm windows in a custom color for the Virginia Military Institute in Lexington, VA.



Architectural Components restored the double-hung windows for the Customs House Maritime Museum in Newburyport, MA; the windows feature laminated single-pane glass and are counter-balanced with weights and pulleys.

Architectural Components, Inc.
 413-367-9441; Fax: 413-367-9461
 www.architecturalcomponentsinc.com
 Montague, MA 01351

Manufacturer of reproduction & custom wood windows & doors: true-divided lites with insulated glass; wood-framed storm sash & screens; renovation & restoration projects & new construction; paneled walls & storefronts; catalog \$5.

Call for more information.



This bronze lift was fabricated by **Architectural Resource Center**.

Architectural Resource Center
 800-370-8808; Fax: 603-942-7465
 www.aresource.com

Northwood, NH 03261
 Supplier of historically styled hardware: sash pulleys, lifts & locks, sash chain & rope; weather stripping; patented sash weights.

Call for more information.



Crittall Windows offers traditionally styled windows and doors made with recycled and recyclable-steel content.

Crittall Windows, Ltd.
 011-44-1376530800; Fax: 011-44-1376530801
 www.crittall-windows.com
 Witham, Essex CM8 3UN U.K.

Manufacturer of steel window & door systems: single hung, casement, pivot, awning, projecting, fixed lite & round top; historical restoration & renovation; minimum maintenance; custom shapes & sizes; recycled/recyclable steel content.

Call for more information.

E.R. Butler & Co.
 212-925-3565; Fax: 212-925-3305
 www.erbutler.com
 New York, NY 10012

Manufacturer of historically accurate, premium-quality hardware for doors, windows & furniture: brass, bronze, nickel, silver & wrought iron; complete design selections of Early American period hardware; many finishes.

Call for more information.



Hand-forged wrought-iron drapery hardware from **Gaby's Shoppe** is offered in many styles.

Gaby's Shoppe
 800-299-4229; Fax: 214-748-7701
 www.gabys.com
 Dallas, TX 75207

Manufacturer of handcrafted decorative iron drapery hardware: for curved & angled bay windows & arches; 30 standard finishes; more than 100 finial options.

Call for more information.



THE PHILADELPHIA CHAPTER OF THE INSTITUTE OF
CLASSICAL ARCHITECTURE & ART
SECOND BIENNIAL TRUMBAUER AWARDS

CALL FOR ENTRIES

ELIGIBILITY

Eligible projects have been completed within the past 10 years and either built in or designed/built by a firm in PA, DE, MD or NJ (see website for boundaries).

SUBMISSIONS DUE BY JULY 20.

The winners and finalists will be recognized at a ceremonial reception and cocktail gala at the Union League of Philadelphia on Thursday, November 15th, 2018. Early-bird pricing is available now at: icaa-philadelphia.ticketleap.com/trumbauerawards2018

FOR MORE DETAILS ON HOW TO SUBMIT YOUR PROJECT VISIT:
CLASSICIST-PHILA.ORG/TRUMBAUERAWARDS

We are proud to salute our 2018 jewel sponsors:

Tague Lumber Inc. / Norwood Windows & Doors; Marvin Windows and Doors; North American Window and Door, Co.; Archer & Buchanan Architecture; Freeman's Auctioneers and Appraisers; John Milner Architects; Pinemar; Rittenhouse Builders; Spire Builders; and Dyad Communications.



www.phelpscompany.com



Historical Arts & Casting restored and re-installed the cast-iron windows in this building in New York City.

Historical Arts & Casting, Inc.

800-225-1414; Fax: 801-280-2493

www.historicalarts.com

West Jordan, UT 84081

Designer & custom fabricator of ornamental metalwork: doors, windows, hardware, stairs, balustrades, registers, fences, lighting, gutters, columns, weathervanes, snow guards, cupolas, planters, fireplace tools & more; iron, bronze, aluminum & steel; restoration services.

Call for more information.

Infrared Proof!

Save Energy and your Historic Windows

10 Minute Install / 10 Seconds In / 10 Seconds Out

Innerglass® Window Systems, LLC
The Compression-Fit Advantage

stormwindows.com • 800.743.6207

Hope's Windows, Inc.

716-665-5124; Fax: 716-665-3365

www.hopeswindows.com

Jamestown, NY 14702

Manufacturer of custom-designed windows & doors: handcrafted, hot-rolled, solid-steel & solid-bronze window & door systems.

House of Antique Hardware

888-223-2545; Fax: 503-233-1312

www.houseofantiquehardware.com

Portland, OR 97232

Manufacturer & supplier of vintage reproduction door, window, shutter, cabinet & furniture hardware & accessories: Federal, Victorian, Colonial Revival, Craftsman & Deco styles; lighting fixtures, push-button switches & plates; bathroom accessories; registers & grilles.

Call for more information.

In October of this year,
Traditional Building
turns 30!

Mortise & Tenon Red Cedar Shutters
Any size, any style, any color

shuttercraft.com

Interior & Exterior Wood Shutters
Family Owned - Made in the USA

Call (203) 245-2608 - Madison, CT

INNERVISION®

THINK CRITTALL
THINK EXTERIORS?

...THINK AGAIN

WWW.CRITTALL-WINDOWS.CO.UK



Indow's custom designed interior storm windows can be made to fit any size and configuration.

Indow

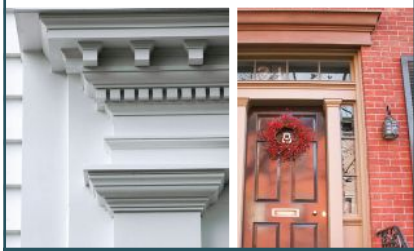
503-284-2260; Fax: 503-284-2261

www.indowwindows.com

Portland, OR 97227

Manufacturer of handcrafted acrylic interior storms: edged in Compression Tube that presses into place without a track or magnetic system to preserve historic windows while creating comfort, energy efficiency, savings & noise reduction; laser-measured for out-of-square openings; for residential & commercial projects.

Call for more information.



This building features **Kolbe's** Teutonic® Series tilt-turn windows; the hardware allows the windows to either tilt or swivel.

Kolbe Windows & Doors

800-955-8177; Fax: 715-845-8270

www.kolbe-kolbe.com

Wausau, WI 54401

Manufacturer of windows & doors: traditional details; extruded aluminum-clad, roll-formed aluminum-clad, wood & vinyl energy-efficient windows & doors; fiberglass doors.



Parrett Windows & Doors replicated the historical sash windows for the Dallas County Courthouse in Adel, IA.

Parrett Windows & Doors

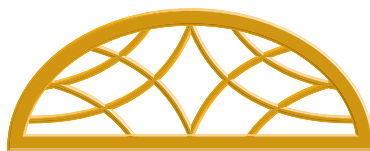
800-541-9527; Fax: 877-238-2452

www.parrettwindows.com

Dorchester, WI 54425

Manufacturer of custom, quality wood & aluminum-clad windows & doors: vast array of options, numerous wood species & complete finishing capabilities; historical replications; screen doors, casings & moldings.

Call for more information.



ARCHITECTURAL COMPONENTS

Finely Crafted Reproduction and Custom Windows, Doors & Architectural Millwork

413-367-9441

architecturalcomponentsinc.com



Innerglass Window Systems supplied interior glass storm windows for this historic building.

Innerglass Window Systems

800-743-6207; Fax: 860-651-4789

www.stormwindows.com

Simsbury, CT 06070

Manufacturer of custom glass interior storm windows for energy conservation & soundproofing: out performs almost any replacement; automatically conforms to the opening, compensating for out-of-square conditions; no sub-frame needed; all glazing options available; easy do-it-yourself installation.

Call for more information.

John Wright Co.

800-444-9364; Fax: 717-252-3392

www.jwright.com

Wrightsville, PA 17368

Manufacturer of reproduction building hardware: cast iron & forged steel; specializes in shutter and window hardware; for fine renovation & quality new construction; since 1880.



Marvin Windows supplied clad Ultimate double-hung windows for the McLane and Fahey residence halls at Dartmouth College, Hanover, NH, a LEED Gold project.

Marvin Windows and Doors

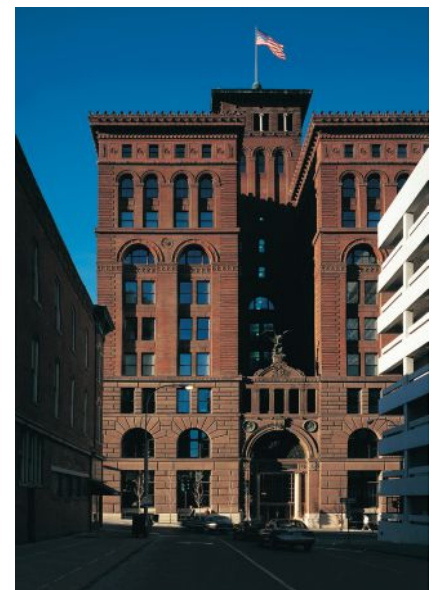
888-537-7828; Fax: 651-452-3074

www.marvin.com

Warroad, MN 56763

Manufacturer of wood windows & doors: clad & clad-wood; special shapes; custom sizes & more than 11,000 standard sizes; historical replicas; interior & exterior storm windows.

Call for more information.



Pella's Architect Series wood and aluminum-clad wood double-hung windows feature a historically correct appearance and enhanced performance for this historic building.

Pella Windows and Doors

800-847-3552; Fax: 641-621-3466
www.pella.com
Pella, IA 50219

Manufacturer of windows & doors: wood, aluminum-clad wood, fiberglass, & vinyl; variety of wood types; renovation & new construction; experience on National Park Service projects; standard & custom sizes, shapes, colors, styles, muntin patterns & exterior casings/brickmolds; many glass & hardware options; high transparency screens, wide variety of installation systems, local representation & service.



