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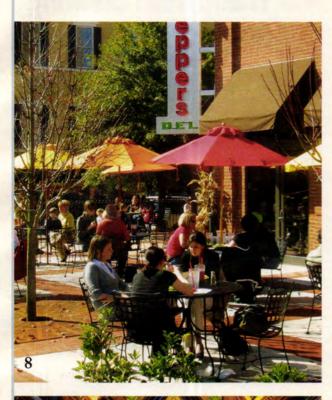
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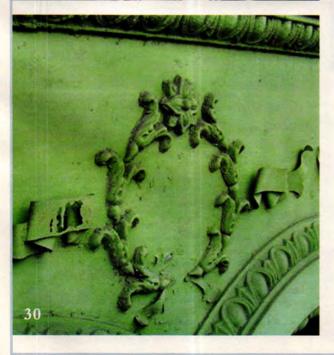
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#### **Traditional Building**



# **Traditional Building**

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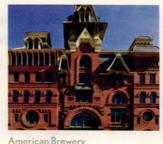


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9:00 - 10:00 am Registration, Continental Breakfast, Meet & Greet Sponsors

10:00 - 11:05 am The Presence of the Past in the Practice of Architecture Today 1 AIA HSW LU Speaker: James Collins

11:05 - 11:25 am Break

11:25 am - 12:30 pm New Tools for Old Designs: Researching Historic Architecture Today 1 AIA HSW LU Speaker: Heather Fearnbach

12:30 - 1:25 pm Lunch

## Friday, April 27, 2012

9:00 - 10:00 am Registration, Continental Breakfast, and Meet and Greet Sponsors

10:00 - 11:05 am Historic Clay Roof Tile - Why and How to Use it Successfully 1 AIA HSW-SD LU Speaker: Tab Colbert

#### 11:05 - 11:25 am Break

11:25 - 12:30 pm Why Do Paints Fail: Identifying Common Paint Problems When Repainting Older Buildings 1 AIA HSW LU Speaker: Reid Thomas 1:25 - 3:00 pm Mitigating Storm Damage with the Right Details: Windows and Impact Zones 1.5 AIA HSW LUS Speakers: David Morris and Greg Shue

3:00 - 3:25 pm Break

**3:25 - 5:00 pm** Rescuing Endangered Architecture: Why North Carolina Leads the Nation *1.5 AIA HSW LUS* **Speakers:** Ted Alexander and others

5:00 - 5:10 pm Break

5:10 - 6:15 pm Traditional Building Film Fest

6:15 - 7:15 pm Reception

12:30 - 1:25 pm Lunch

1:25 - 3:00 pm Green Restorations: Sustainable Building in Historic Homes 1.5 AIA HSW/SD LUs Speaker: Aaron Lubeck

3:00 - 3:10 pm Break

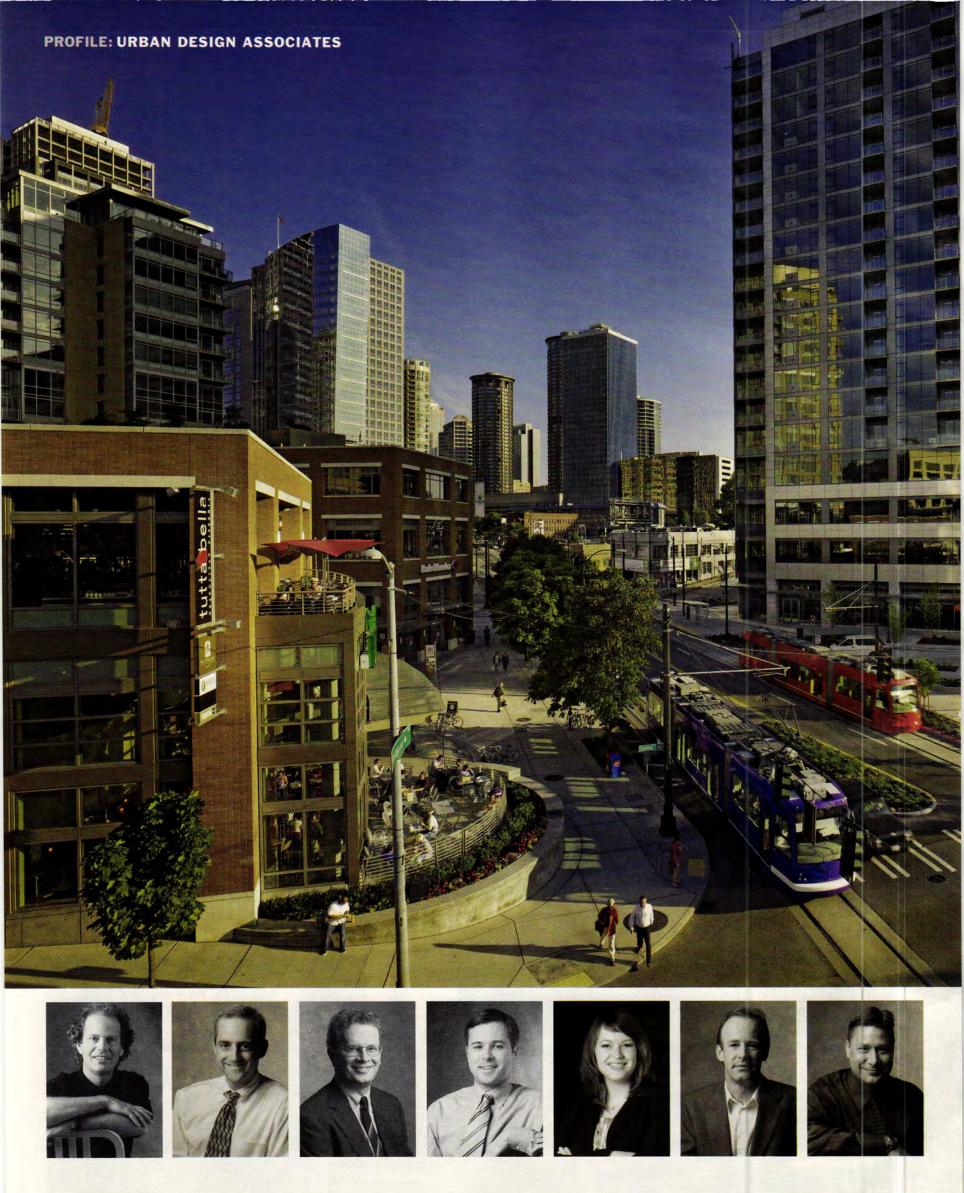
3:10 - 4:40 pm Designing Period Appropriate Interior Millwork 1.5 AIA HSW LUs Speaker: Benjamin Curran

4:40 - 4:45 pm Wrap-up and Evaluations

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Join us on Twitter (@TradBuildingShow) for updates on the show and information about the market. Join us on Facebook, and connect with the world of restoration and renovation.







Multi-award-winning firm Urban Design Associates (UDA) was founded by David Lewis and Raymond L. Gindroz in 1964 with the goal of uniting citizens and private enterprise to create sustainable cities, neighborhoods and architecture. Among its many recent projects is a 2005 master plan for almost 50 acres of land in Seattle's South Lake Union neighborhood, encompassing 9,000,000 sq.ft. of new and rehabilitated commercial and residential development. Photo: Benjamin Benscheider Photography

UDA is led today by (left to right): principals Rob Robinson, AIA, Barry Long, AIA, Paul Ostergaard, AIA, Eric Osth, AIA, LEED AP, Maggie Connor, LEED AP, Don Kaliszewski, AIA, LEED AP and chief illustrator David CSont, ASAI. All photos: courtesy of Urban Design Associates unless otherwise noted.

# Building Consensus

Urban Design Associates harnesses the power of both the public and private sectors for a balanced approach to planning and architecture. **By Lynne Lavelle** 

> hen Urban Design Associates (UDA) was founded in Pittsburgh, PA, in 1964, finding common ground between diverse groups of citizens seemed all but impossible. At the time, the Civil Rights Movement had made the nation's societal divisions painfully clear

and many cities were the backdrop for violence and unrest. Carnegie Mellon professor David Lewis and Raymond L. Gindroz, who was then in graduate school, saw something else however: that community participation in urban planning could strengthen democracy, and provide a platform for all people, regardless of socio-economic status. Lewis and Gindroz chose the name Urban Design Associates to describe this collaborative approach, which would unite clients and constituents to create sustainable cities, neighborhoods and architecture.

UDA demonstrated this ethos with its first project, funded by the Ford Foundation, which made recommendations to Pittsburgh Public Schools on how to move forward with new development. Since then, UDA has expanded, designing master plans, pattern books, buildings and urban environments throughout the United States, as well as in Central America, Europe and Asia. Among the firm's most publicized projects is the groundbreaking New Urbanist development Celebration, FL, as well as *A Pattern Book for Neighborly Houses*, published in conjunction with Habitat for Humanity and the ICAA in 2007, and *Louisiana Speaks: Pattern Book*, published in 2007 in response to hurricanes Katrina and Rita.

UDA has received over 100 awards, including the Presidential Award for the transformation of a public housing project, two Progressive Architecture Awards for neighborhoods, four National AIA Honor Awards, three ULI Awards for Excellence, six Charter Awards for the Congress for the New Urbanism (CNU), and three national HUD Awards for downtown and neighborhood projects. UDA is also a two-time Palladio winner (see *Traditional Building*, June 2006 and June 2009). Ray Gindroz was the recipient of the third annual Clem Labine Award (see *Traditional Building*, August 2011) and David Lewis was the recipient of the Athena Award by the CNU for his outstanding contributions to the field of Urban Design.

From its headquarters in Pittsburgh, UDA is led today by principals Rob Robinson, AIA, Barry Long, AIA, Paul Ostergaard, AIA, Eric Osth, AIA, LEED AP, Maggie Connor, LEED AP, Don Kaliszewski, AIA, LEED AP, Jim Morgan, AIA, LEED AP, Gail Armstrong, SDA, and chief illustrator David CSont, ASAI. As Osth explains, the firm remains faithful to its founding principles by empowering citizens through charrettes, pattern books and forums. "UDA was founded on teamwork. We work together with our clients and constituents in the design of cities," he says. "Our cities are highly complex environments and participation and analysis are critical to building support for innovative design solutions."

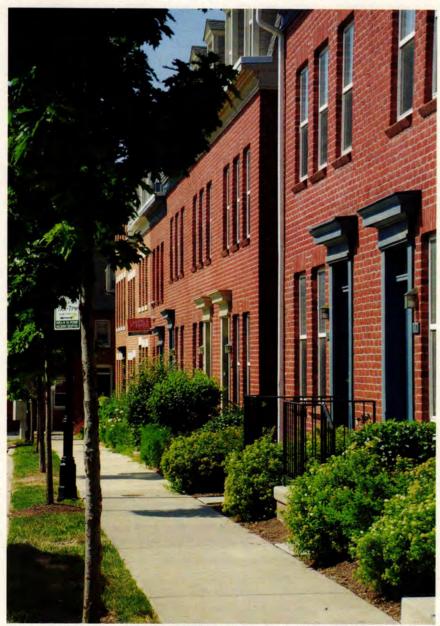
While UDA's process of bringing people together around common goals and objectives remains unchanged, attitudes towards urban development have shifted dramatically, and for the better, within its lifetime. "Through the years we have seen that 'urban' is no longer associated with a negative stigma," says Osth. "Today, it has become widely associated with the positive attributes of urban life, such as diversity, prosperity, vitality and creativity."



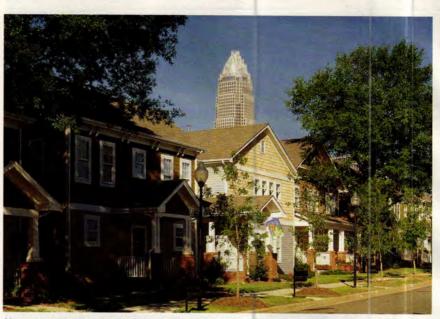
UDA redesigned one of four quadrants in uptown Charlotte, NC. The First Ward master plan envisioned \$1.6 billion of investment in light rail transit, and new recreation, education and residential facilities.



Changing attitudes may owe something to changing definitions. In the decades since the mid-sixties, UDA has also witnessed "urban life" extend to a broad variety of contexts, from rural to residential, as well as the archetypal downtown. Be it an individual block, neighborhood, small town or city, the firm strengthens the link between building and social fabric through mixed-income, private and publicly funded, infill development.



UDA was commissioned by the City of Baltimore to develop the first-phase master plan to transform the neighborhood of East Baltimore into a Biomedical District. The master plan includes 2,000,000 sq.ft. of research facilities for John Hopkins Medical Center, 1,200 new and rehabilitated residential units, and amenities such as retail, restaurants and parks.



Since the mid-90s, First Ward has added more than 1,600 mixed-use residential units; public and private elementary schools; six civic facilities; 36 dining and nightlife establishments; three hotels; 30 neighborhood service business; 256 employers and 15,570 jobs.

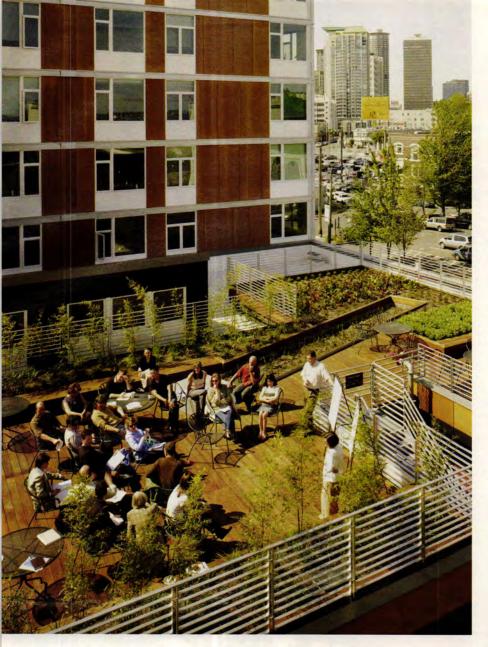
For the First Ward project in Charlotte, NC, launched in the mid-nineties, UDA worked with the Uptown Partnership, Bank of America, city officials, and citizens to redesign one of four quadrants in the city's uptown. The master plan's vision for \$1.6 billion of investment in light rail transit, and new recreation, education and residential facilities has come true: First Ward has added more than 1,600 mixed-use residential units; public and private elementary schools; six civic facilities; 36 dining and nightlife establishments; three hotels; 30 neighborhood service businesses; 256 employers and 15,570 jobs.

East Baltimore is on track for similar success with plans to transform the neighborhood into a Biomedical District. UDA was commissioned by the City of Baltimore, with funding from local foundations, to develop the first-phase master plan for 2,000,000 sq. ft. of research facilities for John Hopkins University Medical Center (JHUMC), 1,200 new and rehabilitated residential units, and amenities such as retail, restaurants and parks.

Upon completion of the master plan in 2003, its reception among the local community was overwhelmingly positive. As with every project, this was due in no small part to UDA's illustration studio, which creates accessible three-dimensional plans that are easily understood by professionals and the general public alike. "Initially, there was so much fear in the community that this plan was just going to expand JHUMC's boundaries, further eviscerating the neighborhood," says Rob Robinson.

"Instead, the consensus vision called for transforming the neighborhood fabric over time, in bite-sized development initiatives that allowed for an incremental reversal of the blight," he notes. "Eye-level and aerial illustrations of the improvements allowed residents to clearly understand how their streets could transform over time while preserving and renovating the pockets of occupied





and viable housing. At the same time, perspective views of the streets adjacent to the hospital functions illustrated how land use and building program decisions could ease the transition from institution to neighborhood."

In one of the firm's largest projects, UDA completed in 2005 a master plan and design guidelines for almost 50 acres of land in Seattle's South Lake Union neighborhood – home to the renowned Fred Hutchinson Cancer Research Center. The project was funded by Vulcan, the investment company of Paul Allen, co-founder of Microsoft, and encompasses 9,000,000 sq.ft. of new and rehabilitated commercial and residential development, with a strong emphasis on biotech and biomedical facilities. Among the new developments are the University of Washington medical research campus, the Seattle Biomedical



Baxter Village is the first of several new, mixed-use villages in Fort Mill, SC. To prepare the pattern book for its Main Street commercial buildings, community center and attached housing, UDA researched nearby Chester and York and worked with a local development team. Its layout is geared toward the pedestrian experience.

The South Lake Union project puts a strong emphasis on biotech and biomedical facilities. Among the new developments are the University of Washington medical research campus, the Seattle Biomedical Research Institute, the Bill and Melinda Gates Foundation, Google and ZymoGenetics. Photo: Benjamin Benscheider Photography

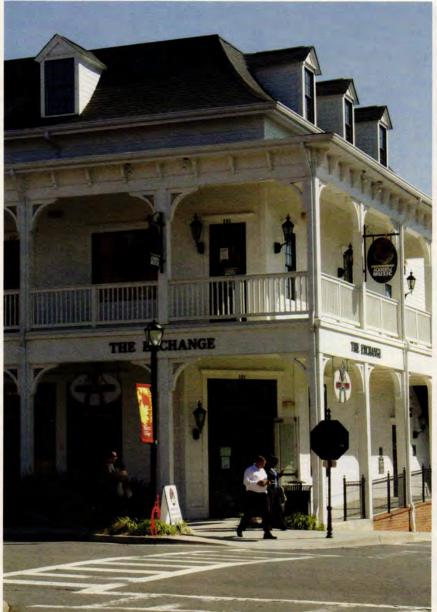
Research Institute, the Bill and Melinda Gates Foundation, Google and ZymoGenetics. "Regardless of the project scale, whether we are working on a neighborhood intersection or the expansion of a major city, we are deeply inspired by our context," says Osth.