This solid-brass casement fastener from **Phelps Company** is shown in an oil-rubbed bronze finish; the firm manufactures a complete line of traditionally styled hardware for wood casement windows.

Phelps Company

603-336-6213; Fax: 603-336-6085
www.phelpscompany.com
Hinsdale, NH 03451

Manufacturer of traditional hot-forged solid-brass window hardware: sash pulleys, weights, chains, lifts & locks; stop-bead adjusters, spring bolts, window ventilation locks, push-out casement hardware, storm/screen-door latch sets & more.

Call for more information.



Shuttercraft manufactured the mortise-&-tenon shutters for this building.

Shuttercraft, Inc.

203-245-2608; Fax: 203-245-5969
www.shuttercraft.com
Madison, CT 06443

Manufacturer of authentic mortise-&-tenon wood shutters: cedar & mahogany, exterior movable & fixed louver, board & batten & raised panel; cut-outs, capping, arches & more; hinges & holdbacks; interior louvers, Colonial panels & open frame; painting services; made in USA; family-owned company since 1986; ships nationwide.

Call for more information.

TRADITIONAL BRASS HARDWARE
"A Veteran Owned Business"

Lifts

Locks

Chains

Pulleys
CUSTOM CUT
Square & Round
Phillips & Slotted Screws

Stackable Weights
Iron & Lead
Square or Round

Customer Service
1-800-370-8808
www.aresource.com

Vintage Hardware & Lighting

360-379-9030; Fax: 360-379-9029
www.vintagehardware.com
Port Townsend, WA 98368

Supplier of door hardware, window hardware: window locks & sash lifts; drapery hardware; bathroom accessories; reproduction lighting; weathervanes.

Call for more information.

Wiemann Metalcraft

918-592-1700; Fax: 918-592-2385
www.wmcraft.com
Tulsa, OK 74107

Designer, fabricator, finisher & installer of fine quality custom ornamental metalwork: railings, fences, gates, custom, hot-rolled steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940.

Call for more information.

Shutter Hardware
by Acorn.



Visit us at AIA NYC in June Booth 238



Acorn Manufacturing Co., Inc.
1.800.835.0121
www.acornmfg.com

Quality & Craftsmanship forged together for a lifetime.



Woodstone custom fabricated this fanlite using traditional methods of wood joinery.

Woodstone Company

603-445-2449; Fax: 603-445-0174
www.woodstone.com
North Walpole, NH 03609

Custom fabricator, distributor & supplier of doors, windows & shutters: paneled doors & complete entryways; storm & screen doors; screen windows; most wood species; coped mortise-&-tenon joinery; historical & landmark specifications.

Storefronts & Façades

Bonstone Materials Corp.

262-363-9877; Fax: 262-363-9879

www.bonstone.com

Mukwonago, WI 53149

Manufacturer of epoxy-repair & fabrication materials for stone: products used for highrise stone-façade anchoring, full mitered corners, fabrication, backer-block fastening, repair of filigree, crack injection & patching.



Kopelov Cut Stone quarried and fabricated the brownstone for the renovation of the old Chronicle Building, San Francisco, CA.

Kopelov Cut Stone, Inc.

812-675-0099; No Fax

www.kopelovcutstone.com

Bedford, IN 47421

Fabricator of architectural stone elements: for restoration contractors, commercial builders, custom designers & homeowners; high quality cutting & decorative carving; façades, mantels, monuments, sills, capitals & columns.



Boston Valley Terra Cotta manufactured approximately 1,000 ornate architectural terra-cotta replacement elements for this building.

Boston Valley Terra Cotta

716-649-7490; Fax: 716-649-7688

www.bostonvalley.com

Orchard Park, NY 14127

Supplier of architectural terra-cotta façade & roof tile products: historically accurate; for restoration & new construction.



Kreilick Conservation worked on the Cooper-Hewitt entry canopy.

Kreilick Conservation LLC.

215-572-6616; No Fax

www.kreilickconservation.com

Oreland, PA 19075

Provider of laboratory & field analysis of materials, condition assessments, emergency response & stabilization, treatment, documentation & maintenance of metallic & masonry architectural elements, monuments, sculpture & objects; founded in 1996.

Call for more information.

Rugo Stone, LLC

571-642-2672; Fax: 571-642-2678

www.rugostone.com

Lorton, VA 22079

Masonry contractor: exterior stonework & facade restoration.



Corinthian columns from **Haddonstone** create an imposing entrance at a major retail development.

Haddonstone (USA), Ltd.

719-948-4554; Fax: 719-948-4285

www.haddonstone.com

Pueblo, CO 81001

Manufacturer of classical & contemporary cast limestone: columns, balustrades, benches, planters, pavers, fountains, gazebos, interior ornament, mantels, statuary & more; 500+ designs; custom designs.

Call for more information.



Vermont Verde provided the serpentine stone for this facade.

Vermont Verde Antique LLC

802-767-4421; Fax: 802-767-4423

www.vtverde.com

Pittsford, VT 05763

Quarrier of green serpentine stone for commercial & residential applications: available in slabs, tiles & blocks; large 40,000 sq. ft. main facility available to tour; LEED certified for commercial & residential use.

Call for more information.

**GAVIN
HISTORICAL
BRICKS**

319-354-5251

Antique Brick and Stone
Shipped Nationwide Direct:

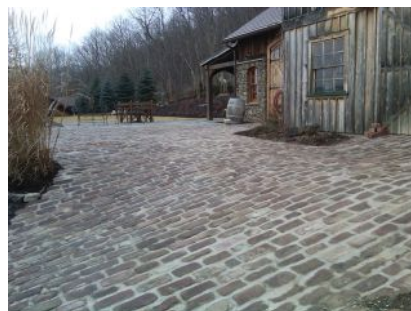
Street Pavers
Granite Cobblestone
Building Bricks
Clinker Bricks
Custom Brick Matching

info@HistoricalBricks.com
www.HistoricalBricks.com



Antique Brewery Bricks

Landscape & Streetscape Specialties



Gavin Historical Bricks supplied its reclaimed Old English Cobblestone for this driveway in the Fingerlakes region of NY.

Gavin Historical Bricks, Inc.

319-354-5251; Fax: 319-688-3086

www.historicalbricks.com

Iowa City, IA 52245

Supplier of antique paving & building materials: specialists in new construction with an Old World look as well as historic restoration projects; pavers, cobblestones, clinker brick & more.

Call for more information.

Haddonstone (USA), Ltd.

719-948-4554; Fax: 719-948-4285

www.haddonstone.com

Pueblo, CO 81001

Manufacturer of classical & contemporary cast limestone: columns, balustrades, benches, planters, pavers, fountains, gazebos, interior ornament, mantels, statuary & more; 500+ designs; custom designs.

Call for more information.



This aluminum and bronze fountain by **Historical Arts & Casting** stands 12 ft. 3 in. tall with a bowl diameter of 19 ft. 2½ in.

Historical Arts & Casting, Inc.

800-225-1414; Fax: 801-280-2493

www.historicalarts.com

West Jordan, UT 84081

Designer & custom fabricator of ornamental metalwork: doors, windows, hardware, stairs, balustrades, registers, fences, lighting, gutters, columns, weathervanes, snow guards, cupolas, planters, fireplace tools & more; iron, bronze, aluminum & steel; restoration services.

Call for more information.



Haddonstone created this 176-in.-tall Large Lotus tiered fountain for a client in the US.

RESTORATION / REPLICATION / CUSTOM CASTING

Robinson Iron



BRONZE / IRON / ALUMINUM

Artisans of cast metal since 1946.



800.824.2157
256.329.8486
robinsoniron.com



The Forged Iron Equivalent of A Firm Handshake.

At Wiemann Metalcraft, we've stood by our word for over 77 years. So when we tell you we can handle a seemingly impossible job, you can believe it. Simply put, when others can't,

WIEMANN CAN.



WIEMANN
METALCRAFT

639 West 41st Street, Tulsa, Oklahoma 74107 Phone (918)592-1700 Fax (918)592-2385 Email sales@wmcraft.com



King Architectural Metals fabricated this gate with scroll components and spear points.

King Architectural Metals

800-542-2379; Fax: 800-948-5558

www.kingmetals.com

Dallas, TX 75228

Wholesale supplier of ornamental & architectural metal components: staircases, handrails, gates, fences, furniture, mailboxes, lampposts, finials & fireplace screens; wrought iron & aluminum.

Call for more information.

Kreilick Conservation LLC.

215-572-6616; No Fax

www.kreilickconservation.com

Oreland, PA 19075

Provider of laboratory & field analysis: materials, condition assessments, emergency response & stabilization, treatment, documentation & maintenance of metallic & masonry architectural elements, monuments, sculpture & objects; founded in 1996.

Call for more information.



Kreilick Conservation worked on the Soldiers & Sailors Monument at the Dayton National Cemetery.



R. Alden Marshall & Assoc. restored the Texas Heroes monument in Galveston, TX.

R. Alden Marshall & Associates

717-805-3114; No Fax

www.raldenmarshall.com

New Cumberland, PA 17070

Material science laboratory & preservation studio for the conservation of art & architecture: monuments, sculptures, paintings & murals & more; projects include national historic sites as well as a ecclesiastical commissions.

Call for more information.



Robinson Iron custom fabricated this three-tiered, cast-iron fountain.

Robinson Iron Corp.

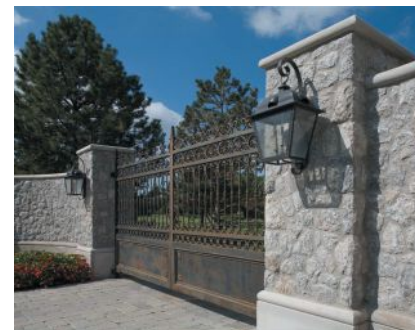
800-824-2157; Fax: 256-329-8960

www.robinsoniron.com

Alexander City, AL 35010

Designer & installer of custom metalwork: fountains, columns, fences, doors, railings, sculpture, benches, grilles, cresting, street lighting & gazebos; wrought iron/steel, aluminum, bronze & cast iron; historical restoration.

Call for more information.



Wiemann designed and fabricated these steel gates with forged components.

Wiemann Metalcraft

918-592-1700; Fax: 918-592-2385

www.wmcraft.com

Tulsa, OK 74107

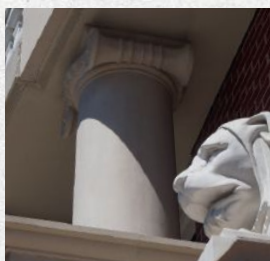
Designer, fabricator, finisher & installer of fine quality custom ornamental metalwork: railings, fences, gates, custom, hot-rolled steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940.

Call for more information.



HANDMADE IN
Colorado

In Colorado, we have a dedicated team who strive to create the finest stonework for your projects, from balustrades and porches to bespoke designs.



Superior stonework for new build and restoration
Call 866 733 8225 www.haddonstone.com

To find out more about Haddonstone's skills, visit www.haddonstone.com/handmade



HADDONSTONE



*Art in
Architecture*

R. Alden Marshall & Associates, LLC

Conservation Studios for the Preservation of Art & Cultural
Properties & Gold Leaf Studio
Texas, Louisiana, Pennsylvania and Maine
ram@raldenmarshall.com ~ RALdenMarshall.com ~ (512) 470-8540
Follow us on Facebook!

*Fair Park Federal Tower, Dallas, Texas
Restoration & Recreation of the Damaged or Destroyed Art Including
the Gilt Eagle Sculpture atop the Tower
National Trust Award Winner for Restoration*

**In October of this year,
Traditional Building
turns 30!**



TALK TO US!

@PeriodHomes
@TradBuilding
@TradBldgShow

Join us on Twitter for news and views about
the world of traditional building and design.

© Halliwin Mason Photography, LLC

Bronze Canopy Restoration
Cooper-Hewitt, Smithsonian Design Museum
completed 2017



Kreilick Conservation, LLC
Architecture • Sculpture • Objects
skreilick@kreilickconservation.com
www.kreilickconservation.com

Vintage Hardware and Lighting



2000 West Sims Way, Port Townsend, WA 98368
 P; 360-379-9030 - www.vintagehardware.com -

Exterior Lighting



This lamppost is one of many styles available from **Authentic Designs**.



Ball & Ball Lighting manufactured these gas-lighting fixtures.

Authentic Designs
 800-844-9416; Fax: 802-394-2422
www.authenticdesigns.com
 West Rupert, VT 05776

Manufacturer of historical lighting fixtures & specialty metal products: chandeliers, lanterns, sconces & table lamps crafted in brass, copper, terne metal & Vermont maple; Early American & Colonial; CUL/UL listed for wet & damp locations; library binder \$30.

Call for more information.

Ball & Ball Lighting
 610-363-7330; Fax: 610-363-7639
www.ballandball.com
 Exton, PA 19341

Fabricator of historical lighting: chandeliers, sconces, pendants, lanterns & table lamps; Early American & Turn of the Century styles; antique & salvaged originals, new designs, custom work & reproductions; stair handrails; restoration services.

Call for more information.



This New Orleans French Quarter-style gas lantern is one of many historical models available from **Bevolo Gas & Electric**.



This 26 1/2-in.-tall lantern from **Deep Landing Workshop** has an antique-copper finish.


Deep Landing Workshop
 877-778-4042; Fax: 410-778-4070
www.deelandingworkshop.com
 Chestertown, MD 21620

Manufacturer of custom lighting fixtures: chandeliers, sconces, pendants & lanterns; new designs, historic reproductions & custom work; handcrafted in wood, tin, brass or copper; glass, mica or alabaster shades.

Call for more information.



VERMONT
HANDMADE
LIGHTING



AUTHENTIC DESIGNS

West Rupert, Vermont
800 844-9416
www.AuthenticDesigns.com

UL SM SC 521



TIMELESS QUALITY

Open flame burning is an optional light source available in most of our fixture designs or custom made to match your own design. We offer an electronic ignition option for gas burning lanterns, which can be configured to run dusk to dawn. These igniters also have a feature that will relight the flame if it gets blown out by high winds. Ignition systems are proudly US made.

Ball and Ball continues to create authentic reproductions of period designs using period fabrication techniques and superior craftsmanship. We have over 65 years of experience fabricating reproductions of lighting fixtures.




EXTON, PENNSYLVANIA 1.800.257.3711 WWW.BALLANDBALL.COM



This lantern at Yale University's Silliman College was restored by **Grand Light**.

Grand Light
800-922-1469; Fax: 203-828-6307
www.grandlight.com
Seymour, CT 06483

Restorer of historic lighting fixtures & manufacturer of custom lighting fixtures: metal fabrication, glass fabrication, metal finishing, polishing, painting, welding, abrasive blasting; historical replication & reproduction.

Call for more information.



Part of **Heritage Metalworks'** Scofield collection, this New England barn wall lantern with a bronzed copper finish and antiqued mirror was drawn from the Historic Deerfield museum in Massachusetts. Photo: Jody Doyle

www.traditionalbuilding.com

Heritage Metalworks

610-518-3999; Fax: 610-518-7264
www.heritage-metalworks.com
Downingtown, PA 19335

Atelier of skilled blacksmiths & craftsmen: exclusively to trade; lighting, hardware, gates & railings; custom & signature lines available in iron, brass, bronze, copper, nickel, zinc & stainless steel.



The Sylvania street lamp from **Herwig Lighting** can be obtained with a 10- or 12-ft.-tall post and single, twin or quad-arm units.

Herwig Lighting

800-643-9523; Fax: 479-968-6422
www.herwig.com
Russellville, AR 72811

Designer & manufacturer of handcrafted cast metalwork: period-design lanterns, street lighting, posts, custom outdoor lighting, street clocks, benches, bollards, custom plaques, signs & more; aluminum & bronze; since 1908.

Call for more information.

Historical Arts & Casting, Inc.

800-225-1414; Fax: 801-280-2493
www.historicalarts.com
West Jordan, UT 84081

Designer & custom fabricator of ornamental metalwork: doors, windows, hardware, stairs, balustrades, registers, fences, lighting, gutters, columns, weathervanes, snow guards, cupolas, planters, fireplace tools & more; iron, bronze, aluminum & steel; restoration services.

Call for more information.

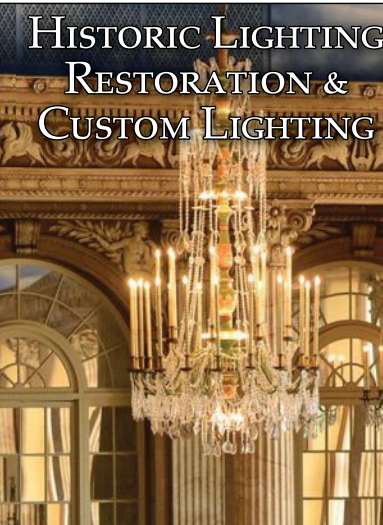


Historical Arts & Casting, Inc. custom fabricated this cast-metal gas-burning lantern.



This Cape Cod flush ceiling light with clear seedy glass is available from **House of Antique Hardware**, it features solid brass construction, authentic aged patina and is CUL Listed for damp locations.

HISTORIC LIGHTING
RESTORATION &
CUSTOM LIGHTING



GRAND LIGHT
*American Artisans at Work
Preserving History*
GrandLight.com 1-800-922-1469
Seymour, CT

House of Antique Hardware

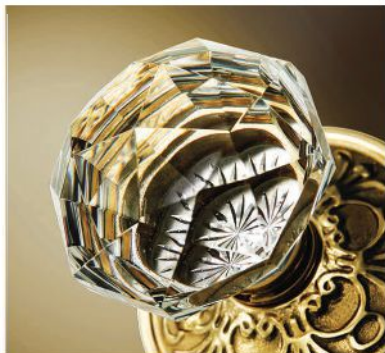
888-223-2545; Fax: 503-233-1312
www.houseofantiquehardware.com
Portland, OR 97232

Manufacturer & supplier of vintage reproduction door, window, shutter, cabinet & furniture hardware & accessories: Federal, Victorian, Colonial Revival, Craftsman & Deco styles; lighting fixtures, push-button switches & plates; bathroom accessories; registers & grilles.

Call for more information.

HOUSE OF ANTIQUE HARDWARE

Period Perfect for the Traditional Builder



Join Our Professional Trade Partner Program

Everyday Savings • Dedicated Support • Free Shipping

www.HouseofAntiqueHardware.com/tradeplus

OUT DOOR LIGHTING HERWIG FIXTURES

SINCE 1908
DESIGNER & MANUFACTURERS
OF FINE LIGHTING FIXTURES
& ACCESSORIES



CAST ALUMINUM LIGHT FIXTURES, POSTS,
BOLLARDS, BENCHES & STREET CLOCKS
MOUNTINGS: WALL, BRACKET, POST & PIER
HUNDREDS OF STANDARD DESIGNS & SIZES
HANDCRAFTED QUALITY
HERWIG LIGHTING
P.O. BOX 768 RUSSELLVILLE, AR 72811
WWW.HERWIG.COM
phone: 479-968-2621 fax: 479-968-6422

Drop Dead Elegance



Deep Landing Workshop

115 Deep Landing Rd
Chestertown Maryland 21620
877-778-4042 fax 410-778-4070
www.deeplandingworkshop.com



SAINT LOUIS ANTIQUE LIGHTING CO.
803 North 18th Street, St. Louis, MO 63107
Phone: (314) 863-1414 Email: info@slalco.com

St. Louis Antique Lighting Co. supplied this historic exterior light fixture for the University of Chicago.