#### **New Beginnings**

When designing new towns and pattern books, UDA takes cues from history as well as public forums and the local environment. The goal is to create not only a sense of place, but also the blueprint for sustainability – in every sense. "When we go to a place, we often ask people to identify their favorite architecture, streets and parks," says Osth. "Often, these areas are historic neighborhoods. It is no coincidence that these places were often designed with diverse modes of transportation in mind: walking, biking, transit and cars. Today, our challenge is to develop a plan that merges a respect for tradition with a development program for the future."

With a design based on UDA's research of nearby Chester and York, Baxter Village in Fort Mill, SC, is the first of several new, mixed-use villages to be interconnected by 2,300 acres of nature preserve. The firm worked with a local development team in 2003 to prepare the pattern book for the town's Main Street commercial buildings, community center and attached housing, and a layout geared towards the pedestrian experience. An elementary school, library and YMCA are located at the heart of the village, adjacent to 100,000 sq.ft. of retail and office space, while train systems and walkways connect to the surrounding neighborhood's 1,350 residential units and green space.

"Working on a pattern book is fun, and it is similar to that of our urban design process," says Osth. "We talk to the public at large, officials, developers, builders and homeowners. We learn about what is working, not working



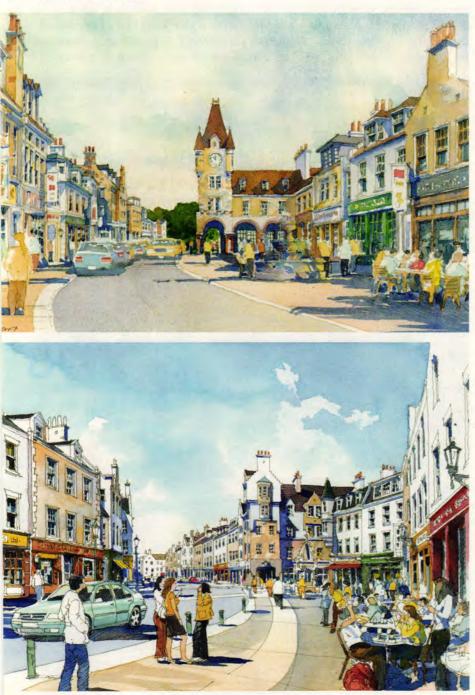
An elementary school, library and YMCA are located at the heart of Baxter Village, adjacent to 100,000 sq.ft. of retail and office space, while train systems and walkways connect to the surrounding neighborhood's 1,350 residential units and green space.

and where there are opportunities. Often, these books become a documentation of an area that has never been gathered."

Using the same principle, large urban projects can be the catalyst for widespread improvement, spurring an economic "ripple effect" throughout their cities. When an area of downtown Pittsburgh was designated as the site for two new major league stadiums (for the Steelers and the Pirates), UDA prepared a master plan that would capitalize on the influx of visitors and investment. Besides the venues themselves, elements of the North Shore plan already implemented include a new urban street grid, two parking garages, a Marriott Hotel, headquarters for Del Monte Foods and Equitable Resources, and a \$30-million riverfront park, with light rail stations, an amphitheater, retail and multi-family housing still to come.

#### Homes Away From Home

In 2007, UDA collaborated with The Prince's Foundation for the Built Environment (PFBE) and Scotia Homes, a regional builder, to produce a pattern book for the town of Ellon in the Northeast of Scotland (see *Traditional Building*, October 2010). As with many older towns in the region, which had expanded since the discovery of North Sea oil, Ellon was in need of new development for its growing population and economic future. However, with the high instance of shoddily built, carelessly designed new construction throughout the region, and a projected 72,000 additional houses by 2030, the future looked bleak.





UDA's Enquiry Design process combined public participation with analysis of local housing typologies and Scottish town-building traditions. The resulting plan called for restoration and new infill within the historic town center, as well as new mixed-use and residential development on the Cromleybank and Castle Meadow site.

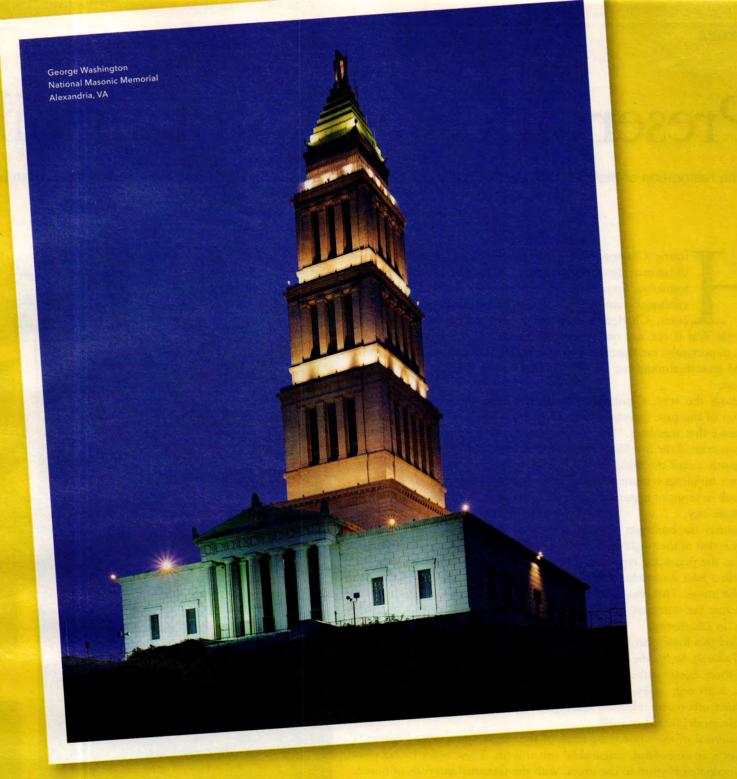
"Over the past five years, we've gone on to work in other towns within the region, and within other regions of the UK," says Maggie Connor. "What is interesting is how our process of asking questions first, understanding the local context, and paying attention to people's input invariably leads to urban design and architecture that resonate with the client and the community. It just so happens that our work in the UK has been coincident to a complete revamp of national planning policy to reverse the legacy of authoritarian, topdown planning strategies and pursue more collaborative and multi-disciplined approaches. In the age of social media and crowd sourcing, it is only a matter of time before planning becomes completely transparent, and I truly believe that firms like ours, who know how to extract useful information and build consensus, are well trained to navigate the future of planning."

"We have been doing this for many years, and we have learned that our process works the same, whether it is in Florida or Seattle, Canada or Scotland," adds Osth.

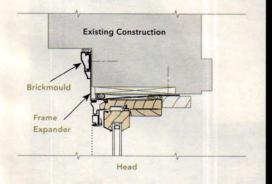
After almost five decades, UDA remains a conduit that bridges tradition with the future. "A community's culture is rooted in its own heritage and traditions," says Osth. These are their strengths. Our goal is to respond and position these neighborhoods, towns and cities for the future." **TB** 

Web Extra: Additional photos can be seen at www.traditional-building.com/ extras/April12Profile.htm.

UDA's 2007 pattern book for the town of Ellon in the Northeast of Scotland called for restoration and new infill within the historic town center, as well as new mixed-use and residential development on the Cromleybank and Castle Meadow site. The Enquiry Design process combined public participation with analysis of local housing sites, typologies and Scottish town-building traditions.



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# Preservation and Sustainability

The restoration of historic buildings in Charleston, SC, shows how sustainability and preservation issues can be solved. By Ralph C. Muldrow, RA

istoric Charleston, SC, has weathered more than its share of traumas since its founding in 1670. The city has survived numerous fires, frequent hurricanes, bombardments, a major earthquake and a hot, humid climate. Like many southern cities, Charleston experienced burgeoning growth in the post-World War II era, not only because of the Naval Yard as an employer but also, importantly, because of the new availability of air conditioning that facilitated growth throughout the South, although at the price of increased energy use.

All along the way, Charleston's ethos has been intertwined with the veneration of the past, especially the architecture. The seal of the city has a Latin phrase that translates, "She guards her buildings, manners and laws." Charleston created the first historic district in America in 1931, and continues to stringently guard the buildings of the old and historic district. Protecting the historic buildings is a sustainable practice, utilizing the 'embodied energy' that it took in terms of materials and labor to build and maintain this sought-after historic city.

Of course, the buildings do present a range of styles, but the pervasive typology is that of the single house. In the 18th and 19th centuries, the single house was the dominant typology. The plan has the narrow end facing the street with a false door which leads to a real front door half way down the side of the house. This was greatly augmented by about 1800 when the false door became the entryway to a long, often double-height side porch, called a 'piazza' in Charleston.

We find this floor plan recurring from the Georgian period, through the Adam (Federal) Style, the Greek Revival Style, Victorian styles, etc., but in all of these exotic garbs the floor plan, fenestration and formality remain constant, with only a few elements giving the house a discernable 'style.' The distinct urbanism created by the repetition of the single house is a very sustainable model in and of itself.

The survival of the underlying form of the single house over large areas of the city is an embedded 'sustainable' urban form. These older blocks provide a syncopated rhythm to the street, with the sustained intervals of house, piazza, garden, house, piazza, garden, etc.

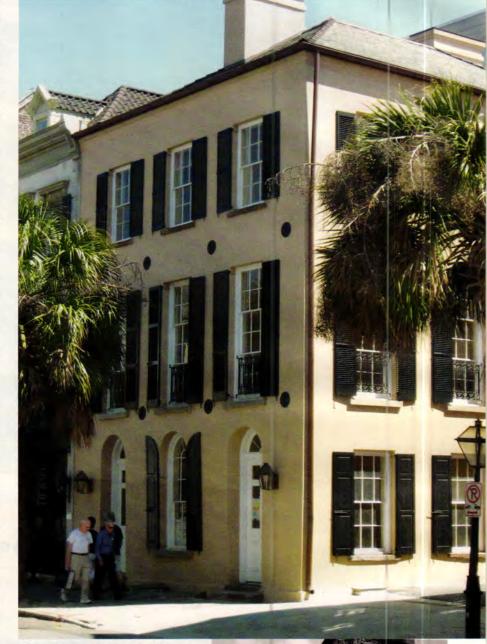
Post-Bellum Charleston was not a prosperous place. The local saying was, "too poor to paint, to proud to whitewash." Yet these weathered remainders of times gone by largely remained standing. Thus in the 1920s there was a phenomenon now called 'the Charleston Renaissance,' wherein the crumbled stucco and naked wood siding of the day became a tourism magnet. Spurring this movement were the evocative etchings of Elizabeth O'Neill Verner, the lyricism of "Porgy and Bess," and even the African-American derived dance, "The Charleston," with its raw energy.

It was in that era that many gardens were designed for the single houses – beautiful parterres with shaped boxwoods and trellises. This glorious layer veils the truth about these back yards, which historically usually functioned as 'urban plantations,' with cows and hogs and chickens raised at the homes.

This 'weathered city' utilized her unique, long-standing architectural layout of houses turned longways into their sites to create a shelter appropriate to the climate. The piazzas all face south and west, which allows them to catch prevailing breezes and allows for the shading of windows when the sun is high in the summer. And in winter the sunbeams drench the house with much needed warmth.

There is a 'louver effect' in which the houses themselves provide shade to the neighboring house and/or garden, just as the louvers of a vent shade each other. The side garden also functioned as a firebreak.

The formal fenestration allows for numerous windows on the south and west sides of the house (facing the prevailing breeze) which feed the few windows (mostly in the staircase) of the north-facing side, allowing for cooling breezes through the single room depth of the house. And despite earnest



Before restoration, #93 Broad Street in Charleston, SC (right), was a ruin. It has now been restored sustainably (above) and is seeking LEED Silver certification. All photos: courtesy of Ralph Muldrow, RA.

attempts by the government throughout Charleston's history to require the use of brick for fire resistance, many houses are wood frame, clapboarded houses built originally with no insulation to allow cooling air movement within their walls. Even the chimney stacks, which facilitate air movement, aided in cooling the single house in the summer.



#### **Case Studies**

For the purposes of this study, "sustainability" will be defined as an approach to construction that strives for efficiency in its use of energy, water and other resources. It is also an approach that favors occupant health and improved employee productivity, and it strives to reduce waste, pollution and environmental degradation.

Green products are those that further the cause of sustainability through recycling and low environmental impacts. Even green products may cause some friction with sustainable building. For example, should one buy a 'green' adhesive product from California? Or should you instead purchase a normal adhesive locally, saving the carbon footprint associated with the transportation of the product, and promoting the economic health of the community? Should you buy the adhesive product at a national chain store like Home Depot for a slightly lower price than the locally owned building supply store, or should you pay the extra money to sustain the viability of a local company?

Now add to the equation a host of preservation issues involved in a building rehabilitation project and other questions arise. The preservation approach to a significant historic building would be to save as much of the extant fabric as possible, or to agree on a period of significance to aim for in the course of making rehabilitation decisions. Which priority trumps the other? This inevitably differs from one project to the next.

Preservation approaches include issues that are less quantifiable but just as important in their own right. For instance, aesthetic considerations may not be optimizing energy use but may instead be highly important for the perpetuation of a building, avoiding demolition, which negates all of the embodied energy in such a structure.

The same goes for significance. For instance, a plain cinderblock structure may be an iconic talisman for the civil rights movement. Should we load up the roof with photovoltaic panels to lower the use of electricity, or will that be an unacceptable incursion on the historic structure?

#### #93 and #97 Broad Street

Some current construction projects in Charleston are grappling with marrying sustainability with preservation – two important but sometimes differing agendas for the betterment of society. A high profile case in point is the twobuilding project at #93 and #97 Broad Street.

The first building, #93 Broad Street, was constructed ca.1800, while #97 was built in 1835. The goals for the much altered and deteriorated buildings were that they may be used as offices and that they will be historically correct and constructed sustainably with 'green' products. In addition, appropriate reconstructions should be based on historic photos (rather than expanding over every last square footage on the site). The two buildings were extremely deteriorated and had been unoccupied for many years.

One example of sustainability and preservation is exemplified by the mechanical systems. Instead of one or two large condensers, #93 Broad has been fitted out with six condenser units, all with a SEER rating of '16.' They are mounted on heavy timber dunnage with rubber blocks to dampen the inevitable vibrations. A filtering system dehumidifies the sultry summer Charleston air and cleans it as well.

This number of condensers allows for them all to operate at about 60 percent of their full strength so as not to wear out easily. This also allows for a number of different zones in the building that can then be adjusted as necessary for specific needs instead of cooling the entire building needlessly.

Many other sustainability items have been addressed with the target being LEED Silver certification. Meeting preservation requirements as well has been a challenge. The windows, for instance, have all been repaired instead



of being replaced, including matching glass panes where the original ones are missing. This painstaking work is appropriate for such prominent historic structures, and it fulfills sustainability goals concerning 'embodied energy,' respecting the reuse of the windows instead of sending them to a landfill.

The original windows were made from slow-growth wood, which is much sturdier than most wood today. The sills were replaced with solid mahogany – a wood that resists decay naturally. They are connected to the jamb with mortise-and-tenon connections. Yet with all of that going for them in the preservation process, a purely sustainable approach might encourage the provision of new windows with higher R-values, to save energy. One way to meet both goals would be to apply interior storm windows.

The historic brick was another issue. An important part of reusing and repointing historic brick is the understanding that early bricks were softer than later 19<sup>th</sup>-century machine-made bricks. Conservation practice emphasizes the need for lime-based mortar which would have been used initially, rather than the Portland cement-based mortar. The latter is harder than the soft bricks and can lead to spalling.

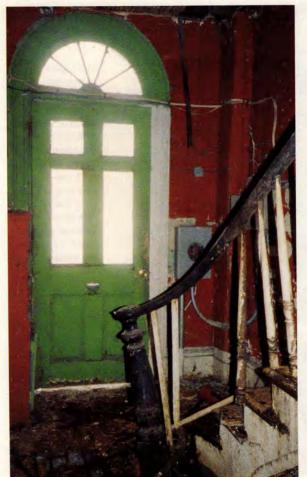
The use of lime mortar, however, is not a 'fix all' in every case, and it carries with it a higher need for maintenance in our present day market where labor is very expensive. (The hands that built the brick walls worked for lower wages and probably included slaves). The solution was to use salvaged bricks from a ruined 19th-century addition, with equal amounts of Portland cement and lime in the sand aggregate. The use of Portland cement will significantly extend the life of the mortar with these harder, machine-made bricks.

Insulation is obviously an important component of the energy-saving approach advocated by LEED. #93 Broad has a new rear addition which is a replica of the earlier addition that was a ruin. In the new addition Charlestonbased Meadors Construction used spray foam insulation on the back of the roof sheathing.

In the historic section, rigid insulation was used to create airspace to allow airflow through the rafter plenums. Closed-cell spray insulation was used to provide a redundant layer of waterproof material and to prevent mold.

The roofing is standing-seam copper on plywood sheathing with insulation as described above. Copper has a long life expectancy and is historically accurate, but it costs significantly more than an asphalt shingled roof and comes from distant sources, possibly even from China.

Sustainability precepts would recommend that materials be local or at least from within a 300-mile radius, minimizing the fossil fuel costs to transport the material. Instead the copper has a big 'carbon footprint' due to the transportation factor. However, preservation precepts call for the historically correct roofing material, and it could be argued that the copper roofing is a 'sustainable' product because of its long life.