Vintage Hardware and Lighting manufactures indoor and outdoor lighting fixtures, including this wall-mounted sconce.

Vintage Hardware & Lighting

360-379-9030; Fax: 360-379-9029
www.vintagehardware.com

Port Townsend, WA 98368
Supplier of door hardware, window hardware: window locks & sash lifts; drapery hardware; bathroom accessories; reproduction lighting; weathervanes.

Call for more information.

St. Louis Antique Lighting Co.

314-863-1414; Fax: 314-863-6702
www.slalco.com

Saint Louis, MO 63130

Manufacturer & supplier of architectural lighting: all styles; historical reproductions & custom lighting; restoration services; commercial & ecclesiastical projects.

Call for more information.



Steven Handelman produces handcrafted exterior lanterns with a variety of finishes.

Steven Handelman Studios

805-962-5119; Fax: 805-966-9529
www.stevenhandelmanstudios.com

Santa Barbara, CA 93103

Manufacturer of hand-forged traditional lighting, grilles & fireplace accessories: many types & styles of lighting & grilles; fireplace screens, grates & inserts; historic reproduction & restoration services.

Call for more information.



Wiemann Metalcraft custom manufactured this lantern in bronze.

Wiemann Metalcraft

918-592-1700; Fax: 918-592-2385
www.wmcraft.com

Tulsa, OK 74107

Designer, fabricator, finisher & installer of fine quality custom ornamental metalwork: railings, fences, gates, custom, hot-rolled steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940.

Call for more information.



www.stevenhandelmanstudios.com

805-962-5119



Quality-Integrity-Service
Since 1972



Lantern Masters designs and manufactures electric and gas lighting for residential and commercial applications.

Lantern Masters, Inc.

818-706-1990; Fax: 818-706-1988
www.lanternmasters.com

Westlake Village, CA 91362

Custom designer & manufacturer of lighting: interior chandeliers, pendants, ceiling flushes & sconces & exterior lanterns including wall, flush wall, pendant, post & pilaster; many architectural periods; historical reproductions.

Call for more information.

Period Lighting Fixtures, Inc.

413-664-7141; Fax: 413-664-0312
www.periodlighting.com

Clarksburg, MA 01247

Manufacturer of handmade 18th- & 19th-century lighting fixtures: chandeliers, sconces & lanterns; aged tin, oxidized copper, natural copper & pewter finishes; exterior & interior lanterns; over 200 historically accurate models: made in US; UL listed.



Manufacturer of Fine Interior, Exterior & Custom Lighting

LANTERN MASTERS, INC.

Unique Details, Fine Craftsmanship and Expert Design Service



31328 Via Colinas, Suite 103 | Westlake Village, CA 91362
818.706.1990 | lanternmasters.com





Blueprint for better

New York

Lincoln

Buffalo

Jackson

Springfield

Portland

Bisbee

cities.

Join us at A'18, where some of the most creative architects, designers, and firms will share how they're creating their own blueprint for better to make a difference in cities all over the world, like New York City and Bisbee, Arizona.

A'18 AIA Conference on Architecture 2018
June 21-23, New York City

Early bird ends April 25. Register now!
conferenceonarchitecture.com

Slate, Tile & Metal Roofing & Roof Specialties



Heather & Little is seen here craning a cupola into position on the Onondaga Court House in Syracuse, NY.

Heather & Little Limited

800-450-0659; Fax: 905-475-9764

www.heatherandlittle.com

Markham, ON, L3R 0H1 Canada

Fabricator & supplier of historical sheet-metal specialties & architectural sheet-metal components: finials, cornices, leader heads, cresting, metal shingles, pressed-metal wall cladding, cupolas, steeples, domes, reproductions; capitals & balustrades; Kalemien & lot-line metal windows & doors, statuary restoration.

Call for more information.



Kreilick Conservation worked on the Independence Hall weather vane, Philadelphia, PA.

Kreilick Conservation LLC.

215-572-6616; No Fax

www.kreilickconservation.com

Oreland, PA 19075

Provider of laboratory & field analysis of materials, condition assessments, emergency response & stabilization, treatment, documentation & maintenance of metallic & masonry architectural elements, monuments, sculpture & objects; founded in 1996.

Call for more information.



Ludowici supplied the clay-tile roofing for this historic building.

www.traditionalbuilding.com

Ludowici Roof Tile, Inc.

800-945-8453; Fax: 740-342-0025

www.ludowici.com

New Lexington, OH 43764

Manufacturer of architectural terra-cotta roof tile & floor tile: over 40 standard roof tile profiles including barrel, shingle, interlocking & shake & slate alternatives; customize shape, texture & color; historic renovation program; 75-year material warranty includes color.

MCA Clay Roof Tile

800-736-6221; Fax: 909-736-6052

www.mca-tile.com

Corona, CA 92879

Clay roofing tile manufactured in a variety of styles, including 1-piece 'S', Straight Barrel Mission, American Flat & Oriental; colors include natural, flashed & glazed finishes as well as custom colors.



NIKO duplicated the original copper design work to complete the restoration of the roof of the Carnegie Mansion in New York City.

NIKO Contracting Co., Inc.

412-687-1517; Fax: 412-687-7969

www.nikocontracting.com

Pittsburgh, PA 15213

Custom fabricator & contractor of sheet metal & roofing: slate, tile & other roofing; storefronts, cornices, cupolas, domes, steeples, snow guards & leader heads; copper, lead-coated copper, zinc & stainless steel; metal ceilings.

Call for more information.



In addition to its weatherproofing Acrymax roofing system, **Preservation Products** also offers primers, sealers, clear coats, accessories and reinforcing fabrics.

Preservation Products, Inc.

800-553-0523; Fax: 610-891-0834

www.preservationproducts.com

Media, PA 19063

Manufacturer & distributor of Acrymax restoration & preservation systems for historic metal roofs: durable weatherproof membrane can be used as complete roof system or for repair; Acrymax is an energy star partner.

Call for more information.



HEATHER + LITTLE LTD

Custom Sheet Metal Fabrications

At H&L we fabricate and reproduce custom ornamental sheet metal, from complex ceiling panels to decorative details; custom finials to intricate cornices. Our master metal smiths are experts in historic reproduction and custom design-build projects.

call 1-800-450-0659 email info@heatherandlittle.com www.heatherandlittle.com

Quality Craftsmanship Nationwide Since 1974

ROOFING
Slate • Tile • Metal
ARCHITECTURAL
SHEET METAL WORK
and ORNAMENTATION
CUSTOM FABRICATION
HISTORIC
RESTORATION
PRESSED METAL
CEILINGS



For information on custom fabrication and/or installation contact:
Phone (412) 687-1517
3434 Parkview Ave., Pittsburgh, PA 15213

Tile Roofs, Inc.

888-708-8453; Fax: 708-479-7865
www.tileroots.com
Frankfort, IL 60423

Importer & distributor of hand-finished European clay roof tile & fittings: custom manufacturing of clay roof tile & fittings to match existing; new & salvaged clay roof tile, concrete roof tiles & fittings; natural slate roofing for new roofs, repairs & additions.

Vande Hey Raleigh Mfg.

800-236-8453; Fax: 920-766-0776
www.vrmtile.com
Little Chute, WI 54140

Manufacturer of architectural concrete & slate roofing tile: 9 styles, 20 standard colors & unlimited color combinations; trim flashing, snow guards, copper gutters, cupolas & weathervanes; restoration & new construction.



Custom finials from **W.F. Norman** were incorporated into the restoration design of this historic building in Toronto.

W.F. Norman Corp.

800-641-4038; Fax: 417-667-2708
www.wfnorman.com
Nevada, MO 64772

Manufacturer of sheet-metal ornament: hundreds of stock designs; cornices, moldings, brackets, pressed-metal ceilings, roofing, siding, finials & more; zinc, copper & lead-coated copper; duplication from samples or drawings.
Call for more information.

#1

SPECIFIED BIRD NETTING

by architects and government agencies!

Nationwide network of Authorized Installers

Industry leading guarantees

Full line of bird control products

Effectively excludes all bird species

Same day shipping

CALL US AT 888.727.2117 FOR A FREE CONSULTATION

BIRD•B•GONE[®]

made in the USA | birdbgone.com

Bird Control

ABC Advanced Bird Control, div. of Nixalite

309-755-4708; Fax: 309-755-1865
www.abcbirdcontrol.com
E. Moline, IL 61244

Distributor of stainless-steel bird barriers & deterrents: Nixalite bird-barrier needle strips & Fliteline post & wire bird deterrent; K-Net Ultra strong knotted netting & PollyNet knotless netting.

Avian Enterprises, LLC

888-868-1982; Fax: 888-877-4355
aviancontrol.com
Juniper, FL 33477

Manufacturer & distributor of 'ReJeX-iT' bird repellents: humanely manage & control bird populations; goose repellent for turf & TP-40 for fogging warehouses, barns, etc.



Avian Flyaway's bird-control system was installed on California State Capitol in Sacramento, CA.

Avian Flyaway, Inc.

972-771-6679; Fax: 972-722-0165
www.avianflyawayinc.com
Rockwall, TX 75087

Manufacturer & installer of bird-control systems: stainless-steel electrically charged open-wire system; eliminates nesting & roosting birds; non-lethal, virtually invisible & easily maintained; conforms to U.S. Std. 69; netting.