Green products used in the rehabilitation of these severely damaged historic buildings



Before restoration, #97, like #93, was a ruin.

included a fire-rated water-resistant sheathing made by National Gypsum Company, the use of stainless-steel screws to strongly secure the framing in perpetuity, lumber purchased from local forests, low-flush toilets, hot water on demand (to keep from having a hot water heater going all of the time), electrical elements such as lights are on a clock or a timer, insulated ductwork and numerous others. The exterior walls are thick brick coated with true lime stucco and painted with mineral pigment paint which allows for vapor to exit the wall.

In terms of the sitework, a silt fence contains run-off of pollutants from the construction site. Metal scraps were recycled and plaster was sent out to be crushed and reused. This high-profile site may serve as a model for others.

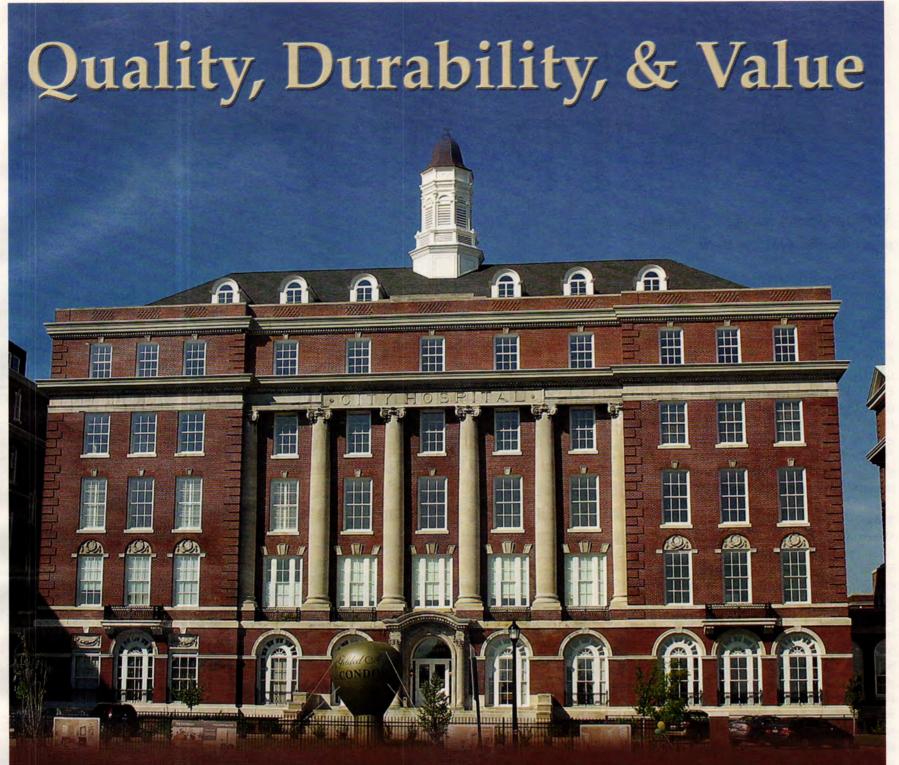
#### **Conclusion:**

As these case studies indicate, sustainability and preservation don't always go hand-in-hand, but knowledgeably made decisions allow us to utilize new technologies and materials to allow sustainability goals for historic structures. Perhaps a new LEED category for historic structures should be created. The Charleston single house has built-in sustainable characteristics out of necessity. We can learn from the sustainable aspects of historic buildings and we can then augment their sustainability with emerging 'green' technologies. **TB** 

Ralph C. Muldrow, RA, is the Simons Chair Professor of Architecture and Preservation at the College of Charleston. He has degrees in architecture and preservation from the University of Pennsylvania and undergraduate degrees from the University of Virginia. He has worked at a number of preservation architecture firms including John Milner Associates. He teaches architectural design and architectural history and has lectured widely on architectural and preservation topics.



Pictured is the interior stair at #97, before and after restoration.



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## PRODUCT SPOTLIGHT Columns

# A Supporting Cast

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# Making sense of the ABCs of column materials. By Gordon Bock

ontradictory as it seems, perhaps the most ancient and traditional of architectural elements – the column – can now be had in a cornucopia of increasingly high-tech materials, some best known only by confusing acronyms like GFRC and FRP. In reality though, builders have been searching for ways to build a better column since they first swapped tree trunks for rocks several millennia ago. The quest has a history of getting more complicated as time goes on, so if you face making a choice between "Column A" or "Column B," first take a look at this quick rundown of the basic, non-metal column materials currently on the market.

#### Stone

When ancient Greeks first saw the monumental stone pyramids and structures of Egypt around the 6th century BCE, they quickly abandoned woodcolumn temple construction in favor of stone, eventually perfecting the sublime vocabulary of Classical column orders. Stone columns still command the timeless appeal of quality and permanence or, as put by William Bybee, president of Bybee Stone in Ellettsville, IN, "Whether the project is public or residential, when a client wants stone, they want stone." As Bybee explains, if the project is institutional, stone is often specified to follow the rest of the building - to match other columns, for example, or details and materials on the building, such as stone lintels or quoins. However, stone columns are no less popular for new buildings of Classical or totally modern design.

Though solid-stone columns have supported large structures for millennia, there is no modern rule-of-thumb on their load-bearing capacity and it is important to first consult a structural engineer. Beyond this, the dimensions possible with stone columns are almost as unbounded as their beauty.

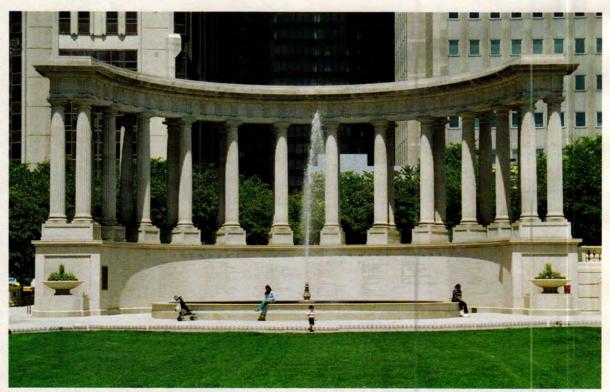
Bybee notes that the fluted columns his company fabricated for Market Square in Washington, DC, are a towering 55-ft. tall. His shop works with three different size lathes – the largest of which can turn drums 10-ft. in diameter. Yet equipment is not what keeps stone columns in check. "When we get to bigger sizes," says Bybee, "the quarry is the issue." As he explains, quarries usually have a maximum on how big a piece of stone they can supply with a limit on flaws, "and naturally," says Bybee, "the customer wants as few flaws as possible."

#### Wood

Stone may be the material of permanence, but America is a land rich in timber and for most of the 19th and 20th centuries the most commonly available columns were wood. By the 1980s, the



Market Square in Washington, DC, consists of two buildings with columns in a semi-circle around the Navy Memorial. Bybee Stone Co. fabricated 26 6-ft.-dia., 55-ft. tall, fluted, solid-limestone columns, complete with capitals and bases, for the project. Photo: Bybee Stone Co.



Bybee cut and carved the new peristyle in Indiana limestone for Chicago's Millennium Park. It includes 24 paired, fluted, 40-ft. tall Doric columns. Photo: Bybee Stone Co.



Left: After the column is turned, 24 flutes are cut into the column shaft. The company can manufacture columns up to 40-in. in diameter and 40-ft. long. Right: This walnut Doric column fabricated by Somerset has 24 equal flutes and is ready to be hand sanded. Photos: Somerset Door and Column Co.

As long as builders have coveted the beauty and permanence of stone, they have also sought ways to circumvent its weight and difficulty to work and move.

introduction of man-made polymers, as well as changes at some of the venerable manufacturers in the industry, began to take their toll on the preeminence of the wood column, but several longtime manufacturers still serve the market.

According to Bob McVicker, general manager of Somerset Door and Column Co. in Somerset, PA, people choose wood columns because of the material's traditional qualities. "If you knock on wood, it feels solid – no ping or hollow sound like metal or fiberglass." He says that appearance is a big factor too. "In a lot of fiberglass products, you won't find really square corners; all the details are relieved a little bit so they can be released from a mold. With a wood column, however, there is no mold; the corners and details are crisper."

Not surprisingly, the clear, rot-resistant, domestic wood species once used to make columns have changed over the decades. "Years ago, redwood was one of Somerset's top sellers," says McVicker, "but of late we've been working in Northeastern white pine, cypress, Spanish cedar and African mahogany for exterior columns." For manufacturers like Somerset, who have been making wood columns for over a century, this has not reduced their capability.

McVicker reports that while Somerset's traditional columns are single-piece and load-bearing, they can also accommodate modern building codes. "Where steel structure is required, we can manufacture split-for-assembly columns to wrap I-beams or steel posts," he says. And size is not a hurdle either. Somerset, for example, can custom-manufacture both round and square columns 40-in. in diameter and to an amazing 40-ft. in length. Says McVicker, "As far as I know, we have the largest wood lathe in the United States."

#### **Cast Stone**

As long as builders have coveted the beauty and permanence of stone, they have also sought ways to circumvent its weight and difficulty to work and move. The historic alternative is cast stone, a varied

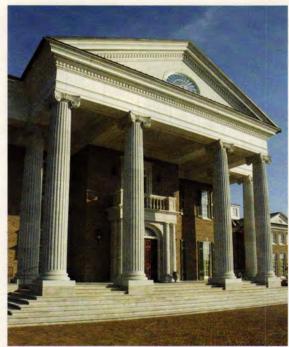


After turning and fluting, the Astragal molding of a wood column is hand turned at the top of the wood column shaft by workers at the Somerset facility. Photo: Somerset

class of masonry materials also called artificial stone and faux stone that is generally described as refined architectural concrete. Early types of cast stone date back hundreds of years, but modern versions became popular in England in the 1820s and incorporate ingredients such as white and grey cement, crushed or natural sand, crushed stone and mineral coloring.

As Mel Fuller, president of Melton Classics in Lawrenceville, GA, explains, "The beauty of a caststone column is that it is not solid like natural stone, but essentially a shell, normally 3 inches or 4 inches thick." In contrast to poured concrete, cast stone is typically made with a "dry" or "earth-moist" mortar

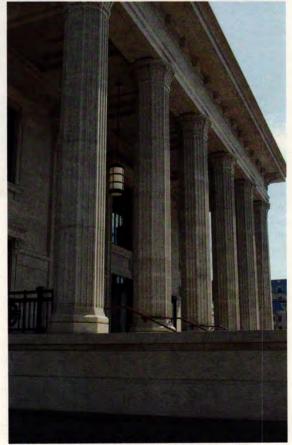
#### **PRODUCT SPOTLIGHT** Columns



GFRC ionic columns are available from Melton Classics. Photo: Melton Classics

consistency – that is, a low water-to-cement ratio. Also, since a cast-stone column is a hand-packed material, it is very consistently dense, so it resists cracking and spalling.

"A precast concrete column, or other wetcast product, is inexpensive, but it has to be kept sealed," says Fuller. "Otherwise, once the concrete absorbs moisture and freezes quickly, the expansion of the ice will crack the product. Cast stone, on the other hand, generally doesn't have those sorts of characteristics. Because of the way it is manufactured, cast stone is very dense, so it doesn't absorb moisture much and it holds up over time."



Bybee fabricated the columns for the Palladium at The Center for the Performing Arts, Carmel, IN. Photo: Bybee



The cast-stone Tuscan columns for this building were fabricated by Melton Classics. Photo: Melton Classics

#### GFRC

First developed by the Russians in the 1940s, glass fiber reinforced concrete (GFRC) employs lightweight fibers to significantly increase the qualities of precast concrete, a process now common for architectural elements, statuary and exterior building façade components, such as wall panels that simulate limestone. In manufacture, long or short high-strength glass fibers are embedded in a cementitious matrix to add tensile strength and load-bearing capacity. According to Fuller, the mix for making columns "has a little polymer in it, and fiberglass, and concrete aggregate. Then it is sprayed up into a mold to give you the look and feel of stone – and if you want, the color too, but it can also be done in paint grade."

#### FRP

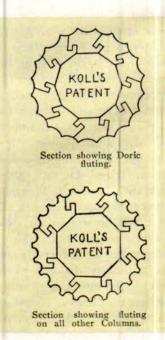
After World War II, fiberglass found many new uses, especially when embedded in polyester or epoxy resin. These are generally categorized under the heading FRP (fiber reinforced polymer), though the actual formulations and manufacturing techniques vary with the products, manufacturers and time. Because it is strong and waterproof, FRP helped propel the postwar popularity of leisure products formerly made of wood, such as boats and skis, and by the 1990s it had found a natural application for manufacturing columns. Today FRP columns are made with two basic processes.

Columns that are filament-wound employ a technique widely used to manufacture cylindrical products where, as glass fibers are coated with resin, they are wound around rotating mold or mandrel, often with a carefully controlled orientation. "You are creating a relatively thin shell," says Fuller, "about  $\frac{3}{16}$ -in. thick in a 24-in. diameter, but it makes an extraordinarily strong column." Filament winding is used to produce pipes and other industrial products and, Fuller adds, "It's actually the same material used in ICBM missile cases." Jeffrey Davis, president of Chadsworth's 1.800.COLUMNS in Wilmington, NC, adds, "Filament-wound columns

#### Wood Pillar Talk

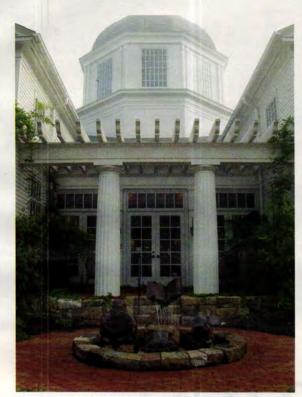
As late as 1910, columns and posts under 12-ft. long were commonly manufactured from solid timbers. Nonetheless, it was the hollow wood column that drove the industry from 1900 on – and for good reason. At the height of the Industrial Revolution, column manufacturers perfected ways of joining staves (narrow boards) into continuous cylinders that could be turned into columns of gargantuan proportions – ideal for the market in Neoclassic-style public buildings and residences that thrived from the 1890s on. Depending upon the manufacturer, the slender staves might be held together with either splines (thin strips of wood) or one of several proprietary joint systems, such as the widely promoted Koll's patent lock-joint.

Koll's patent lock-joint





Chadsworth supplied 20 14-in.x12-ft. GFRC columns with Scamozzi capitals and attic bases for the Wayne County Veterans Memorial in Wayne County, NC. Photo: Chadsworth Columns



Chadsworth produced these custom fluted Greek Doric Columns with Greek Doric capitals in fiberglass for the Poland Public Library in Poland, OH. Photo: Chadsworth Columns

FRP helped propel the postwar popularity of leisure products formerly made of wood, such as boats and skis, and by the 1990s it had found a natural application for manufacturing columns.

are also similar in technology to the large water slides seen at water parks."

Needless to say, excellent compressive load strength at relatively light weight can be handy. As Fuller explains, "Suppose you need a load-bearing column that's 36-in. in diameter and 24-ft. tall. With a GFRC or fiberglass composite column, you are talking about a lot of weight and that is not always an option. In such a case you might consider a wound fiberglass column. And if there are uplift or shear considerations, you can install a piece of steel in the column as well. '

Columns that employ chopped or matt fiberglass are typically manufactured similar to boats, where the glass fibers and resin are laid into a mold, then unmolded when the resin is hard. Chopped/matt fiberglass columns generally are made in halves, so they can be released from the molds. Column halves may be assembled later around a structural member, or they may be assembled in the plant and beefed up to make them load-bearing. In contrast, filamentwound columns are made as an entire cylinder that is completely sealed all the way around.

#### **Composite Fiberglass**

The latest advance in the FRP column, which first appeared in the market in the 1980s, is what is often called the composite column. Ingredients and names vary with each manufacturer but, according to Fuller, "We essentially combine limestone marble dust, polyester resin and fiberglass, and then rotocast that into a column." In rotocasting, the mold is spun so that centrifugal force drives the casting mixture into the outer circumference of the mold - the detailed finished surface of the future column - until the mixture hardens. Including stone dust conserves expensive resin while adding mechanical advantages and improving appearance.

"The finished product has a composition similar to a bathroom countertop, but since it contains less resin than a bathroom countertop, it is harder, very impact resistant and will carry a lot of weight," says Fuller. Composite columns are relatively inexpensive to manufacture, have shown good durability, and therefore have become very popular over the last 20 years. "When you tap on one," says Fuller, "it even feels like stone." TB

Gordon Bock is a writer, architectural historian, technical consultant, lecturer, and co-author of the book The Vintage House (www.vintagehousebook.com).

Web Extra: Additional photos can be seen at www.traditional-building.com/extras/April12 columns.htm.

#### SELECT SUPPLIERS

**Architectural Fiberglass** Copiague, NY www.afcornice.com

Architectural Iron Co. Milford, PA www.architecturaliron.com

Allen Architectural Metals, Inc. Talladega, AL www.allenmetals.com

Architectural Products by Outwater Goodwin Associates Bogota, NJ www.outwater.com

**Bybee Stone** Ellettsville, IN www.bybeestone.com

Chadsworth's 1.800.COLUMNS Wilmington, NC. www.chadsworth.com

DeAngelis Iron Work, Inc. South Easton, MA www.deangelisiron.com

Edon Corp. Horsham, PA www.edon.com

Rochester, NY

Haddonstone (USA), Ltd. Pueblo, CO www.haddonstone.com

www.goodwinassociates.com

**Historical Arts & Casting** West lordan, UT www.historicalarts.com

Hyde Park Mouldings, Inc. Hauppauge, NY www.hyde-park.com

**KEPCO+** Salt Lake City, UT www.kepcoplus.com

**Melton Classics** Lawrenceville, GA www.meltonclassics.com

MWT Custom Wood Working Hickory, NC www.mwtwoodturning.com

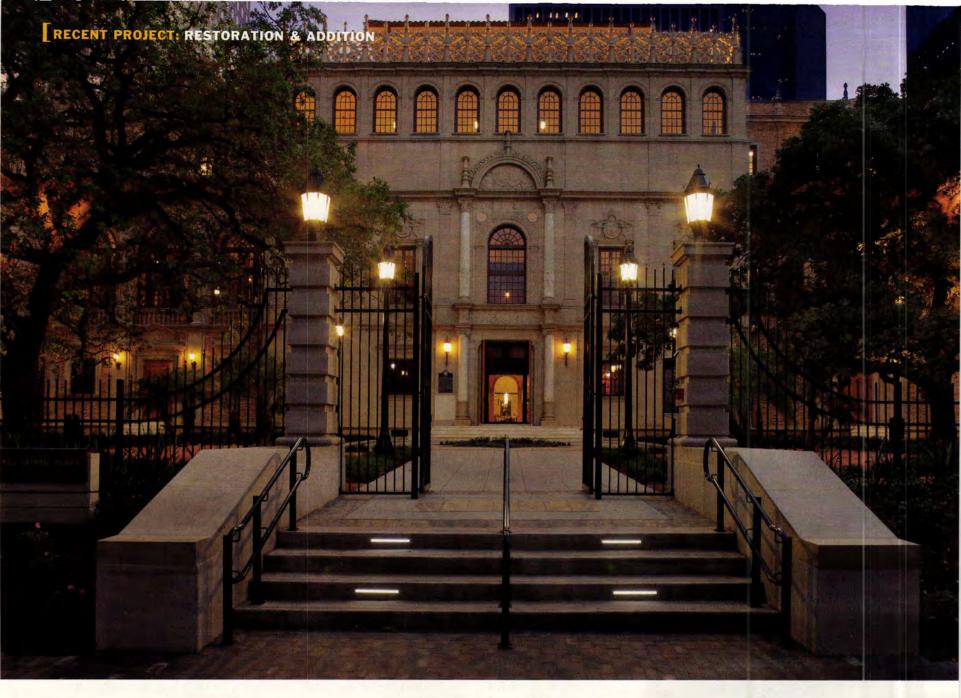
Robinson Iron Corp. Alexander City, AL www.robinsoniron.com

Stone Legends Dallas, TX www.stonelegends.com

Stonex Cast Products, Inc. Farmingdale, NI www.stonexonline.com

Traditional Cut Stone, Ltd. Mississauga, ON, Canada www.traditionalcutstone.com

Somerset Door and Column Co. Somerset, PA www.doorandcolumn.com



# Texas Triumph

IN 2006, BILL WHITE, mayor of Houston, TX, was dismayed that the historic 1926 Julia Ideson Building was underutilized as the home of the Houston Metropolitan Research Center's (HMRC) collection of valuable archives, which was frequented mostly by researchers. He contacted

#### PROJECT

Julia Ideson Building, Houston, TX

#### ARCHITECT

Gensler, Houston, TX; Barry Moore, FAIA, senior associate and lead architect Phoebe Tudor, former architectural historian for the New Orleans Historic District Landmark Commission, who later founded and led a committee that was tasked to raise \$32 million in the midst of a recession to restore and renovate the Ideson. The committee selected the architectural firm Gensler of Houston, TX, not only to restore the building but also to construct an archival wing and outdoor reading garden.

Julia Ideson, the city's first professional librarian, had spearheaded a project to construct a new library to replace the smaller Carnegie Library. She, the library board of trustees and the building committee hired Ralph Adams Cram as well as local architects William Ward Watkin and Louis Glover. Cram, a Boston architect notable for Gothic Revival architecture, designed the building in the Spanish Renaissance style. The stucco and brick façade features cast-iron light fixtures, carved stone columns and pilasters, balconies, arched windows with cherub-relief surrounds and on the main elevation, a roof balustrade sculpted in a floral motif and a dramatic two-story arched pediment over the entryway. Unfortunately, the Great Depression interfered with his plans to include a south wing and outdoor reading room.

In 1976, after half a century, Houstonians once again outgrew their central library. Now named after Ideson and designated an historic landmark by the National Register of Historic Places, the building was haphazardly repurposed as archival storage for HMRC even though the mechanical systems couldn't adequately dehumidify the interiors – vital to preserving paper.

Three decades later, Cram's architectural plans were once again studied for the first phase of the project including the construction of a three-story, 21,500-sq.ft. archival wing, which extends out from the south façade, as well as an adjacent loggia and garden. "The Spanish Renaissance style was a good choice of Cram's," says lead architect Barry Moore. "It relates to Texas being Spanish territory in the  $17^{th}$  and  $18^{th}$  centuries and Spain has a similar warm, tropical climate. The stylistic choice lent itself to a building with excellent cross-ventilation – a necessity before air-conditioning. The elevations on the addition look like close 'first cousins' of the Cram design, with slightly less traditional detailing and solid panels instead of windows on the upper floors where the archives are located. The floor plans were adapted to meet the needs of the HMRC."

The 1926 Julia Ideson Building in Houston, TX, was recently restored and renovated by the architectural firm Gensler, also of Houston. The two-phase project included a new archival wing at the rear, an outdoor garden and cast-iron gates enclosing the property. All photos: courtesy of Gensler

An archival wing, adjacent loggia and outdoor reading garden are new additions to the building. Existing reading rooms were restored, public spaces and staff facilities were renovated, and mechanical systems were upgraded. Floor plan: courtesy of Gensler

Moore designed the addition with a concrete flat slab system to maximize floor-to-floor storage space without extending above the tiled eave lines of the existing building. Mechanical systems were designed to keep environments at 55 degrees and 45 percent humidity levels to preserve the collection of rare books, architectural drawings, maps and images stored in the building. Windows on the first floor feature insulated UV-resistant glass.

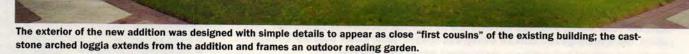
On the exterior, bricks and cast stone match the palette of the original building. "We spent a great deal of time matching the original brick, and ultimately selected a blend from three different suppliers," says Moore. "The previous renovations, most notably in 1956, did not display a very good brick match, but that is seen mainly on the southwest and east façades, which are not the most publicly visible."

A two-story, cast stone loggia with arched openings leads to the outdoor reading room. New castiron gates enclose the area and were fabricated to Cram's original specs. Moore also collaborated closely with Houston, TX-based landscape architects TBG Partners to analyze Cram's schematic drawings and ensure that the space could accommodate tents for outdoor events.

The second phase of the project involved restoring the existing 66,000-sq.ft. building. The cleaned and repaired exterior surfaces are topped with a new roof, and energy-efficient light fixtures and insulated glass feature throughout.

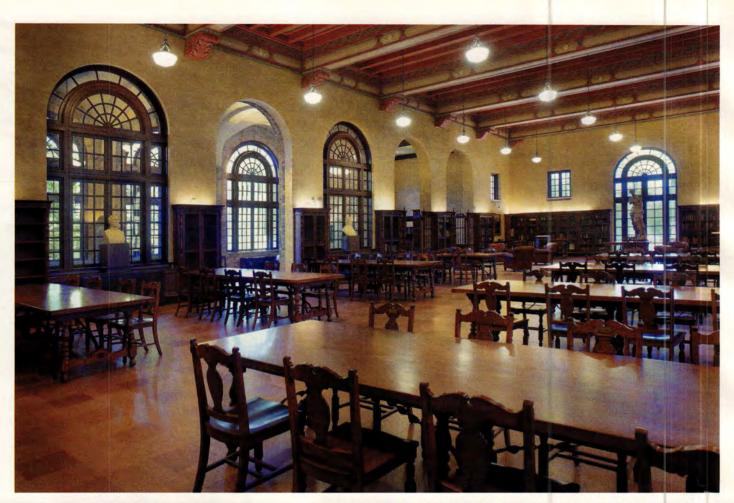
Inside, the electrical, plumbing and air-handling systems were upgraded, and the public reading rooms were outfitted with electronics for special events. One of the most challenging aspects of the renovation was removing asbestos in multiple locations; construction work was stalled for abatement procedures, adding time and costs to the project. The entire three-story reception hall, which included wood portals, corbels, dentil moldings, marble columns supporting the second floor gallery and the intricate coffered ceiling above were meticulously cleaned and restored by New York City-based EverGreene Architectural Arts; the studio also conducted paint analysis to determine the





Right: Polychrome painted beamed ceilings in the reading rooms were restored in the original paint scheme. Approximately 95 percent of the artworks and furnishings that had been in the library during Ideson's tenure were located, documented and restored, and are now displayed throughout the building.

Below: The reception hall is outfitted with state-of-the-art mechanical systems to accommodate special events.



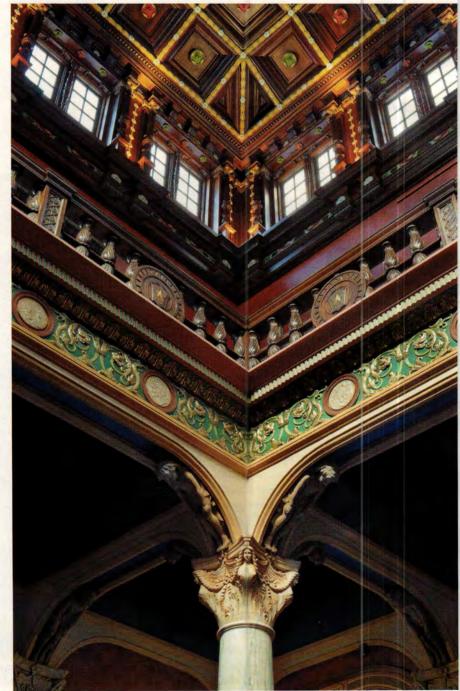


original color schemes in the gallery and public reading rooms. Polychrome painted beamed ceilings in the Reading Room, Meldrum Children's Room, foyer and auditorium were restored by Houston-TX based Milam Painting and Decorating.

On December 5, 2011, the Julia Ideson Building opened its doors to the general public after a five-year, \$32-million restoration and renovation. "For our firm, as well as the contractor, Balfour Beatty Construction, this has been the project of a lifetime," says Moore. "For the first time, the HMRC and its archives and photo lab are in a state-of-the-art facility. The Ideson now provides the city with formal public rooms for special events, and the exhibit hall has become a showcase for the collection. This building is the most elaborate, well-loved and architecturally distinguished structure in Houston, and is now ready again to take its place in the hearts of our citizens – as it first did in 1926." – Annabel Hsin

Web Extra: Additional photos can be seen at www.traditional-building.com/ extras/April12ldeson.htm.

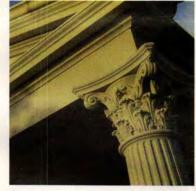
Right: The Tudor Gallery's painted surfaces, marble columns, second-floor balustrade, corbels, dentil moldings and coffered ceiling with sculpted floral motifs were meticulously cleaned and restored by EverGreene Architectural Arts of New York City.















# RES

#### A New E-Commerce Website, Produced by Restore Media, LLC

REX is a new e-commerce website that will go LIVE in May 2012. It serves the 500,000 building and design professionals and enthusiasts who are already researching building materials and services online via Restore Media's eight websites.

REX will make it easy for these "shoppers" to become BUYERS by providing them with a comprehensive look at the suppliers' product lines. REX will allow buyers to search, compare, price and purchase online. REX will feature products, product catalogs, product specifications and product videos-all in an easy-to-navigate, searchable format.



According to research conducted among several thousand building and design professionals in February, 2011, 75% of these industry professionals and their clients already purchase building materials on the internet. These buyers cite "availability," "ability to compare," and "convenience" as their reasons for purchasing via the internet. Some buy direct from the manufacturer, but many buy through dealers and wholesalers. Price is very important to these buyers, but so is "dealing direct" even when discounts are not offered.

Also, according to Restore Media research, only 53% of suppliers SELL online. There is a gap between those who want to BUY online and

those who have the ability to SELL online. REX will help close this gap by providing suppliers with a new e-commerce web site to sell a new market of worldwide web BUYERS.

REX delivers a new marketplace. By virtue of the REX connection to Restore Media, REX will be a trusted source for building material sourcing and buying. Restore Media's publications, websites, e-newsletters, web seminars, conferences blogs and social media will all direct industry trade professionals and enthusiasts to REX. REX does not preclude suppliers from conducting business elsewhere, including from their own websites, but REX has the advantage of leveraging Restore Media's existing buyer database and the integrated media outreach to attract these buyers.

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# A New Chapter

IT ALL STARTED IN 1803 when Oliver Ames, an iron worker, moved to North Easton, MA, and started the Ames Shovel Company. His shovels were used for building the railroads that opened the West, making his family quite successful.

Frederick Lothrop Ames, son of Oliver Ames II, went to Harvard, met H.H. Richardson and commissioned him to design the Ames Free Library (built 1877-79) in North Easton, MA. The 4,350-sq.ft. stone building features an arched entrance facing the street, with a tower connecting the entry

#### PROJECT

Ames Free Library, North Easton, MA

#### ARCHITECT

James Thomas Architect, North Easton, MA; James Thomas, AIA, principal to the main portion of the building. Inside are two elegant reading rooms connected by a hall. The smaller one, known as the mantel room, has a massive mantel designed by Stanford White, who was in Richardson's office at the time, and carved by Augustus Saint-Gaudens.

The larger rectangular reading room is replete with wood (butternut, a light walnut that is very rare these days) details,

also thought to have been designed by White. It is lined with books to the barrel-vault ceiling and features balcony access to the higher shelves and large windows on the end wall.

The Ames family was so pleased with Richardson's work that it decided to have him design the nearby Oaks Ames Memorial Hall, (1879-81) which was given to the town for whatever purpose they might want. It is now a function hall. Altogether there are five Richardson buildings in North Easton. The other three are: the Ames Gate Lodge designed in 1880-81 for Frederick Lothrop Ames, the 1881 Old Colony Railroad Station, also commissioned by Frederick Lothrop Ames, and the F.L. Ames Gardener's Cottage (1884-85). These five comprise the H.H. Richardson Historic District in North Easton, which was added to the National Register of Historic Places in 1972.

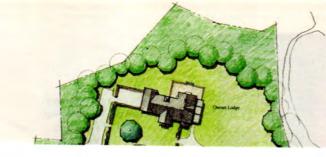
In 1931 Mrs. Fanny Holt Ames donated an addition to the library directing that it be known as the William Hadwen Ames Memorial Room in memory of her husband for the use and benefit of children. The new brick addition by Coolidge Shepley Bulfinch and Abbott added 1,200 sq.ft. to the existing building, bringing the usable space to 5,550 sq.ft.

In the mid-1980s, the town opened another branch and decided once again to enlarge the original building. This project has taken many twists and turns over the years, starting with a study done by Tappé Associates. Then Robert Venturi of Venturi Scott Brown and Associates created a plan for the library involving a contemporary addition, but the town rejected it. Finally, the firm of Schwartz Silver Architects of Boston designed an underground scheme in the mid-1990s, which was widely publicized. This was in the courts for 10 years, and by the time it was settled, the town couldn't afford to build it.

Fast forward to 2006, and James Thomas, an architect who was on the library board, was asked to take on the project. The program called for the creation of more usable space and a general restoration of the historic building. The client was the Ames Free Library, Inc., Donna Richman, president, Board of Directors, and another Ames family member, William Ames, chairman, Building and Endowment committee.

Now restored, the H. H. Richardson Ames Free Library in North Easton, MA, has been returned to its original appearance, and additional space carved out of the former boiler room has given the library the room it needs. All photos: James Thomas unless otherwise noted.

The site plan shows the Ames Library facing Main Street, with the parking lot behind it. The nearby 1854 Queset Lodge, designed for the Ames family by Alexander Jackson Downing, and the gardens are in various stages of restoration. Illustration: Shepard Williams. Landscape Architect

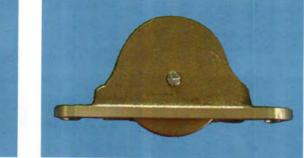


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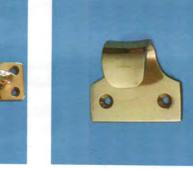






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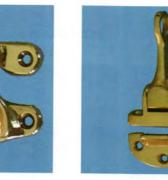


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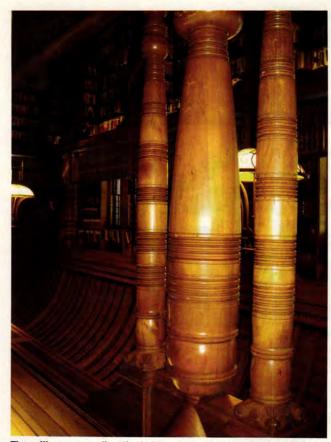
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The railing surrounding the balcony was thought to have been designed by Stanford White. Photo: Daniel McDonald

Also visible in the new circulation room is the original green granite that was excavated right on the site and used to build the library. "It is the major part of the interior finish of the new circulation room," says Thomas.

Another change that Thomas made was the addition of an elevator from the new ground floor up to the main

floor. It is tucked into the hyphen that connects the original Richardson Library to the 1931 addition and has a glass wall providing a view of the outdoors. The other walls are papered with the Bibliotheque bookshelf pattern from Brunschwig & Fils. The original Richardson walls, which had been buried when the addition was built, are now visible to visitors as they step out of the elevator.