Bird Barrier America's barely visible StealthNet, keeps birds from perching on the acanthus leaves of these Corinthian capitals.

Bird Barrier America

800-503-5444; Fax: 310-527-8005
www.birdbarrier.com
Carson, CA 90746

Supplier of comprehensive bird-control products: spikes, coils, netting, electrified tracks & tensioned wires; low-visibility solutions for sensitive areas; 30+ years experience in specialty roofing.



Bird-B-Gone's Jolt FlatTrack low-profile track system does not harm birds; it emits a mild shock as birds land on its surface.

Bird-B-Gone

800-392-6915; Fax: 949-472-3116
www.birdbgone.com
Irvine, CA 92618

Manufacturer of humane, effective bird control products: professional-grade bird spikes, bird netting, electric bird track, visual, chemical & audible systems; stainless steel & polycarbonate spikes; Bird Net 2000, Bird Jolt Flat Track & Bird Shock Track; extensive base of authorized installers who are available for consultation & installation.
Call for more information.



Stainless-steel needle strips from **Bird-X** create a 4 1/2-in. spread to prevent birds from roosting on roofs, ledges, gutters, window sills and statues.

Bird-X, Inc.

800-662-5021; Fax: 312-226-2480
www.bird-x.com
Chicago, IL 60612

Manufacturer of bird & pest control products: SPIKES Needle Strips, sticky gels, nets, ultrasonic & visual devices; for landmark status, museums, industrial, commercial & residential properties.

Coming in the June 2018 issue

THE 2018 COMMERCIAL PALLADIO WINNERS:

Two new colleges at Yale by Robert A.M. Stern; the Many Glacier Hotel by Anderson Hallas; Thorndale Farm offices by Voith & Mactavish and G.P. Schafer; Childs Building by Gerner Kronick & Valcarcel, and Longwood Gardens by Beyer Blinder Belle.

Exterior Ornament

Architectural Elements, Inc.

978-263-2482; Fax: 978-263-8504
www.architectural-elements.com
Boxborough, MA 01719

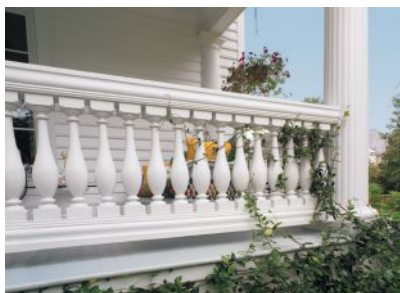
Supplier of interior & exterior molded ornament, millwork & cabinetry: cornice & crown, columns, decorative moldings & trim in both rigid & flexible, medallions, niches & more; polyurethane & polymer; stock & custom.

Flexible Moulding Concepts

877-655-6506; Fax: 877-895-5412
www.flexiblemouldingconcepts.com
Dallas, TX 75379

Supplier of flexible moulding: columns, capitals, friezes, cornices; architectural accents; window & door moulding & more.

NOTE: They want to spell it moulding, so we made an exception.



This balustrade system was manufactured by **Fypon**.

Fypon Ltd.

800-446-3060; Fax: 800-446-9373
www.fypon.com
Maumee, OH 43537

Supplier of thousands of decorative millwork & trim elements: variety of architectural styles; made of weather-proof materials impervious to decay, insect infestation & water damage; long lasting; low maintenance.



Haddonstone provided the custom cladding for this New York City building.

Haddonstone (USA), Ltd.

719-948-4554; Fax: 719-948-4285
www.haddonstone.com
Pueblo, CO 81001

Manufacturer of classical & contemporary cast limestone: columns, balustrades, benches, planters, pavers, fountains, gazebos, interior ornament, mantels, statuary & more; 500+ designs; custom designs.

Call for more information.

Pro Wood Market

800-915-5110; Fax: 888-540-9610
www.prowoodmarket.com
Lilburn, GA 30047

Provider of wood exterior architectural products: brackets, corbels, braces, rafter tails, gable brackets, shutters; made of Western Red Cedar; delivered in smooth or rough sawn finish; all made in Lilburn, GA; Pro Wood Market is the sales division of Pro Wood Construction.

Royal Corinthian

888-265-8661; Fax: 888-344-2937
www.royalcorinthian.com
West Chicago, IL 60185

Manufacturer of polymer elements: columns, balusters, rails & simulated-slate roofing; synthetic polymer/stone materials.



The medallions that punctuate this colonnade in Laguna Beach, CA, were manufactured by **Warner Bros. Studio**.

Warner Bros. Studio Facilities

818-954-2032; Fax: 818-954-7829
www.wbsf.com
Burbank, CA 91522

Custom fabricator of architectural ornament & murals: balustrades, columns, capitals & moldings in fiberglass & plaster; fine-art reproduction, restoration & trompe l'oeil; interior & exterior decoration.

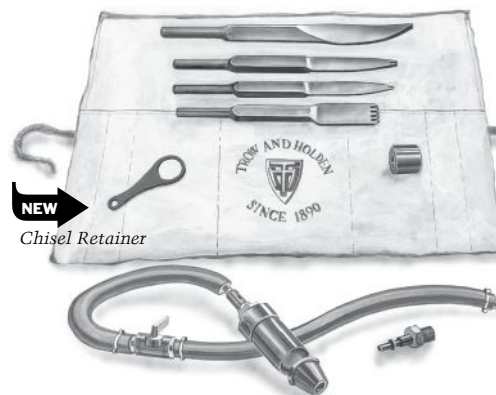
Wassmer Studios

913-563-4949; Fax: 913-563-4944
www.wassmerstudios.com
Kansas City, MO 64111

Manufacturer of interior & exterior ornament: cast-limestone columns, balustrades, cornices & range hoods; plaster brackets, ceiling domes, medallions, moldings & mantels.

TROW & HOLDEN MASONRY RESTORATION SET

OUR MORTAR REMOVAL SET INCLUDES:



- Trow & Holden "Type B" short stroke air hammer with 1" piston*
- 10' air hose assembly with all hardware installed, including **Staubli push-button Quick-Connect**
- Mortar removal chisels (4) — 1/8" and 1/4" carbide cape chisels, 4-tooth carbide ripper, 1/4" steel swept cape chisel (chisels also available in thicknesses starting at 1/32")
- Our Chisel Retainer
- Tool pouch & literature on tool use

Everything you need to get started,* for a special price: **\$539**

*Use with 5 HP compressor

MADE TO LAST SINCE 1890 IN BARRE, VERMONT USA



TROW & HOLDEN COMPANY
FINE STONEMASONRY TOOLS

45 South Main Street • Barre, VT 05641 • Toll-Free 1-800-451-4349 • 802-476-7221
www.trowandholden.com • Please call or write for a free catalog.

Masonry Restoration, Cleaning & Waterproofing



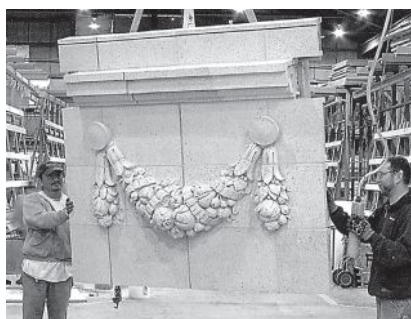
Abatron manufactures structural adhesives and other masonry- and stone-repair products.

Abatron, Inc.

800-445-1754; Fax: 262-653-2019
www.abatron.com
Kenosha, WI 53144

Manufacturer of products for restoration & repair: wood consolidation & repair, window & door restoration, concrete patching & resurfacing, metal restoration, moldmaking & casting, structural adhesives, protective coatings, strippers & related products.

Call for more information.



The original terra-cotta cladding on the 1916 Utah State Capitol was removed and restored or replicated by **KEPCO+**.

KEPCO+

801-975-0909; Fax: 801-975-9911
www.kepcoplus.com
Salt Lake City, UT 84104

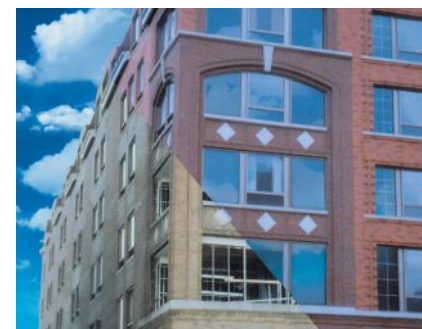
Custom fabricator & installer of architectural cladding systems: columns, capitals, balustrades, commercial building façades & storefronts; natural stone, tile & terra cotta; commercial, institutional & religious buildings.

Kreilick Conservation LLC.

215-572-6616
www.kreilickconservation.com
Oreland, PA 19075

Provider of laboratory & field analysis: materials, condition assessments, emergency response & stabilization, treatment, documentation & maintenance of metallic & masonry architectural elements, monuments, sculpture & objects; founded in 1996.

Call for more information.



Stain from **Nawkaw** permeated the brick on this building to revitalize the color.

Nawkaw Corp.

706-355-3217; Fax: 706-355-9199
www.nawkaw.com
Bogart, GA 30622

Manufacturer of masonry stains designed to permeate brick, block, mortar, pre-cast, concrete, stucco & manufactured stone: for decorative re-coloring, renovation, restoration & corrective-coloring projects; 25-year warranty.



Restoration & Maintenance Products

Solutions for your toughest projects

- Wood
- Concrete
- Metal
- Plaster
- Stone
- Porcelain



Free Catalog
1-800-445-1754 • www.abatron.com

Stonesculpt

650-575-9683; Fax: 650-322-5002
 www.customstonecarving.com
 East Palo Alto, CA 94303

Custom fabricator of hand carvings in natural stone: stone carving, masonry restoration, custom stone work & sculpture.



The Trow & Holden Co. Pneumatic Mortar Removal Set for repointing and masonry restoration is designed to reduce dust, providing increased control and minimizing damage to existing stone or brick.