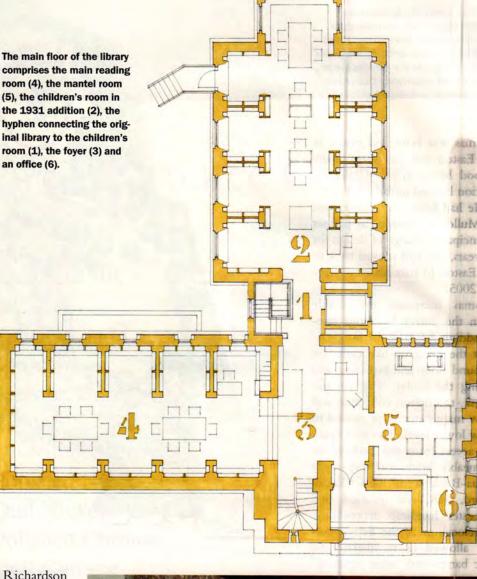
The work included both the exterior and the interior. On the exterior, most of the masonry was restored. Richardson's tower was removed piece by piece and laid out on the lawn and reconstructed. This masonry restoration was done by Folan Waterproofing and Construction Co. of South Easton, MA, and the Joseph Gnazzo Company of Vernon, CT.

Crocker Architectural of North Oxford, MA, supplied the copper roof for the new elevator and also restored the gutters and downspouts. The general contractor for the library project was A.P. Whitaker and Sons of West Bridgewater, MA. MEP+FP engineering was supplied by Building Engineering Resources (BER), and the structural engineer was Danker Structural Consulting.

Thomas' work is perhaps most visible in the restoration of elegant Richardson main floor which houses the barrel-vault reading room and a smaller room known as the mantel room. The larger barrel-vault room is the one that was "liberated" by moving the fiction collection to the ground floor. "There is speculation that Stanford White, who was in the Richardson office at the time, designed the reading room," he says. The balcony provides access to the higher stacks and is accessible only to staff. "The elegant railings and columns are original but the railings are lower than today's code which restricts public access," Thomas notes.

With guidance from historic photos, Thomas returned the room to its original appearance, with two original Richardson chairs and tables restored to their place in the center of the barrel-vault reading room. Lighting was also important. All fluorescent lighting was removed in all three rooms on the main floor, and hidden lighting was added. Historic pendants that Thomas discovered in a salvage yard were installed – two to the barrel-vault room, three in the children's room and one to the mantel room. "We would have liked to replicate the original gas fixtures, but it was too expensive," Thomas explains.

In a nod to the current needs, the far wall of the barrel-vault room holds a giant TV hidden behind a wooden screen. The TV can be turned on to look like a fireplace. Also new are a state-of-the-art fire system and a wheelchair lift that takes people up the three stairs from the hall into the reading room.





Now cleaned and restored, the mantel that was designed by Stanford White and carved by Augustus Saint-Gaudens is once again the focal point of the smaller reading room known as the mantel room.

Right: Part of the ground floor had been used as a coal room. It now houses the fiction collection that was moved from the main reading room.

In the smaller reading room, the mantel room, the massive carved-masonry mantel (designed by Stanford White and carved by Augustus Saint-Gaudens) was cleaned, removing 100 years of grime, and restored. Providing guidance here and throughout the project was Jessica Zullinger, a conservator with Building Conservation Associates New England of Dedham, MA. Another factor contributing to the success of the restoration was the Community Preservation Act in Massachusetts (CPA), a state program promoting historic preservation. It has made a grant for the garden restoration.

The 1931 addition housing the children's wing didn't require as much restoration. The stucco walls were cleaned, and wood flooring found under the cork was exposed and restored. "This wing required only cleaning up and new lighting," says Thomas. The ceiling had had fluorescent lighting from the 1950s. Now these recesses supply the heating and air conditioning to the wing and the room is lit with the three pendants.

Windows and doors throughout were restored by Westmill Preservation, Halifax, MA, and some of this work is still in progress.

As for the future, plans call for the restoration of the main entrance facing the street and re-creation of the formal garden in the grounds behind the building. "We want to create a public space for the town and to add a bocce court," says Thomas.

Since the grand opening in December, 2009, the circulation at the library has doubled. "We get an average of 500 visitors a day," Thomas says. He was able to increase the usable space and to restore the historic rooms while keeping the existing footprint, and he came in on budget - \$2.5 million.

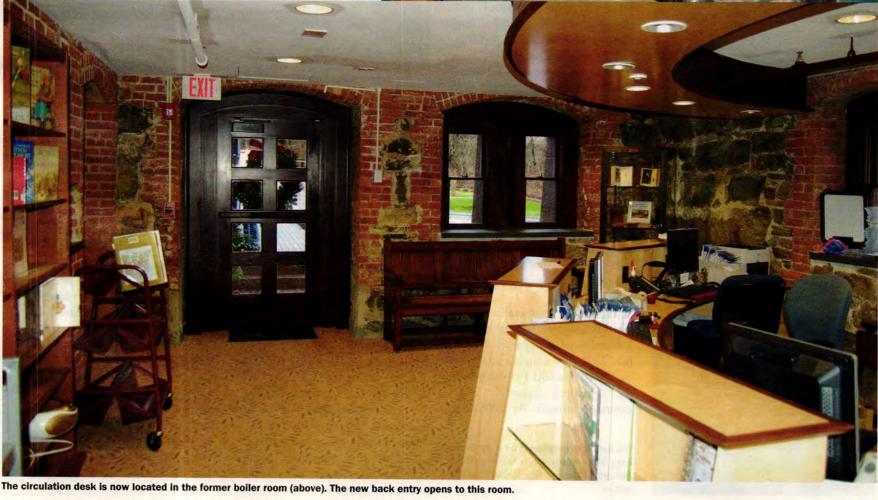
"I am not a preservation architect by trade," says Thomas. "But I am a pragmatist and I was trusted by the board. We were very careful not to remove any history, and all of the additions and changes are reversible."

Sounds like preservationist to me. - Martha McDonald

Web Extra: Additional photos can be seen at www.traditional-building.com/extras/April12ames.htm.







# Casting Call

VICTORIAN CAST-IRON FAÇADES were the first curtain walls, maximizing natural light and column-free interior space. When poorly maintained, they can become unstable sieves.

Scott Henson, the head of a five-person preservation architecture firm in New York City, Scott Henson Architect, LLC, spent part of the past four years overseeing the disassembly and reconstruction of a ten-story sieve. The cast-iron 1890s front of 648 Broadway, in Manhattan's trendy NoHo

#### PROJECT

Bleecker+Bond Building, New York, NY

#### ARCHITECT

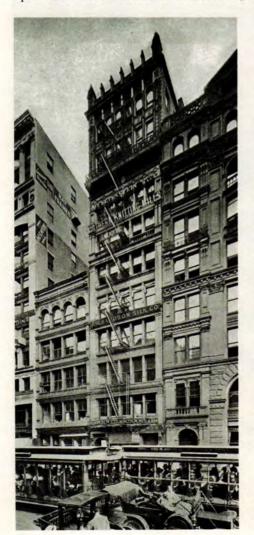
Scott Henson Architect, LLC, New York, NY; Scott Henson, principal neighborhood, has been brought back from the brink of crumbling to watertight and structurally secure status.

The longtime owners originally hired Henson just to inspect the façade after a chunk of cast iron fell, but the assignment grew into a \$1.2 million overhaul. Tenants can now gaze across NoHo's higgledy-piggledy water towers through noise-blocking double-paned windows framed by metal

rosettes, wreaths, dentils, balusters, and volutes. (Much of the intricate ornamentation is new, made by Robinson Iron in Alexander City, AL, and CCR Sheet Metal in Brooklyn, NY.)

Henson was drawn to the commission partly because so many innovative Belle Epoque buildings survive nearby, including Louis Sullivan's leafy Bayard Building and McKim, Mead & White's Romanesque-arched Cable Building. "The historic and current development of the NoHo district is built upon progressive architectural experimentation," he says.

The original name of 648 Broadway was the Banner Building, after its millionaire developer, Peter Banner. A wholesale clothing merchant, he also put up commercial and residential structures, including luxury apartment blocks



on Central Park West. For the first phase of 648 Broadway, he hired Cleverdon & Putzel, prolific architects of everything from Harlem row houses to a crematory in nearby Queens.

Tenants, mostly clothing manufacturers and sellers, filled Cleverdon & Putzel's eight floors soon after the Banner Building opened around 1892. Six years later, Banner brought in Robert T. Lyons (the architect of several Banner apartment buildings) to add a two-story penthouse. Lyons echoed Cleverdon & Putzel's arched windows and Classical vocabulary, and the top two floors serve as a lacy six-bay capital for the four-bay plainer base and shaft.

Banner was prominent enough that his daughter Rosalie married a Bloomingdale department store heir (and that couple's son married a Rothschild baroness). But the developer apparently overextended himself. By 1906, 648

The building looks much as it did in the early 20<sup>th</sup> century, minus a few parapet pinnacles. Photo: Office for Metropolitan History



Similar adventurous experiments in lacy cast-iron façades, the precursors of modern curtain walls, surround the ten-story shaft of 648 Broadway. Photo: Jack Kucy

Broadway was embroiled in his bankruptcy proceedings. The current owner's family acquired it in the 1940s, and its tenant roster has evolved over the decades from handbag makers to a jazz club to designers, theater and film professionals and other creative types. The building is now loftily called Bleecker+Bond (after the adjacent side streets).

Henson and the contracting team (Soho Restoration, Brooklyn, NY; subcontractor: MJE Contracting, Corona, NY) ended up removing unfortunate 20th-century accretions. Underneath a 1970s aluminum storefront, they found fluted pilasters, reliefs of lions' heads and an 1890s advertising plaque for the Cornell brothers' Manhattan iron foundry. Leaky window air conditioners had fostered decay in the wood sash and helped corrode the wrought-iron bolts that held together the cast iron. Lyons' sheet-metal upper floors were severely deteriorated, pocked with dents and punctures.

The façade had to be literally taken apart. "Cast-iron construction is a complex assembly, a very heavy, unwieldy, brittle puzzle that demands meticulous care," says Henson. Soho Restoration dismantled the façade and patched the salvageable iron with epoxy from Belzona of Glen Cove, NY. Robinson Iron and CCR fabricated and installed new elements. The fasteners are now stainless steel, and the joints are soldered.

J. Scott Howell, Robinson's general manager, is a veteran of such replication projects, and reports that New York's 19<sup>th</sup>-century foundries supplied an astonishing variety of compatible patterns that clients could mix and match. "Everybody wanted something a little special about their particular location," he says.

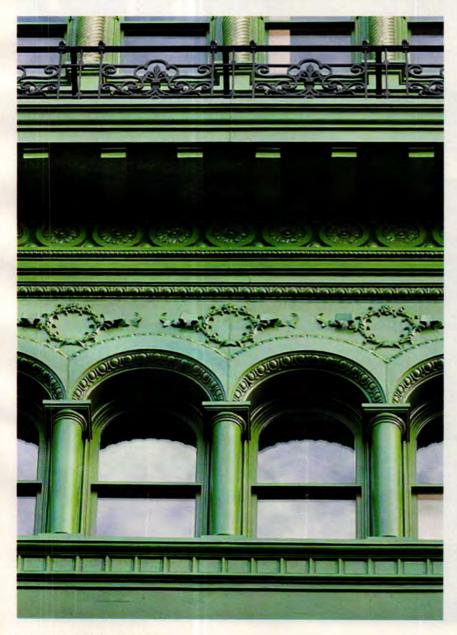
The original architects mixed and matched Classical motifs, including rosettes, high-relief ovals and fluted pilasters. Photo: Jack Kucy

Viles Contracting Corp. of Newark, NJ, used Cathedral Stone mortars to repair the eroded brownstone trim at the former Banner Building. JPadin of Newark installed Spanish cedar-framed, insulated-glass windows in doublehung and pivoting formats. New HVAC was woven throughout the ten floors, with mechanical equipment hoisted onto the roof, all while the offices remained occupied. Coal storage spaces



on the ground floor, still full of container-loads of coal, were cleared out to adapt into a fire stair egress leading to a back alley.

Henson and project subcontractor Julio Mejia recently toured a reporter through the building, starting at its foundations on granite blocks and brick



ziggurats. In a basement cavity, a brick vault arches over the adjacent subway tunnel. (A train rattled ominously through, just in time for the tour.) A petaled leaded-glass transom illuminates the lobby's white marble walls. An ADA-compliant steel ramp, fitted snugly over a basement lateral beam, now leads to the ground floor's deli. Floral and ribbon motifs recur there in the pressed-metal ceiling, exposed column capitals and penny round tile floors.

On the shaft for the venerable Otis freight elevator, Eastlake florals and stripes are incised on each floor's door latches. Iron asters and scrollwork trail down the back stair's railing. Construction debris from the 1890s still lurk in a strange windowless half-floor between the Cleverdon & Putzel base and Lyons' addition.

#### Left: Ribbons between wreaths protrude from the façade along the eighth floor. Photo: Jack Kucy

Below: The delicate ornament was literally eroding away. Photo: Joe Polowczuk



Top: Leaky gaps had opened in the seventh-floor balustrade. Photo: Joe Polowczuk

Middle: The sheet-metal sections on the upper floors required repairs to rust swaths, dents and punctures. Photo: Joe Polowczuk

Henson has developed a kind of sub-specialty in such dusty crannies and daring vintage architectural materials around New York City. In recent years he has secured the envelopes of everything from Flemish Revival stepped parapets to Colonial Revival lime-stone corner quoins, copper mansards, Beaux-Arts gilded domes, 1930s skylights, 1960s concrete balconies and 1980s curtain walls. Clients keep coming in with unique building conditions compromised by weather, time and gravity, or building components in some unexplained state of duress. "Those are the kinds of challenges I love," he says, "and that are important to me for my work as a preservation architect." – Eve M. Kahn







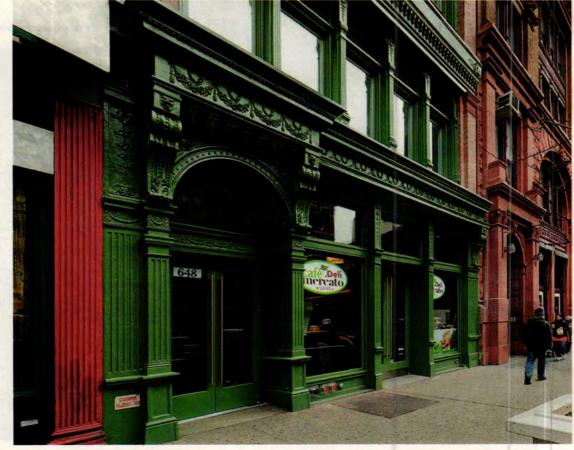
Before restoration, brownstone trim was falling away in chunks. Photo: Joe Polowczuk



The freshly cast balusters at Robinson Iron's Alabama foundry await shipment to Manhattan. Photo: J. Scott Howell

Right: The storefront has been freed of 20<sup>th</sup>-century accretions, and an ADA-compliant ramp snuck over a basement lateral beam at the deli doorway at right. Photo: Jack Kucy





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Architectural Grille custom made these bronze grilles for a restoration project.

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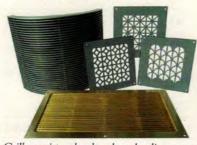
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Gotham Metalworks fabricated this precision plasma cut replication domed roof for a NYC landmarked building.



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Members of NOMMA, the National Ornamental & Miscellaneous Metals Association, fabricate items such as this monumental gate.

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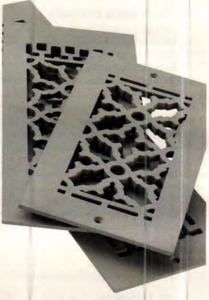
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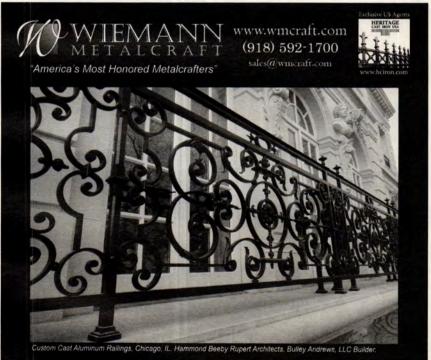
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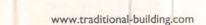
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Designed and fabricated by Fine Architectural Metalsmiths, this life-size limited-edition patinated sharp shin hawk was cast in silicon bronze.

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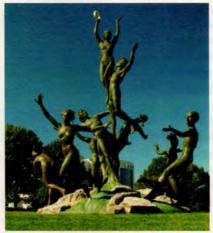
Andromeda, model #E640 from Haddonstone, is a replica of a 19th-century Italian whitemarble statue.

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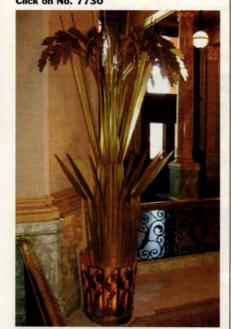


"Musica," a 40-ft.-tall bronze sculpture by Alan LeQuire consisting of nine 16-ft.-tall figures, is located on Music Row in Nashville, TN.

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# **Spirit of the Ocean**

A 1927 sandstone carved fountain in Santa Barbara, CA, has been re-created by master carvers.

#### **By Josie Schoel**

Architect William Mooser III introduced the now pervasive Spanish Colonial style to the area. His design for the new palatial Moorish-Spanish courthouse, which occupies an entire block of downtown Santa Barbara, was initially met with local resistance. Now the celebrated site boasts 150,000 visitors annually and is considered one of the most beautiful government buildings in the country.

In 2005, it was designated a National Historic Landmark, prompting The Courthouse Legacy Foundation to undertake the task of preserving this Santa Barbara architectural icon. After rehabilitating the Hall of Records and restoring the Mudéjar ceiling in one of the two original courtrooms, the foundation turned its attention to the Spirit of the Ocean fountain at the main entrance to the courthouse.

The Spirit of the Ocean, an elegant sandstone carving of a supple-limbed man and woman on either side of a large, stylized dolphinfish, captures the essence of Santa Barbara's relationship to the ocean. But the beloved sculpture, originally carved in 1927 by Ettore Cadorin, had been decomposing for decades, losing more than 80 percent of its original form.

In an effort to save the sculpture from further water damage, pool paint was applied to the sandstone figures.

Although the intention was to keep moisture out, for more than 50 years the acrylic material had actually sealed water in the sculpture, causing the surface of the sandstone to decay. In essence, this local gem was eroding from the inside out. The Courthouse Legacy Foundation came to the conclusion that provisional maintenance would no longer suffice: The piece had to be re-created.

British Stone, Hunt Studios and Melka Sculpture worked diligently on the front lawn of the Santa Barbara courthouse for seven months to re-create the Spirit of the Ocean. While bronze, marble or even cement would have been more durable than sandstone, due to historic preservation regulations, the new sculpture was expected to adhere as much as possible to Caldorin's original material, tools and process.

The original stone was located in Refugio Canyon but because a rare Californian frog had taken up residence in the same area, the restora-



Above: Working on the front lawn of the Santa Barbara courthouse for seven months, British Stone, Hunt Studios and Melka Sculpture re-created the historic Spirit of the Ocean fountain. It is 14 ft. long, 8 ft. tall and 7 ft. deep. Photo: Nathan Hunt

Right: This historic photo reveals the character of the original sandstone sculpture.

tion team decided to look elsewhere. As luck would have it, a harder, potentially more durable version



of the same sandstone was located not far from the original location, at Slippery Rock Ranch – the site of the old 1800s stage coach route over the Santa Ynez Mountains.

The massive piece of stone was delivered by crane to the courthouse lawn. The dedicated team of skilled stone carvers, who recently received a 2011 Pinnacle Award for restoration from the Marble Institute of America, then began removing approximately 35 tons of stone to create the replica Spirit of the Ocean.



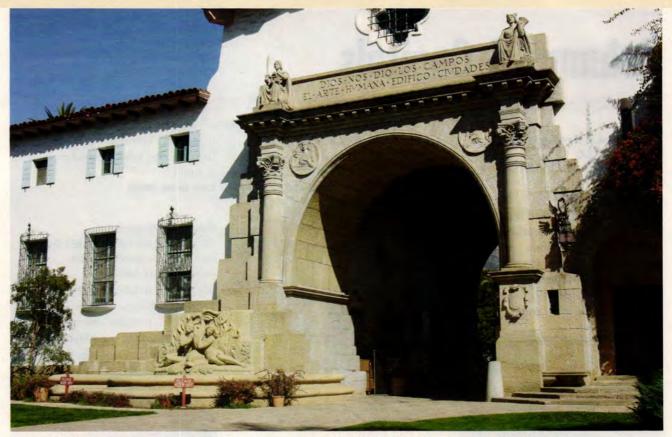
Andrian Melka is hand sculpting lost detail onto the foam model. Photo: Nathan Hunt



This detail of the stylized man and woman on either side of the dolphinfish illustrates the skill and artistry of the carvers. Photo: Nathan Hunt

A 3-D laser scanning system determined the exact measurements of the carving, and then a foam model was created. The sculptors then carved the five pieces of stone, creating a statue measuring about 14-ft. wide x 7-ft. deep and 8-ft. tall, utilizing the pointing method, an 18th-century method of reproduction using a point mapping tool.

While the professional carvers were highly accomplished, having worked on projects such as Westminister Abbey, Salisbury Cathedral and the Princess Diana Memorial to name a few, this project was challenging. The sandstone blocks were larger than those the sculptors had previously worked with, and Cardorin's style, inspired by the late 19th-century Lebensreform movement, was difficult to emulate. The muscles and facial features of the original figures were more pronounced than those of a typical Classical statue, yet such



The new Spirit of the Ocean fountain is located at the main entrance of the Santa Barbara Courthouse. Photo: Nathan Hunt

"looseness" is difficult to achieve in a replica. After practicing on a number of spare pieces, the stone carvers achieved the final finish by cutting the form with hand-made tools and using techniques they had developed to give texture to the surface.

Working six days a week under an event tent, in broad daylight, the carvers quickly became something of a tourist attraction. Not only did they show passers-by what they were doing, but they also showed them how, turning the makeshift studio into something resembling a class. The team also gave tours to local organizations and docents to the Santa Barbara Museum and Courthouse. Interest from the public was a particularly positive aspect of the experience, given the current demand for modern, simple architecture and the diminishing number of skilled professionals in the stone-carving field. The collaborative expertise, skill and effort of Nathan Hunt, Nick Blatern and Andrian Melka gave the Spirit of the Ocean back to the community.

The architecture of Santa Barbara continues to reflect the history of its inhabitants, including the native Chumash Indians, the arrival of the Spaniards in the 17th century, and the influence of the Franciscan monks. Between the 18th century and the middle of the 19th century, Santa Barbara saw a proliferation of stone construction, turning the once dusty seaside enclave into a city with promise and permanence. To ensure the enduring presence of the sculpture, the new Spirit of the Ocean fountain will be kept under the close eye of the Courthouse Docent Council. **B** 

#### **The Sculptors**

**Nathan Hunt**, the proprietor of Hunt Studios, is a European artisan, master carver and accomplished architectural sculptor with more than 18 years of experience specializing in hand-carved stone and ornamental modeling. He has worked on projects worldwide, including the Princess Diana Memorial, Westminster Abbey, Exeter Cathedral, Crosby Hall, the Royal Opera House, Drumlanrig Castle and Yorkminster Cathedral.

Andrian Melka has been a member of Hunt Studios since 1998. Hunt and Melka met while working at the renowned architectural carving workshop of Dick Reid in York. Andrian has completed many sculptures for clients in the U.K and the U.S., including Lord Rothschild, HRH The Prince of Wales, Lord Conrad Black, St Mungos Church, Glasgow, Chiswick House, London and numerous other private commissions.

Britishstoneworks proprietor **Nick Blantern** has been a qualified architectural carver and stonemason for more than 24 years. He perfected the craft while restoring old English churches, government buildings and castles (Buckingham Palace and Caldicot Castle). His work in the U.S can be found at the Cleveland Museum of Art, Santa Barbara County Courthouse, San Francisco City Hall, San Francisco Zoo and various high-end residential projects. He is based in the Cleveland, OH, area.



Nick Blantern works on the Spirit of the Ocean sculpture.



Nathan Hunt is pictured left with Blake Rankin – one of several apprentices who worked on the project.

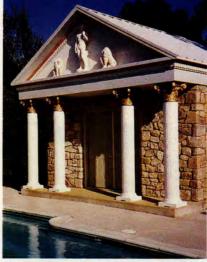
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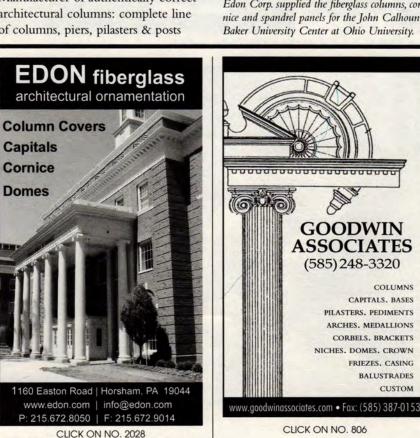
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Architectural Products by Outwater supplied these fluted columns with gold-leaf Corinthian capitals.

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Goodwin Associates supplied the columns and capitals for this restaurant.

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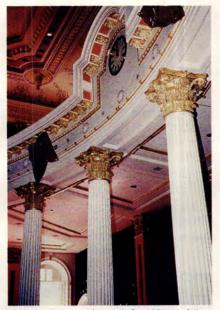
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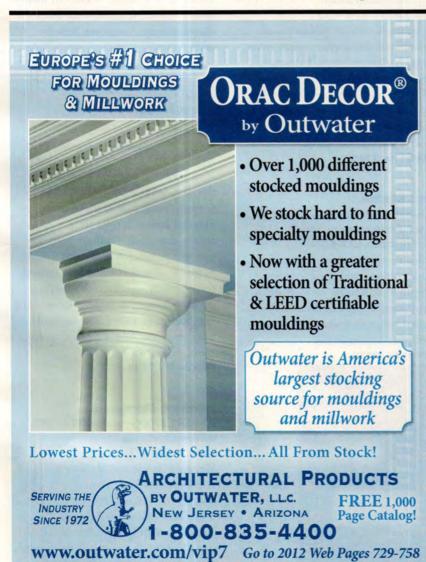


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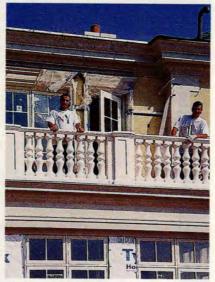
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412-687-1517; Fax: 412-687-7969 www.nikocontracting.com Pittsburgh, PA 15213 Custom fabricator & contractor of sheet metal & roofing: slate, tile & other roofing; storefronts, cornices, cupolas, domes, steeples, snow guards & leader heads; copper, lead-coated copper, zinc & stainless steel; metal ceilings. Click on No. 8300

#### **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, cupolas, cresting, street lighting & gazebos; wrought iron/steel, aluminum, bronze & cast iron; historical restoration. Click on No. 3240

#### Schiff Architectural Detail, LLC

617-887-0202; Fax: 617-887-0127 www.schiffarchitecturaldetail.com Chelsea, MA 02150

Custom fabricator of metalwork: exterior lamps, lampposts, plaques, fences, fountains, sculpture, gazebos, planters, interior & exterior railings & grilles, domes, finials; non-ferrous forged work; machine-shop service; rubber molding & pattern work; capitals; windows, doors & door hardware; mantels, fans, fireplace tools; historical restoration. Click on No. 7730

#### 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, steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940. Click on No. 1223

# **Doors, Entryways & Hardware**

To order product information from a company in this Sourcelist, go to www.traditional-building.com/rs and click on the appropriate reader service number.

#### Abatron, Inc.

800-445-1754; Fax: 262-653-2019 www.abatron.com Kenosha, WI 53144 Manufacturer of products for restoration & repair: wood consolidation

& repair, door restoration, concrete patching & resurfacing, metal restoration, moldmaking & casting, structural adhesives, protective coatings, strippers & related products. **Click on No. 1300** 

#### Allegheny Restoration, Inc.

304-594-2570; Fax: 304-594-2810 www.alleghenyrestoration.com Morgantown, WV 26507 Manufacturer of reproduction & custom wood doors & windows: window replication, restoration & repair; hardware replacement; storefronts & ecclesiastical projects.

Click on No. 1004



Period-style wood entry doors are a specialty of Allegheny Restoration.

#### Arch Angle Window & Door 330-723-2551; Fax: 330-722-4389 www.archangleohio.com Medina, OH 44256

Custom fabricator of special shape aluminum storm doors, windows, hardware & screens: round top, arch top, cathedral & Gothic designs; tempered & low-e glass.

Click on No. 1937



Arch Angle Window & Door manufactured this traditionally styled entry door.

#### Architectural Products by Outwater, LLC 800-835-4400; Fax: 800-835-4403 www.outwater.com

Bogota, NJ 07603

Manufacturer of 65,000+ decorative building products: architectural moldings & millwork, columns, capitals, wrought-iron components, balustrading, door & hardware, lighting, ceiling tile, art glass, mantels, furniture & cabinet components & more. **Click on No. 1088** 



The range of decorative door hardware from Outwater includes these doorknobs and plates.

#### **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. **Click on No. 1670** 



This solid-brass lever is supplied by Architectural Resource Center.

#### **Ball & Ball Hardware**

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

Custom manufacturer & supplier of ornamental metalwork & hardware: door, window, shutter, gate & furniture hardware; fireplace tools; wrought iron, steel, aluminum, bronze, brass, copper & cast iron; custom reproductions. **Click on No. 2930** 



Ball & Ball Hardware supplies Victorian and Early American hardware reproductions in brass, cast iron, bronze, wrought iron and steel.

#### E.R. Butler & Co.

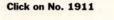
212-925-3565; Fax: 212-925-3305 www.erbutler.com New York, NY 10012 Manufacturer of historically accurate, premium-quality hardware for doors, windows & furniture: brass, bronze, nickel, silver & wrought iron; complete design selections of Early American period hardware; many finishes. **Click on No. 2260** 



HeartWood Fine Windows & Doors 585-340-9085; Fax: 585-254-1760 www.heartwoodwindowsanddoors.com

Rochester, NY 14606 Manufacturer of custom architectural wood windows & doors: Honduras mahogany & other species; traditional mortise-&-tenon construction; stan-

dard & decorative glazing; related window & door hardware; 64-yearold company.





HeartWood Fine Windows & Doors made this 2¼-in. thick mortise-and-tenon solid-wood door of sawn white oak to replicate the original door made 100 years ago.

Heather & Little Limited

800-450-0659; Fax: 905-475-9764 www.heatherandlittle.com Markham, ON, Canada L3R OH1 Fabricator & supplier of historical sheet-metal roofing & specialty architectural sheet metal: finials, cornices, leader heads, cresting, metal shingles, pressed-metal siding, cupolas, steeples, domes, reproductions; capitals & balustrades; Kalemein & lot-line metal windows & doors. **Click on No. 2470** 

#### 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. **Click on No. 1210** 



This 11-ft. custom bronze door was manufactured by Historical Arts & Casting with a patina formulated to age gracefully in any climate.

House of Antique Hardware 888-223-2545; Fax: 503-233-1312 www.hoah.us 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. Click on No. 1096

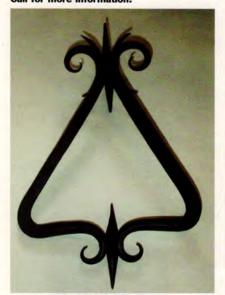


This traditional door set and steeple-tip door hinge are available from House of Antique Hardware in nine finishes.

### Kayne & Son Custom Hardware 828-667-8868; Fax: 828-665-8303

www.customforgedhardware.com Candler, NC 28715

Manufacturer of forged- & cast-metal hardware: strap, H, HL, butterfly & butt hinges; thumb-latch locksets, gate hardware, shutter dogs & more; fireplace tools; grilles; bathroom accessories & kitchen equipment; restoration; catalog \$5. **Call for more information.** 



This triangular door knocker was manufactured by Kayne & Son.

#### Lowe Hardware

207-593-7405; Fax: 207-226-2033 5 Gordon Dr. Rockland, ME 04841 Manufacturer of door hardware: levers, thumb turns, pulls, locks & more.

#### **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. Click on No. 1907



Historically styled hardware is available from Nobilus.

#### Nobilus

435-744-0400; Fax: 435-744-0500 www.nobilusluxury.com Corinne, UT 84307 Manufacturer of window & door hardware: traditional styles & designs; variety of materials & finishes.



Parrett Windows & Doors offers custom doors.

Parrett Windows & Doors 800-541-9527; Fax: 877-238-2452 www.parrettwindows.com Dorchester, WI 54425 Manufacturer of custom wood & aluminum-clad windows: any geometric shape, numerous wood species & complete finishing capabilities; historical replications; custom wood doors in numerous species, finishing options; screen doors, casings & moldings. **Click on No. 3003** 

#### 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. **Click on No. 1998** 

#### **Richards-Wilcox**, Inc.

800-253-5668; Fax: 630-897-6994 www.rwhardware.com Aurora, IL 60506

Manufacturer of historical reproduction door hardware: for gates, slide, swing & slide-fold doors; strap hinges, door pulls, bolts, latches, trucks & track for doors weighing up to 5,000 lbs.; Turn of the Century designs & replicas. **Click on No. 1579** 



Heavy-duty hinges, latches and handles from Richards-Wilcox were used on this traditionally styled carriage house door.

#### 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, cupolas, cresting, street lighting & gazebos; wrought iron/steel, aluminum, bronze & cast iron; historical restoration. **Click on No. 3240** 

#### Schiff Architectural Detail, LLC 617-887-0202; Fax: 617-887-0127 www.schiffarchitecturaldetail.com Chelsea, MA 02150

Custom fabricator of metalwork: exterior lamps, lampposts, plaques, fences, fountains, sculpture, gazebos, planters, interior & exterior railings & grilles, domes, finials; non-ferrous forged work; machine-shop service; rubber molding & pattern work; capitals; windows, doors & door hardware; mantels, fans, fireplace tools; historical restoration. **Click on No. 7730** 

#### The Nanz Company

212-367-7000; Fax: 212-367-7375 www.nanz.com New York, NY 10025

Designer & manufacturer of periodstyle door, window, cabinet & furniture hardware: Gothic to Modern; specialized finishes; bathroom fittings & accessories; works directly with architects, designers & builders; consultation, specification & restoration services. **Click on No. 1988** 



The Nanz Company supplies a full line of door and cabinet hardware in dozens of standard and custom-plated and -patinated finishes.