Trow & Holden

800-451-4349; Fax: 802-476-7025
 www.trowandholden.com
 Barre, VT 05641

Manufacturer of stone-carving tools: air & hand hammers; steel & carbide chisels for soft & hard stone; pneumatic mortar-removal kits for fine repointing work; stone-masonry & -splitting tools.

Call for more information.



Weathercap's soft lead strip embedded in caulk forms a cap or seal that protects any masonry joint.

Weathercap, Inc.

985-649-4000; Fax: 985-847-1237
 www.weathercap.net
 Slidell, LA 70459

Manufacturer of soft-lead strips: set & bedded in caulking compound/sealant; forms a cap to create a permanent elastic seal for any masonry joint.

Call for more information.

Weathercap®
 Joint Protective System
 A permanent elastic seal for any masonry joint

WEATHERCAP
 U.S. Patent 6991400

Weathercap, Inc.
 www.weathercap.net
 985-649-4000 Fax: 985-847-1237

Type A Cap
 Type B The 90° Cove Cap

When contacting companies you've seen in the issue, please tell them you saw them in *Traditional Building*.

Natural Building Stone



Cleveland Quarries offers a variety of stone that can be used as pavers.

Cleveland Quarries

440-963-4008 ; Fax: 440-963-4011
www.clevelandquarries.com
Vermilion, OH 44089

Stone quarry: processor of Berea Sandstone into slab, split or diamond-finished products; sandstone is squared, shaped, finished & carved to detailed specs by skilled craftsmen.



Haddonstone's ashlar blocks were used to build this sturdy wall.

Haddonstone (USA), Ltd.

719-948-4554; Fax: 719-948-4285
www.haddonstone.com

Pueblo, CO 81001

Manufacturer of classical & contemporary cast limestone: columns, balustrades, benches, planters, pavers, fountains, gazebos, interior ornament, mantels, statuary & more; 500+ designs; custom designs.

Call for more information.



Phenix Marble company provided new stair treads for the prominent South Steps of the Missouri State Capitol building; it also provided pavers for exterior terraces and portico as part of the Capitol's major restoration project.

Phenix Marble

417-840-2281
www.phenixmarble.com
Springfield, MO 65806

Quarrier & fabricator of historic Phenix marble & building stone: Napoleon Gray marble; finished marble slabs; full depth & thin split-face veneer; dimensional stone.



Porphyry stone products are available in a range of colors, sizes and thicknesses from Porphyry USA.

Porphyry USA, Inc.

301-656-7735; Fax: 301-656-7740
www.porphyryusa.com
Bethesda, MD 20816

Supplier of pavers & porphyry stone, the volcanic rock used by the Romans as their symbol of royalty & prominence: for facades, streets, sidewalks, courtyards, walkways, driveways & pool decks; flexible design options.



Vermont Verde's serpentine stone can be used in a variety of applications.

Vermont Verde Antique LLC

802-767-4421; Fax: 802-767-4423
www.vtverde.com
Pittsford, VT 05763

Quarrier of green serpentine stone for commercial & residential applications: available in slabs, tiles & blocks; large 40,000 sq. ft. main facility available to tour; LEED certified for commercial & residential use.

Call for more information.

Nature made it

Beautiful

We make it
AVAILABLE

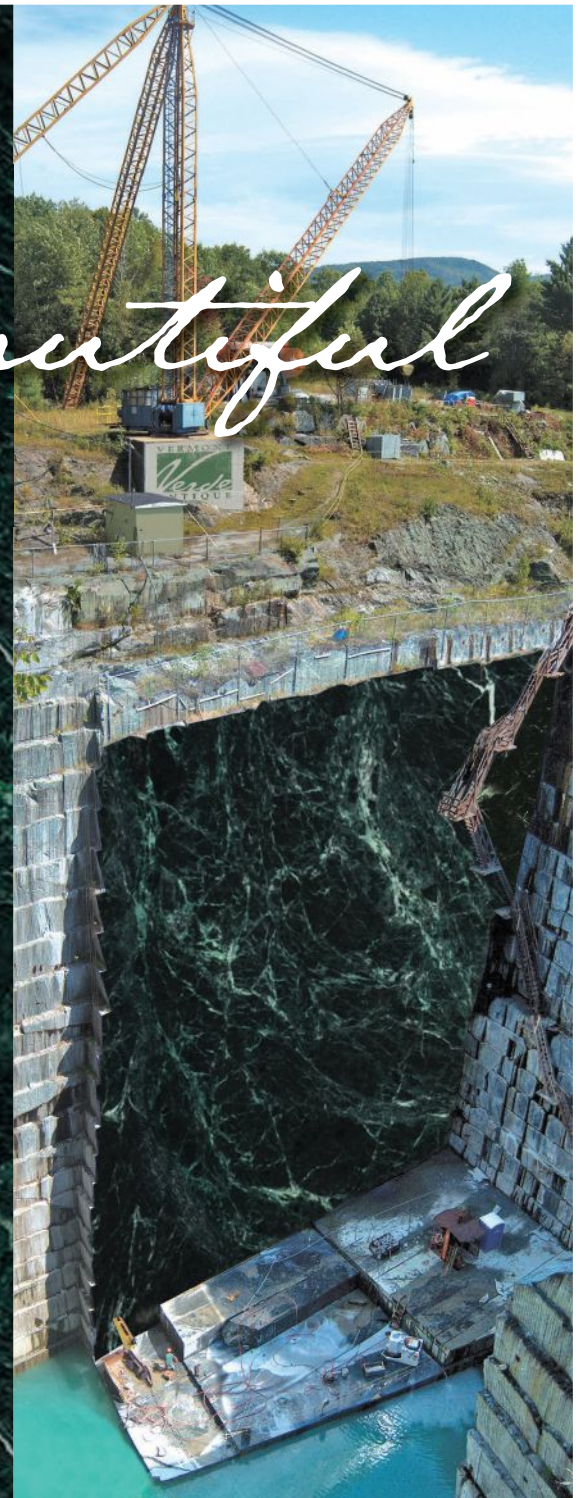
QUARRIED
SINCE THE 1850s

VERMONT

Verde
ANTIQUÉ

WORLD'S FINEST
SERPENTINE

(802) 767-4421
vtverde.com



Coming in the
June 2018 issue of
Traditional Building:

THE 2018 COMMERCIAL PALLADIO WINNERS:
Two new colleges at Yale by Robert A.M. Stern;
the Many Glacier Hotel by Anderson Hallas; Thorndale
Farm offices by Voith & Mactavish and G.P. Schafer;
Childs Building by Gerner Kronick & Valcarcel,
and Longwood Gardens by Beyer Blinder Belle.

Dendrochronology: William Flynt Brings Science to New England's Historic Buildings

By Judy L. Hayward

It was 2001 and Bill Flynt was on the case to determine the true age of the Sheldon house, one of the buildings in Historic Deerfield's collection. There was a date marker of 1743, or possibly even earlier; a new ell had been added in 1802; he had bills of sale for glass and lime dating from the 1750s, and the structure had been restored in 1957. The front of the building had seemingly been built against an earlier building, long gone. A conclusive date eluded Flynt.

The quest to present accurate information about historic building construction led Historic Deerfield's architectural conservator, Bill Flynt, to consider dendrochronology to help him resolve the disparities between the physical and documentary evidence.

He had heard that colleagues at the Society for the Preservation of New England Antiquities, now Historic New England (HNE), were conducting a pilot project working with oak to see if dendrochronology could be used to assist in dating buildings in eastern Massachusetts. HNE put him in touch with Columbia University's Lamont-Doherty Tree Ring Laboratory in Palisades, NY. (<http://www.ldeo.columbia.edu/tree-ring-laboratory/about-us>).

Coincidentally, LDEO (Lamont-Doherty Earth Observatory, Columbia University's laboratory in Palisades, NY) scientist Paul Krusic was going to be visiting Deerfield to see his sister, a teacher at Deerfield Academy, shortly after Bill made his initial contact. Krusic made the trip, reviewed the situation, and proposed a pilot project to see if pitch pine, the species of interest, could be used to date Deerfield's historic structures. Several houses were selected for study, core samples were extracted, analyzed, and the results compared to a master chronology of tree rings for the same species from the New Paltz area in New York.

Paul found certain Deerfield samples aligned convincingly with the master, thus allowing the creation of the first dated master for pitch pine in New England. From this initial study, and ensuing work by Bill, the timbers from the main frame of the Sheldon house were determined to have been felled in the winter of 1753/4. Paul offered to train Bill and help him establish a laboratory at Historic Deerfield.

Bill Flynt had found his answer and a new passion. Since then, he has conducted dendrochronology studies on close to 250 structures throughout New England and New York State. His work has broken new ground on our understanding of building craft practice in the northeast.

Dendrochronology is the science of studying tree ring growth. Bill's focus on historic construction studies is more aptly described as dendroarchaeology. Most of the research at university tree-ring laboratories today centers on understanding forest dynamics, forest fire history, climate change, and the impact of historical events on the growth and health of trees and people. Nevertheless, it is used to study diverse subjects such as excavated archaeological timbers from structures and ships, works of art painted on or sculpted of wood, and the species of trees that make up historic wooden architecture around the world. The knowledge that can be revealed includes dates that trees were felled, the trade networks of wood from harvest to use,



ABOVE: Bill Flynt takes a core sample from an 18th-century chimney girt. Photo: Ed Hood



LEFT: A comparison of oak (lower) and pitch pine (upper two) core samples. Photo: William Flynt, Historic Deerfield

and information of value to architectural historians.