#### Wiemann Metalcraft

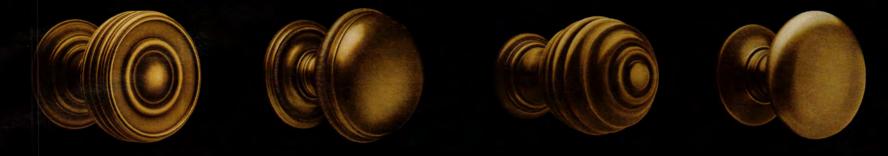
918-592-1700; Fax: 918-592-2385 www.wmcraft.com Tulsa, OK 74107

Designer, fabricator, finisher & installer of fine quality custom ornamental metalwork: railings, fences, gates, steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940. **Click on No. 1223** 



Wiemann fabricated these bronze Art Deco door panels.



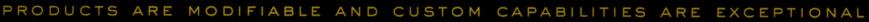


BEAUTIFUL DOOR HARDWARE MANUFACTURED BY AMERICAN CRAFTSMEN



THREE THOUSAND PRODUCTS IN TWENTY-FOUR HAND-RUBBED FINISHES



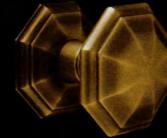




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# **Shutters & Shutter Hardware**

To order product information from a company in this Sourcelist, go to www.traditional-building.com/rs and click on the appropriate reader service number.

#### Architectural Products by Outwater, LLC

800-835-4400; Fax: 800-835-4403 www.outwater.com Bogota, NJ 07603

Manufacturer of 65,000+ decorative building products: architectural moldings & millwork, columns, capitals, wrought-iron components, balustrading, door & hardware, lighting, ceiling tile, art glass, mantels, furniture & cabinet components & more. **Click on No. 1088** 

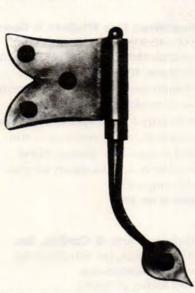


This collection of shutter hardware is available from Outwater in wrought iron.

#### Ball & Ball Hardware

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

Custom manufacturer & supplier of ornamental metalwork & hardware: door, window, shutter, gate & furniture hardware; fireplace tools; wrought iron, steel, aluminum, bronze, brass, copper & cast iron; custom reproductions. Click on No. 2930



This iron rat-tail hinge, item #H41 from Ball & Ball Hardware, comes in hand-forged and semi-handmade versions.

#### 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.

Click on No. 2260

#### **Goodwin Associates**

585-248-3320; Fax: 585-387-0153 www.goodwinassociates.com Rochester, NY 14618 Supplier of architectural products: cornice moldings, columns, capitals, balustrades, pergolas, door & window surrounds, ceiling medallions, niches, brackets, corbels, mantels, shutters & more; polyurethane, FRP & hardwood millwork. **Click on No. 806** 

#### Kayne & Son Custom Hardware

828-667-8868; Fax: 828-665-8303 www.customforgedhardware.com Candler, NC 28715 Manufacturer of forged- & cast-metal

hardware: strap, H, HL, butterfly & butt hinges; thumb-latch locksets, gate hardware, shutter dogs & more; fireplace tools; grilles; bathroom accessories & kitchen equipment; restoration; catalog \$5.



The D1 shutter dog from Kayne & Son Custom Hardware is hand forged in steel and has a butterfly backplate.

#### Timberlane, Inc.

215-616-0600; Fax: 215-616-0749 www.timberlane.com Montgomeryville, PA 18936 Custom fabricator of exterior shutters: more than 25 historically accurate styles & designs; available in traditional woods or maintenance-free Endurian; large selection of period shutter hardware.

Click on No. 1056; 1925 for Endurian



This paneled shutter with period-style hardware was crafted by Timberlane.

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# **Storms & Screens**

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#### Allied Window, Inc.

800-445-5411; Fax: 513-559-1883 www.alliedwindow.com Cincinnati, OH 45241 Manufacturer & installer of 'invis-

ible' storm windows: custom colors, shapes & glazing materials; aluminum; sound-reduction protection from UV & vandalism; interior & exterior; commercial & residential applications. **Click on No. 690** 



Allied Window supplied the Protective Allied One Lite (PAOL) exterior removeable storm windows for the Byron White U.S. Courthouse in Denver, CO.

Arch Angle Window & Door 330-723-2551; Fax: 330-722-4389 www.archangleohio.com Medina, OH 44256

Custom fabricator of special shape aluminum storm doors, windows, hardware & screens: round top, arch top, cathedral & Gothic designs; tempered & low-e glass. **Click on No. 1937** 



Arch Angle provided the storm windows and doors for this building.

#### **Cityproof Windows**

718-786-1600; Fax: 718-786-2713 www.cityproof.com Long Island City, NY 11101 Manufacturer & installer of custommade interior window systems: aluminum, storm/screen combo, arched & custom shapes; mechanical fastenings; acrylic, lexan, UV-resistant, standard, low-E, tempered, laminated & etched-glass glazing. Click on No. 2390



Interior storm windows from Cityproof windows are designed to reduce noise infiltration.

#### HeartWood Fine Windows & Doors

585-340-9085; Fax: 585-254-1760 www.heartwoodwindowsanddoors.com Rochester, NY 14606

Manufacturer of custom architectural wood windows & doors: Honduras mahogany & other species; traditional mortise-&-tenon construction; standard & decorative glazing; related window & door hardware; 64-yearold company. **Click on No. 1911** 

#### 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.

Click on No. 1210

#### Innerglass Window Systems

800-743-6207; Fax: 860-651-4789 www.stormwindows.com Simsbury, CT 06070

Custom manufacturer of glass interior storm windows for energy conservation & sound-proofing: automatically conforms to opening, compensating for out-of-square conditions; no subframe needed; all glazing options. **Click on No. 909** 



Compression-fit interior storm windows from Innerglass Window conform to any opening.

#### **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, steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all

cast- & wrought-metal alloys, finishes

& architectural styles; since 1940.

Click on No. 1223

SEARCH, COMPARE, PRICE, PURCHASE WWW.RexSellsDirect.com

#### A New E-Commerce Website, Produced by Restore Media, LLC

REX is a new e-commerce website that will go LIVE in May 2012. It serves the 500,000 building and design professionals and enthusiasts who are already researching building materials and services online via Restore Media's eight websites.

#### For more information, please contact:

Jennifer Baldwin (718) 619-7645 jenbaldwin1@msn.com Robin Habberley (202) 339-0744, Ext. 112 rhabberley@restoremedia.com James F. Powers (312) 925-7793 jpowers@restoremedia.com Peter H. Miller (202) 339-0744, Ext. 104 pmiller@restoremedia.com



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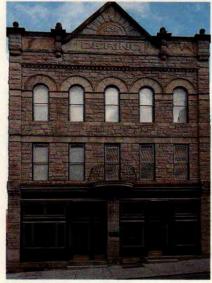
# **Wood Windows**

To order product information from a company in this Sourcelist, go to www.traditional-building.com/rs and click on the appropriate reader service number.

#### Allegheny Restoration, Inc.

304-594-2570; Fax: 304-594-2810 www.alleghenyrestoration.com Morgantown, WV 26507

Manufacturer of reproduction & custom wood doors & windows: window replication, restoration & repair; hardware replacement; storefronts & ecclesiastical projects. Click on No. 1004



Allegheny Restoration completely restored and renovated the millwork, windows and entrance of the Dering Building in the historic city of Morganstown, WV.

HeartWood Fine Windows & Doors 585-340-9085; Fax: 585-254-1760 www.heartwoodwindowsanddoors.com Rochester, NY 14606

Manufacturer of custom architectural wood windows & doors: Honduras mahogany & other species; traditional mortise-&-tenon construction; standard & decorative glazing; related window & door hardware; 64-yearold company. Click on No. 1911



HeartWood supplied the replacement windows for this 100-year-old cemetery gatehouse in Rochester, NY; they are made of quarter-sawn white oak and bent glass.

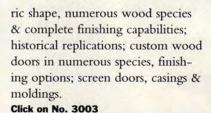
**Marvin Windows and Doors** 888-537-7828; Fax: 651-452-3074 www.marvin.com Warroad, MN 56763 Manufacturer of wood windows & doors: clad & clad-wood; special shapes; custom sizes & more than 11,000 standard sizes; historical replicas; interior & exterior storm windows. Click on No. 1263



All-wood interior and exterior insert double-hung windows and screens are offered by Marvin.

**Parrett Windows & Doors** 800-541-9527; Fax: 877-238-2452 www.parrettwindows.com Dorchester, WI 54425 Manufacturer of custom wood & aluminum-clad windows: any geomet-

FAX (304) 594-2810





Parrett Windows & Doors offers a variety of historical wood windows.

#### **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. Click on No. 1998

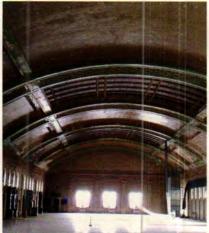


Pella's Architect Series wood- and aluminumclad wood double-hung, single-hung and fixed windows are available in a broad range of sizes, shapes, wood types (pine, douglas fir, alder, and mahogany) and include many custom glass options and muntin patterns.

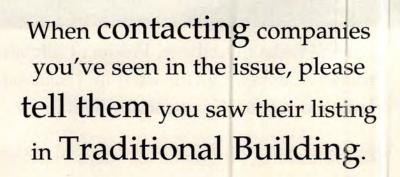
#### **Re-View**

816-741-2876; Fax: 816-746-9331 www.re-view.biz

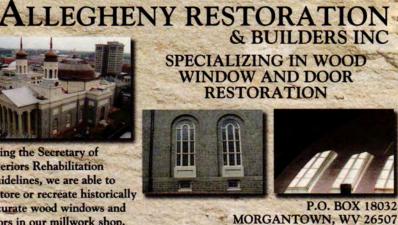
North Kansas City, MO 64116 Manufacturer of historic wood windows: all wood species & glass types; wood- & steel-window restoration; field installation, abatement & finishing; commercial projects nationwide.



Re-View restored the historic wood and steel windows and the skylights at Union Depot, St. Paul, MN.



Using the Secretary of Interiors Rehabilitation Guidelines, we are able to restore or recreate historically accurate wood windows and doors in our millwork shop.



PHONE (304) 594-2570 WWW.ALLEGHENYRESTORATION.COM CLICK ON NO. 1004





Inc. • Installer: Harbrook Fine Windows,

tico Gallery (NYC) • Archit





# Surf the Industry

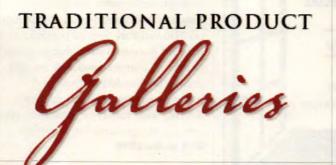
Online data & links for more than 673 suppliers of products & services for restoration, renovation and historically inspired new construction for civic & commercial projects.

www.traditional-building.com

### WHEN IT HAS TO LOOK LIKE IT WAS ALWAYS THERE.

HeartWood created units to fill these 14-foot-tall arched openings, enclosing the open portico built in 1914. The window and door details exactly matched those of other original units throughout the museum.

FINE WINDOWS AND DOORS 800-321-8199 | heartwoodwindowsanddoors.com



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# **Metal Windows**

To order product information from a company in this Sourcelist, go to www.traditional-building.com/rs and click on the appropriate reader service number.

#### Arch Angle Window & Door

330-723-2551; Fax: 330-722-4389 www.archangleohio.com Medina, OH 44256

Custom fabricator of special shape aluminum storm doors, windows, hardware & screens: round top, arch top, cathedral & Gothic designs; tempered & low-e glass. **Click on No. 1937** 



This hollow metal window was built by Heather & Little for the Roebling Museum in New Jersey.

#### **Heather & Little Limited**

800-450-0659; Fax: 905-475-9764 www.heatherandlittle.com Markham, ON, Canada L3R OH1 Fabricator & supplier of historical sheet-metal roofing & specialty architectural sheet metal: finials, cornices, leader heads, cresting, metal shingles, pressed-metal siding, cupolas, steeples, domes, reproductions; capitals & balustrades; Kalemein & lot-line metal windows & doors. **Click on No. 2470** 

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.

Click on No. 1210

#### **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.

Click on No. 1263





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

#### Parrett Windows & Doors

800-541-9527; Fax: 877-238-2452 www.parrettwindows.com Dorchester, WI 54425 Manufacturer of custom wood & aluminum-clad windows: any geometric shape, numerous wood species & complete finishing capabilities; historical replications; custom wood doors in numerous species, finishing options; screen doors, casings & moldings.

Click on No. 3003

#### **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. **Click on No. 1998** 

#### Schiff Architectural Detail, LLC

617-887-0202; Fax: 617-887-0127 www.schiffarchitecturaldetail.com Chelsea, MA 02150

Custom fabricator of metalwork: exterior lamps, lampposts, plaques, fences, fountains, sculpture, gazebos, planters, interior & exterior railings & grilles, domes, finials; non-ferrous forged work; machine-shop service; rubber molding & pattern work; capitals; windows, doors & door hardware; mantels, fans, fireplace tools; historical restoration. **Click on No. 7730** 

#### Seekircher Steel Window Repair Corp.

914-734-8004; Fax: 914-734-8009 www.seekirchersteelwindow.com Peekskill, NY 10566 Restorer of steel casement windows & doors: all work done on site; repaired & restored steel windows & doors at Frank Lloyd Wright's Fallingwater; vintage steel casement windows & doors; more than 6,000 windows repaired annually. Click on No. 3590



This vintage steel window was completely refurbished by Seekircher Steel Window Repair.

#### 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, steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all

doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940. Click on No. 1223

# 2012 ARTHUR ROSS AWARDS

MONDAY, MAY 7, 2012

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The Institute of Classical Architecture & Art is pleased to announce the winners of the 2012 Arthur Ross Awards for Excellence in the Classical Tradition:

ARCHITECTURE HBRA Architects, Chicago, Illinois

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The Awards ceremony and celebratory dinner will take place on Monday, May 7, 2012 at the University Club, One West 54th Street in New York City, beginning with a cocktail reception at 7:00 p.m. The Awards dinner will take place at 8:00 p.m. In addition to the five Arthur Ross honorees, the ICAA board of directors are pleased to acknowledge the contributions made by architect, author, trustee emeritus, and founding Southern California Chapter President, Marc Appleton.

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# It's A Steel

Steel windows present a challenge in many restoration projects.

#### By Martha McDonald

windows for energy conservation reasons, and there are firms that can provide historically accurate new windows.

On the repair side of the argument is John Seekircher, owner and founder of Seekircher Steel Window Repair, Peekskill, NY. The firm repairs and restores thousands of steel windows every year, for commercial and residential projects. The family-owned and operated firm has been in business since 1977, and has a long list of projects to its credit, including Frank Lloyd Wright's Fallingwater.

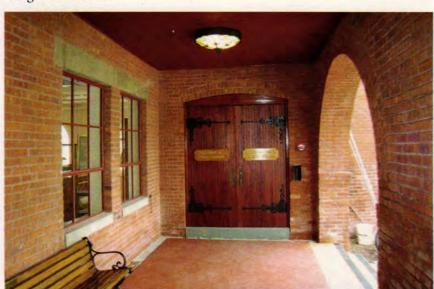
One of the advantages of repair versus replacement, Seekircher notes, is that it is usually quite a bit less expensive, "and the craftsmanship and lifespan of historic and steel windows is really unmatched by most replacement windows on the market today. Once restored, the historic windows are as good as new, even better."

One such recent example is Ely Hall at Vassar College, Poughkeepsie, NY, where Seekircher restored 24 steel windows of various sizes ranging from 4x5-ft. to 7x11-ft. "Here at Vassar College, we make a great attempt to restore our historic building envelope systems," says Jeff Horst, Director of Special Projects at the college. "Many of our buildings are older so that involves masonry restoration, replacing roofs, and either refurbishing or replacing the windows. One of the considerations is improving energy efficiency. Ely Hall has a mix of window sizes, some with divided lites, and some with no divided lites."

"The work is the same in all of the jobs," says Seekircher. "The windows are primed by hand, (we don't spray paint) and putty-glazed by hand, the same way it was done years ago. Then we add two finish coats and clean the glass and

you have windows that are as good as new. The alloys in those windows are incredible. At Vassar, we only replaced about six feet of steel. The windows were still in very good shape. That's what we come across generally."

"The task was to restore the envelope system, the copper roof and the masonry," Horst notes. "The windows – both wood and steel – were a bit of a challenge. There was no question about the wood windows – they had to be replaced. At first we decided to replace the steel windows, but after further investigation, we found that the steel was in good condition; the paint and the glass were not."



The entry at Ely Hall after restoration now features refurbished windows





Over the years, the steel windows at Vassar had become encrusted with paint and were inoperable (left), After restoration (above), the windows were as good as new, providing light to classrooms and art studio. All photos: courtesy of Seekircher Steel Window Repair unless otherwise noted.

"Seekircher made it clear that these windows were certainly worthy of restoration. He told us that the steel from this era is very good. We saw very little rust," says Horst. "The bottom line is that Seekircher completely restored the windows, with paint the same color as the original. We have gotten many compliments on the windows. They look really good, just like the original windows."

The college brought in CVM Engineering, a Philadelphia building restoration consultant for the project. "Vassar is one of the older campuses in the country and they have a lot of historical buildings," notes Matt Ridgway,



The rlargest windows at Vassaris Ely Hall are 7x11 ft. All are now restored. Photo: Andy Wilson, CVM





A Seekircher worker paints one of the windows at Ely Hall.

At Columbia University Hospital, the windows were taken out, loaded on to trucks and taken to Seekircher's shop in Peekskill, NY.

architectural engineer, CVM. "Ely Hall is not on the National Landmark list, but it was built in 1889, with an addition in 1906. Our understanding is that when they are this big, it is usually easier to work in place, but because they

the windows were original to the building." "Our preference is always to salvage historic fabric in these historic buildings," he adds, "but one of the big questions is energy efficiency. What are you sacrificing energy-wise with restoration?"