Understanding the climate's impact on trees can tell us what was happening to settlements at any given time. Bill mentioned the Jamestown Colony (1607) as an example. Analysis of Virginia trees by Dave Stahle and his colleagues at the University of Arkansas tree-ring laboratory revealed that there was an extreme drought during the early years of the settlement that was a significant factor in the colony's demise.

Wood samples are taken from numerous locations within any given building, and the growth rings of the samples are microscopically measured and compared to master chronologies of respective species both from nearby sites and the region. The period of study where dendrochronology can be most helpful in understanding buildings in the United States ranges from the 17th to the mid-19th century. The primary tree species used in construction for which there are dated masters in the New England and eastern New York region include oak, pitch pine, hemlock, spruce, and to a somewhat lesser extent, white pine and chestnut.

One revealing project involved sampling a group of buildings on Martha's Vineyard that were actually built in the second quarter of the 18th century, not the 17th century as previously thought. He surmised that the builders just continued to build as they had been taught without feeling compelled to move from First Period (1620-1730) practices into the early Georgian styles of the 1740s.

By sampling different areas of a building, his work has documented that occasionally upper stories of houses remained unfinished for several generations. This has led historians to concur that sometimes it took longer to finish homes than previously thought. He recently evaluated a reportedly early house in East Hartford, CT, that had been moved several times; the timbers were felled during the winter of 1697/8, proving the evidence aligned with the stories surrounding the house. More often than not, structures with purported 17th-century dates turn out to be 18th century when the dendrochronology study is complete.

Architectural historians sift through physical, documentary and anecdotal evidence to unravel the mysteries of extant buildings like detectives following a forensic trail. The use of scientific methods like dendrochronology reinforces the findings with verifiable data. Flynt is entering his 40th year at Historic Deerfield and is widely respected for his expertise in historic buildings. He can be reached at wflynt@historic-deerfield.org for those looking to hire him for an analysis of the microscopic ancestry of historic timbers and wooden architectural elements. Check out www.historic-deerfield.org to plan a visit to the museum.

Reviewed by Emily O'Brien

What Makes a City Tick?

Cities Alive: Jane Jacobs, Christopher Alexander, and the Roots of the New Urban Renaissance

By Michael W. Mehaffy

Sustasis Press, Sustasis Foundation, Portland, OR

Paperback; various color photos & illustrations;

290 pages; \$19.95

ISBN: 978-0-9893469-9-3

Cities are undergoing a renaissance; what was once an American lean toward suburban sprawl, the U.S. is now experiencing a rebirth of many of its cities. Michael Mehaffy's new book, *Cities Alive*, explores why this rejuvenation is happening—"because we've begun to understand how they really work—and what they will need to work better in the years ahead."

The premise of the book discusses two main heavyweights who have helped shape this resurgence—American-Canadian urbanist Jane Jacobs and the English-American architect Christopher Alexander, both whose significant insights have formed multiple generations of professionals, scholars and activists alike. Mehaffy takes us on a journey of where Jacobs' and Alexander's lines of thought run parallel and intersect.

When cities are spoken of throughout the book, Mehaffy is not only referring to the vast compressed cores of major metropolises but also to smaller cities and towns. He tackles tough topics like "Why cities are the problem, but cities are the answer too," systems reform, diverse opportunities, connectivity, environmental sustainability, pattern languages, threats and more. Points are often illuminated by references to Jacobs' and Alexander's published pieces and sometimes illustrated by photos, charts or diagrams to further drive home key elements.

The book is divided into five main sections, the first two covering Jane Jacobs and Christopher Alexander, respectively. Sections three and four delve in to philosophical roots, mereology and the structuralist renaissance, as well as opportunities and threats, including the New Urban Agenda, "artistic sprawl" and more. The book closes with the fifth section discussing fundamental lessons and optimistic examples.

Overall, *Cities Alive* features a comprehensive view of city structure, what works and what doesn't, and most importantly, how we can make it better. At the back of the book, you'll find references and suggestions for further reading, plus a detailed index. What's most remarkable is that in the latter half, Mehaffy pulls from his curated pot of somewhat rather abstract ideas, garnered from Jacobs and Alexander, and transforms them into solutions that can be implemented in very tangible, realistic ways.

The problems are not just with the city structures but also of issues on a much deeper level. Mehaffy states, "In all of our current challenges, cities—again, in the broad sense of urban settlements—loom very large. It is within

the structures of these urban settlements that we consume, interact, create, and ultimately generate the impacts that now prompt such growing concern. But it is also within them that we develop as human beings and as a species—that we create, innovate, adapt and problem-solve. It is in these settlements that we create a civic framework by which we may work together on shared opportunities and challenges."

He also adamantly argues the reawakening is still in its adolescence form with more work needing to be "done to achieve its promise—especially in an age of rapid, often sprawling urbanization."

He warns, "I will argue that this renaissance is, in fact, a transformation in the way we think of beauty, of quality, and of life. It is a determined mastery of the technological abstractions that are, on the one hand, our powerful agents,

but if we are not careful—and we have not been nearly careful enough—our destructive masters."

An alluring and thought-provoking read for students, government officials, architecture professionals and more, *Cities Alive* will have you nodding your head as you read along, offering an intricate and intelligible understanding of city structure as it examines essential philosophical ideas about cities and what they offer their inhabitants. Hint: It's so much more than you can rattle off the top of your head.

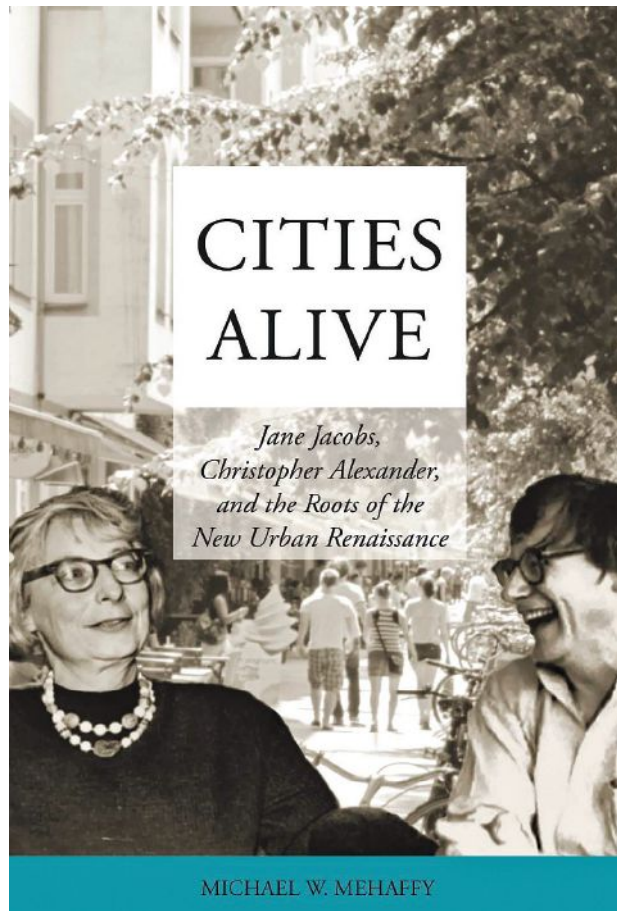
An urbanist and design theorist, author Michael W. Mehaffy, Ph.D., is the executive director of Portland, Oregon-based Sustasis Foundation, editor of Sustasis Press and currently has appointments in teaching and/or research in seven graduate universities in six countries and three disciplines (architecture, urban planning and philosophy).

A distinguished scholar on both Jane Jacobs and Christopher Alexander, Mehaffy has also acted as a consultant to UN-Habitat on the development of the outcome document of Habitat III, the New Urban Agenda, a historic United Nations agreement emphasizing the pivotal role of cities and towns in meeting the challenges of the future, which

has been adopted by consensus by all 193 member states of the United Nations. As discussed in the book, Jacobs and Alexander were monumental in formulating conceptual insights behind the New Urban Agenda and whose teachings continue to offer guidance as we forge ahead.

Mehaffy says, "Both authors leave us today free to test their ideas, to falsify, modify, combine with others—and then, if we find them useful, proceed to apply the ideas constructively, or alternatively, revise them as needed. Both authors have frequently urged us to follow an evidence-based approach, and continue the journey of learning and growth." He points out that their teachings have "offered us a useful roadmap" and now it's up to us to decide which way to go.

Emily O'Brien is a freelance writer living in Sydney, Australia, and also the production editor for Traditional Building and Period Homes magazines.



Stop Skyscrapers in Paris

By Mary Campbell Gallagher

The world loves Paris because it is beautiful. Since the 17th century, first royal decrees and then statutes have governed its appearance. Paris has had height limits for hundreds of years, and they help maintain the city's unique low skyline. But today political pressure is gutting the law. The beauty of Paris is under threat. Residents feel powerless. And the world does not know.

The zoning law of Paris, the Plan Local d'Urbanisme (PLU), aims "to preserve the urban forms and the patrimony coming from the history of Paris, all the while permitting contemporary architectural expression." It specifies building heights and materials for facades, among much else. Permission may be refused if a building may "undermine the character" of its surroundings.

However, Paris City Hall, developers and star architects say that Paris needs skyscrapers to be *modern*, by which they seem to mean, more like Dubai. They accuse opponents of promoting a museum-city, a *ville-musée*. But opponents of skyscrapers, including French preservationist association SOS Paris and, more recently, the International Coalition for the Preservation of Paris, ICPP, which I founded, strongly disagree.

It is not too late to stop the skyscrapers. To be sure, one skyscraper project, Renzo Piano's courthouse, is complete, and ground has been broken for another, the so-called Duo. But dozens more are planned. To save Paris, we cannot rest.

Paris has not learned from its experience with skyscrapers. Height limits in Paris were relaxed in the 1960s and 70s, when modernists ran the planning department. One result was the universally-hated 210 meters (689-ft.) Tour Montparnasse, which disfigured the city in 1973. Parisians protested, and in 1977, the government re-introduced height regulations: 31 meters (102 ft.) in the center, 37 meters (121 ft.) on the periphery.

In 2008, ignoring the lesson of the Tour Montparnasse, and explicitly disregarding polls showing Parisians opposing skyscrapers, the City Council raised the height limits and approved construction of six skyscraper projects at the city's gates. The then-mayor said elected officials must not be guided by polls, but by the general interest. He cited young families needing apartments, and he invoked the competition among world cities.

Today's feverish, high-pressure, campaign for skyscrapers, however, looks more like power politics than like thoughtful policy. The media promote the campaign. The City of Paris gives architects exhibits in its 15 public museums, with attendant laudatory reviews, interviews, and conferences.

But excellent, indeed, conclusive, counter-arguments exist. Among them, that while France prides itself on aesthetic excellence, these skyscrapers are ugly. Following the French government's order to vacate their recently-renovated historic buildings on the Ile de la Cité, the courts will move into the first of the new skyscrapers, Renzo Piano's courthouse, in April. This banal 40-story-tall pile of glass boxes is a sock in the eye for all Parisians. Visible everywhere, it powerfully suggests the damage the entire range of the proposed skyscrapers will do when they encircle Paris.

Further, Paris does not need skyscrapers. Paris has a glut of empty office space and a shortage of housing, but the new buildings are chiefly for offices, and none is for housing. Today, according to 2017 statistics from A.T. Kearney, Paris is an alpha city of world commerce, with New York and London, so

skyscrapers won't boost its ranking. Experts say these skyscrapers can't meet recommended local sustainability standards. And there is more.

In their feverish haste to build skyscrapers, the City of Paris and the national government have signed wasteful contracts. The courthouse contract, a public-private partnership between the national government and the developer Bouygues, requires the French government to pay rent of nearly three billion euros over 27 years, at a time when the Ministry of Justice is painfully short-funded. The lawyers opposing the move from the center of Paris showed the then-Minister of Justice, Christiane Taubira, that the contract was wasteful, and she, in turn, went to the Prime Minister, but the government insisted, regardless.

Most in contention today is the proposed 42-story, 180 meters (591 ft.) Tour Triangle of Herzog & de Meuron, a project of the developer Viparis. This ugly wedge of glass and steel has incited close re-votes in the City Council. From points on the Right Bank, it is smack in the line of sight of the 324

meters (1,063 ft.) Eiffel Tower. Arguing that this purportedly private development is actually a public project of Paris City Hall, and alleging favoritism in the award, disregard of legal procedures, and waste, SOS Paris has taken the matter to court, lodging civil and criminal complaints, still pending.

The courts, however, can also gut the PLU.

In 2001, the politically-powerful French conglomerate LVMH, the world's largest luxury-goods company, bought the Samaritaine department store in the historic center of Paris. LVMH engaged the Japanese Pritzker-winning architecture firm SANAA. The art nouveau Samaritaine facade on the Seine is a nationally protected monument. The structures behind that building on the historic Rue de Rivoli, dating from the 17th through the 19th centuries, were protected only by the PLU. There, SANAA proposed a block-long undulating glass façade, opaque, seven stories tall, without doors or windows.

Challenging the demolition and building permits, arguing that the design violated the PLU, SOS Paris won in the Administrative Tribunal and then again on appeal. Political pressure was intense. The old buildings were demolished. The City and LVMH appealed to the highest administrative court in France, the Council of State (Conseil d'Etat). In 2015, it held

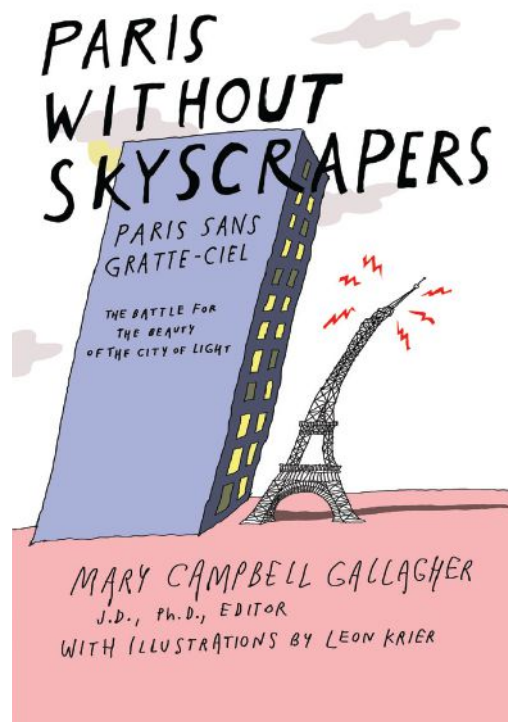
for LVMH and City Hall. The deciding factor? The design was "contemporary." That reasoning is contrary to the plain language of the PLU, but the judgment is final.

One must wonder what happened.

Paris is the world's city. If the world knows what is going on, together we can stop the skyscrapers. That is the aim of the reports, book, and conferences that ICPP sponsors and of the lawsuits that SOS Paris brings. All for the sake of beautiful Paris. Please support us. Go to SaveParis.org for information.

See www.traditionalbuilding.com for related images.

Mary Campbell Gallagher, J.D., Ph.D., is the founder and president of the International Coalition for the Preservation of Paris, ICPP. She is U.S. liaison for SOS Paris. She is editor of the forthcoming book of essays, *Paris Without Skyscrapers: The Battle to Save the Beauty of the City of Light*, coming from ICPP, in cooperation with SOS Paris. Gallagher is also president of New York-based legal training company BarWrite and BarWrite Press. She can be reached at mcg@marycampbellgallagher.com.

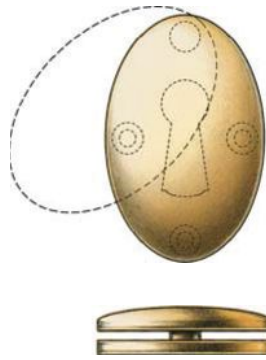


The book, *Paris Without Skyscrapers: The Battle to Save the Beauty of the City of Light*, will be available this fall.

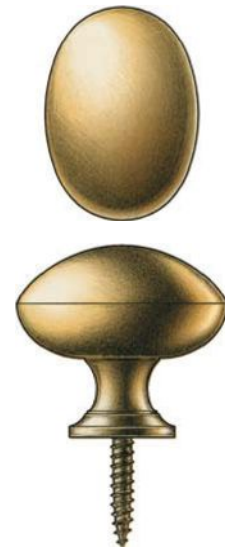
E. R. BUTLER & CO.



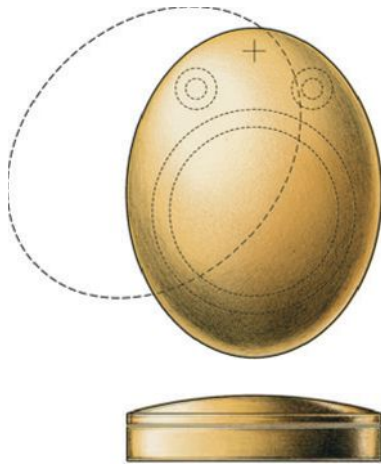
Thumb Turn & Rose



*Emergency Trim Ring
with Swinging Cover*



Shutter Knob



*Cylinder Ring
with Swinging Cover*



*Cylindrical Floor Stop
with Trim Ring*

Ö

E. R. BUTLER & CO.

*“OV” Design Series
W.C. Vaughan Co. Collection*

Door Knobs Available in 2 3/4, 2 1/2, 2 1/4, 2, and 1 3/4 inch Sizes (Nominal) (2 3/4 in. Shown).

Available in 3 inch Diameters for Use as Center Knobs.

Also Available in 1 1/2, 1 1/4, 1, 3/4, and 1/2 inch Sizes (Nominal) for Cabinets and Fine Furniture.

Solid Turned Brass Knob and Rose.

Standard, Custom Plated and Patinated Finishes Available.

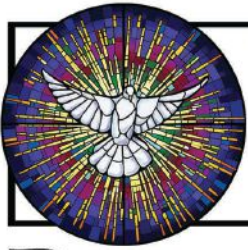
WWW.ERBUTLER.COM

CATALOGUES AVAILABLE TO THE TRADE · SHOWROOMS BY APPOINTMENT ONLY

3/4 Scale

FINE ARCHITECTURAL, BUILDERS' AND CABINETMAKERS' HARDWARE

© E. R. BUTLER & CO. ALL RIGHTS RESERVED. TECHNICAL DRAWING: JOHN SYKES FETTERMAN RENDERING: MARGITTA ZACHERT TYPOGRAPHY: JOHN PACKER



BOVARD STUDIO STAINED GLASS

Restoration, New Glass and Framing Systems



*Detail

Bovard Studio's Woodshop created this new rose window frame with plantation grown mahogany for the First Presbyterian Church in Fort Smith, Arkansas. Note: We also fabricate and install ornate aluminum frames.



Before Restoration



After Restoration



Before and after photos of the F4 tornado damage to the First United Methodist Church of Cullman, Alabama restored by Bovard Studio Inc

Louis Tiffany's "The Good Shepherd", exhibited at the 1893 World Columbian Exhibition. Tiffany's stained glass masterpiece was restored by Bovard Studio Inc. for St. Luke's United Methodist Church in Dubuque, Iowa.

Bovard Studio Inc. repairs and replicates storm damaged stained glass windows in all styles and techniques. Bovard Studio Inc. has US Patent #7607267 framing systems designed for the conservation of stained glass windows with exterior glazing available in both wood and metal. Bovard Studio Inc. has framing and glazing systems approved for maximum hurricane and impact codes.