CVM looked at different options, including new thermally-broken aluminum windows that would replicate steel, and offer increased insulation values. He found that the cost of replication was two to four times the cost of restoring the historic steel windows. A decision was made to use laminated glass, rather than single-page glass, to provide more energy efficiency.

"The steel windows at Ely Hall were in fair condition, needing only to be scraped down, primed and painted," he notes. "So we restored them all in place. Fortunately, Seekircher also had a collection of historic hardware for replacements where needed."

"When looking at historic windows, there is always that decision to see if something is worth salvaging from financial standpoint and how important is original fabric. This project married these two thoughts. When we can, we like to try to get the best of both worlds."

While the windows at Vassar were restored

on site, those at Columbia University Hospital in New York City were removed from the building and restored in the Seekircher shop. Another difference was the pricing structure - it was more expensive to restore rather than replace the windows, but the decision was made to restore because of the significance of the historic material.

"The Physicians and Surgeons Building is the flagship building for Columbia University Medical Center, and is the main entrance to the center," says Richard H. MacDowell, CSI, CDT, partner, Grenadier Corp., Bronx, NY, the general contractor for the project. "It is also one of the earliest buildings, constructed in the mid-1920s. The three monumental windows are right in the front. They are enormous – three stories high."

Richard Pieper, director of preservation at Jan Hird Pokorny Associates, NYC, the architect for the Columbia University Medical Center project, notes: "We are a preservation firm, so we are very, very sensitive to changes in design. In this case, we felt very strongly that aluminum extrusion windows would significantly impact the look of the building. We spoke to the client about it and they agreed."

"These are definitely the biggest steel windows

When they are this big, it is usually easier to work in place, but because they had to do some repairs on the limestone, we would have been in the way, so the work was done in the shop." The windows were dismantled, loaded into Grenadier trucks and taken to the shop. "We made several trips to the shop to monitor the work and

ing one of the windows.

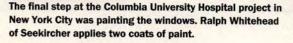
After the Columbia windows were restored in the shop, they were put back in the building where workers installed and putty-glazed

the glass. Seekircher worker Omar Hernandez is shown here glaz-

talk about certain repairs," MacDowell notes. "At some point, a decision was made to replace all of the glass rather than just broken planes." Grenadier workmen set the repaired steel windows in place and then Seekircher did the final painting and glazing (1/4-in. laminated glass) on site.

"The client was thrilled," says MacDowell. "We got so many comments from people who said they were such beautiful windows. They didn't realize that they were the old windows. Even some engineers thought they looked like new windows. John also added some new hardware. The windows really stood out. It was a big 'wow' factor." **TB** 

Web Extra: Additional photos can be seen at www.traditional-building.com/ extras/April12windows.htm.





The restored steel windows at Columbia University Hospital now greet visitors as they enter the medical complex. Many viewers thought they were new. Photo: Richard MacDowell, Grenadier Corp.

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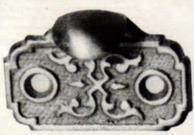
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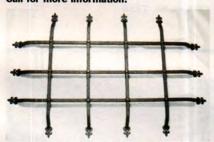
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This window grille was custom made by Kayne & Son.

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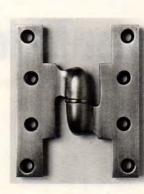
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- Presenters: Gregory F. Shue, principal, Shue Design Associates, Sullivan's Island, S.C.

Brian Baggett, Southeast territory manager, Marvin Windows and Doors, Orlando, Fla.

**Moderator:** Judy L. Hayward, education director, Traditional Building Exhibition and Conference and Traditional Building Conference Series, Restore Media, LLC, Washington, D.C.

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#### Presenters: To be announced.

Moderator: Judy L. Hayward, education director, Traditional Building Exhibition and Conference and Traditional Building Conference Series, Restore Media, LLC, Washington, D.C.

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Presenters: Staff from the National Park Service, Washington, D.C.

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828-667-8868: Fax: 828-665-8303 www.customforgedhardware.com Candler, NC 28715 Manufacturer of forged- & cast-metal hardware: strap, H, HL, butterfly & butt hinges; thumb-latch locksets, gate hardware, shutter dogs & more; fireplace tools; grilles; bathroom accessories & kitchen

equipment; restoration; catalog \$5. Call for more information.



Hand-forged custom gate hardware is one of the specialties of Kayne & Son.



#### Lake Shore Industries, Inc. 800-458-0463; Fax: 814-453-4293 www.LSISIGNS.com Erie, PA 16502-1624

Manufacturer of cast-aluminum & bronze signs & plaques: street signs, town seals, historical markers, building letters, lighted & non-lighted signs, lampposts, cast bases for street signs, posts, bollards. Click on No. 8730



This cast aluminum 32 x 24-in. Esquire doubleface sign from Lake Shore Industries features a galvanized-steel arm bracket.

#### **Richards-Wilcox**, Inc.

800-253-5668; Fax: 630-897-6994 www.rwhardware.com Aurora, IL 60506

Manufacturer of historical reproduction door hardware: for gates, slide, swing & slide-fold doors; strap hinges, door pulls, bolts, latches, trucks & track for doors weighing up to 5,000 lbs.; Turn of the Century designs & replicas. Click on No. 1579



This cast-iron table and chair set from Robinson Iron features a fern motif.

#### **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, cupolas, cresting, street lighting & gazebos; wrought iron/steel, aluminum, bronze & cast iron; historical restoration Click on No. 3240

#### The Nanz Company

212-367-7000; Fax: 212-367-7375 www.nanz.com New York, NY 10025 Designer & manufacturer of periodstyle door, window, cabinet & furniture hardware: Gothic to Modern; specialized finishes; bathroom fittings & accessories; works directly with architects, designers & builders; consultation, specification & restoration services. Click on No. 1988

#### UgMO TechnologiNomes

484-690-0570; No fax www.ugmo.com King of Prussia, PA 19406 Supplier of UgMO ProHome soilsensor system: underground sensors monitor soil & maintain soil moisture at root level. Click on No. 2027

#### 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, steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940. Click on No. 1223



This iron gate for a 12-ft. opening was cast in one piece by Wiemann Metalcraft; it was installed on in-ground hydraulic operators.

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## calendar of events

**National Preservation Institute: Historic Preservation Seminars, Now - June 2012.** The National Preservation Institute will conduct a series of training seminars for professionals in management, development and historic, cultural and environmental preservation in many cities across the country. For more information, visit www.npi.org or email info@npi.org.

Society of Architectural Historians Annual Meeting & Exhibition, April **18-22**, **2012**. The Society of Architectural Historians will host its annual meeting at the Cobo Conference/Exhibition Center in Detroit, MI. For more information, visit www.sah.org.

**Traditional Building Conference Series, April 26-27, 2012.** This year's first Traditional Building Conference will be held at the Graylyn International Conference Center in Winston-Salem, NC. The theme of the two-day symposium is "Building Well: Traditional Design, Materials and Methods." For more information, go to www.traditionalbuildingshow. com.

**Wood Window Workshop, April 27, 2012.** Abatron is sponsoring a oneday workshop on wood restoration led by John Leeke and Neal Vogel. It will present the new National Window Preservation Standards, and will be held at the Kemper Center, Kenosha, WI. Call 800-445-1754.

**CNU 20 Conference, May 9-12, 2012.** The Congress for the New Urbanism will host its 20th annual conference in West Palm Beach, FL. The theme of the conference is "New World." For more information, visit www.cnu20.org.

AIA 2012 National Convention and Design Exposition, May 17-19, 2012. The AIA 2011 National Convention & Design Exposition will be held at the Walter E. Washington Convention Center in Washington, DC. For more information, visit www.aia.org. **Restoration Field School, May 20 - June 2, 2012.** Thomas Jefferson's Poplar Forest will conduct its 14-day intensive restoration program, Architectural Restoration Field School, at Forest, VA. For more information, visit www.poplarforest.org.

**ICAA Rome Painting & Drawing Tour, June 9-16, 2012.** Instructors at the ICAA will lead a painting and drawing tour in Rome. Participants at all levels will observe Classical architecture such as the Temple of Castor and Pollux. For more information, visit www.classicist.org.

**SGAA Annual Summer Conference, June 11-13, 2012.** The Stained Glass Association of America's summer conference will be held in Kansas City, MO. "The Art of Glass" will feature a tour of medieval and contemporary stained-glass exhibits at the Nelson-Atkins Museum. For registration and conference updates, visit www.stainedglass.org/html/SGAAconference.htm.

**Traditional Building Conference, June 19-20, 2012.** Earn valuable learning units at Restore Media's conference in Denver, CO. For more information, go to www.traditionalbuildingshow.com.

**Traditional Building Conference, July 25-26, 2012.** Come to Boston, MA, to learn more about traditional architecture at Restore Media's third 2012 conference. For more information, go to www.traditionalbuildingshow.com.

International Preservation Trades Workshop & APT Conference, September 30 - October 3, 2012. The Preservation Trades Network and the Association for Preservation Technology International will host their 2012 annual conferences together at the Francis Marion Hotel in Charleston, SC. For more information, go to www.iptw.org or www.apti.org. TB

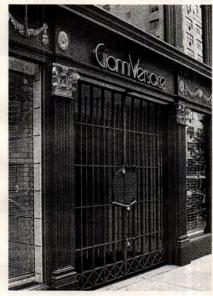
# **Storefronts & Façades**

To order product information from a company in this Sourcelist, go to www.traditional-building.com/rs and click on the appropriate reader service number.

#### Allegheny Restoration, Inc.

304-594-2570; Fax: 304-594-2810 www.alleghenyrestoration.com Morgantown, WV 26507 Manufacturer of reproduction & custom wood doors & windows: win-

dow replication, restoration & repair; hardware replacement; storefronts & ecclesiastical projects. **Click on No. 1004** 



This monumental gate and storefront was fabricated by Historical Arts & Casting for a Gianni Versace store 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. **Click on No. 1210** 

#### 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. **Click on No. 1998** 



Robinson Iron cast and fabricated this new storefront façade in aluminum to match the surrounding historic neighborhood in Washington, DC.

**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, cupolas, cresting, street lighting & gazebos; wrought iron/steel, aluminum, bronze & cast iron; historical restoration. **Click on No. 3240** 

### Schiff Architectural Detail, LLC 617-887-0202; Fax: 617-887-0127

www.schiffarchitecturaldetail.com Chelsea, MA 02150

Custom fabricator of metalwork: exterior lamps, lampposts, plaques, fences, fountains, sculpture, gazebos, planters, interior & exterior railings & grilles, domes, finials; non-ferrous forged work; machine-shop service; rubber molding & pattern work; capitals; windows, doors & door hardware; mantels, fans, fireplace tools; historical restoration.

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# **Exterior Lighting**

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#### **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. **Click on No. 60** 

#### **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.

Click on No. 7660



This wall-mounted lantern from Ball & Ball Lighting comes in two standard sizes: 13x27 in. and 9x22 in.

#### **Bevolo Gas & Electric Lights**

504-522-9485; Fax: 504-522-5563 www.bevolo.com New Orleans, LA 70130 Manufacturer & distributor of lighting

fixtures: hand riveted, antique copper, natural gas, propane & electric; residential, commercial, landscapes & streetscapes; custom scaling & style proposals. **Click on No. 166** 



The French Quarter lantern with a yoke hangar bracket is one of many models of historically styled lighting available from Bevolo.

#### **Crenshaw Lighting**

540-745-3900; Fax: 540-745-3911 www.crenshawlighting.com Floyd, VA 24091 Manufacturer of decorative lighting fixtures: period & custom designs; historical restoration & reproduction; lighting for worship. **Click on No. 313** 



This historic replica verdigris brass wall sconce was fabricated by Crenshaw Lighting for the University of Michigan Law School.

#### **Deep Landing Workshop**

877-778-4042; Fax: 410-778-4070 www.deeplandingworkshop.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. **Click on No. 809** 



Model L-1855-OC from Deep Landing Workshop is 20½-in. tall high from the bottom ball finial to the top of the 1¾-in. finial, while the overall height is 36 in.

#### Federalist, The

203-625-4727; Fax: 203-629-8775 www.thefederalistonline.com Greenwich, CT 06830 Manufacturer & supplier of 18thcentury style lighting fixtures: chandeliers, sconces, lanterns, bell-jar fixtures, table & floor lamps; exterior lanterns; antique, historic reproductions & custom lighting; electric & gas; mantels, fireplaces. **Click on No. 2833** 



This wall mount lantern by The Federalist was handmade and hand finished in brass.

#### **Fine Architectural Metalsmiths**

845-651-7550; Fax: 845-651-7857 www.iceforge.com Chester, NY 10918

Designer & custom fabricator of ornamental metalwork: periodappropriate motifs; custom lighting; curved, straight & monumental stairs; driveway & garden gates; grilles; hand forged & wrought iron, bronze & aluminum.

Click on No. 2640



These two wall-mounted lanterns were fabricated by Fine Architectural Metalsmiths.

#### Herwig Lighting

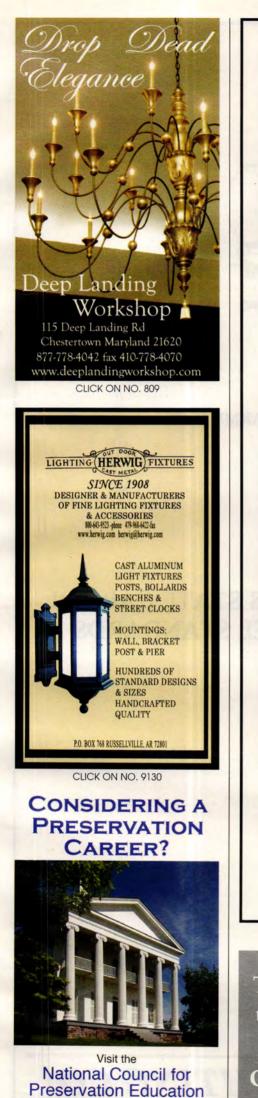
800-643-9523; Fax: 479-968-6422 www.herwig.com Russellville, AR 72811

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.

Click on No. 9130



This cast-aluminum sconce from Herwig, model #P-490, features the firm's #42 statuary bronze finish and crystal moss glass.



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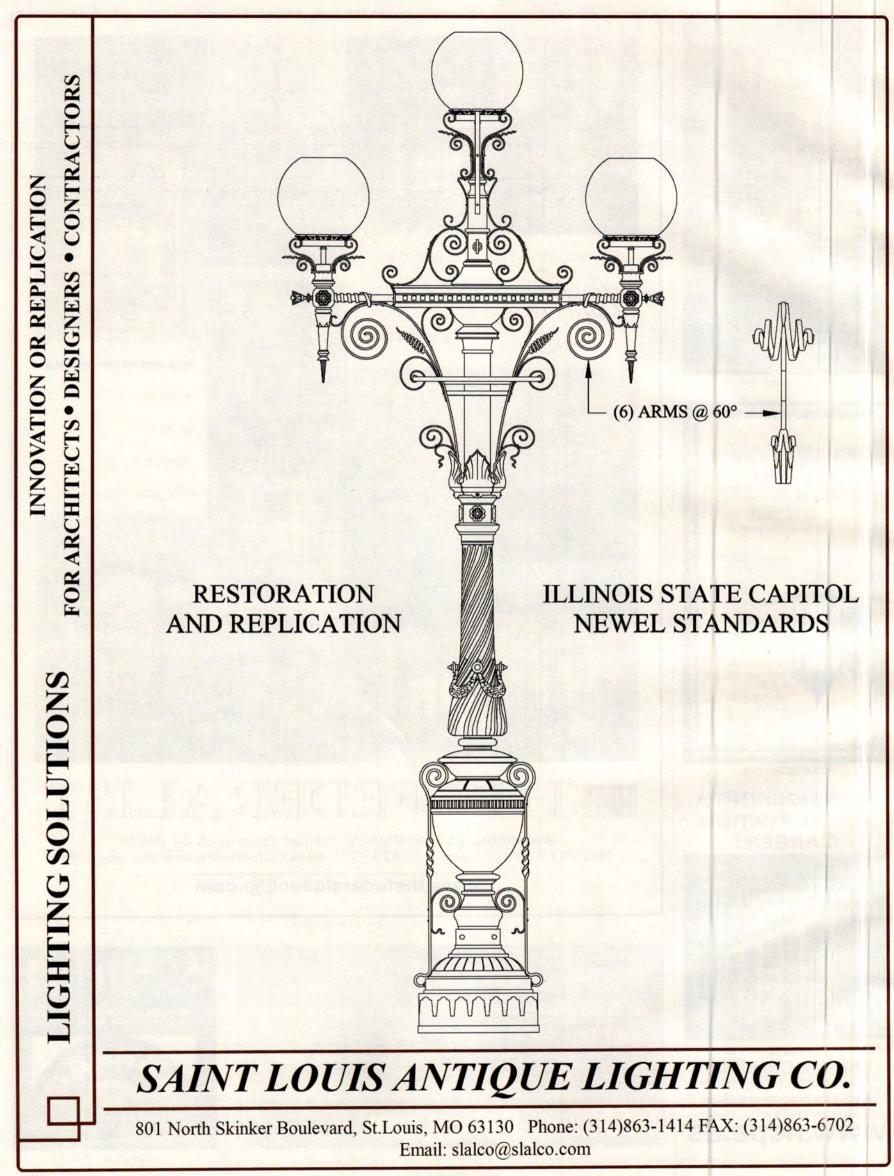
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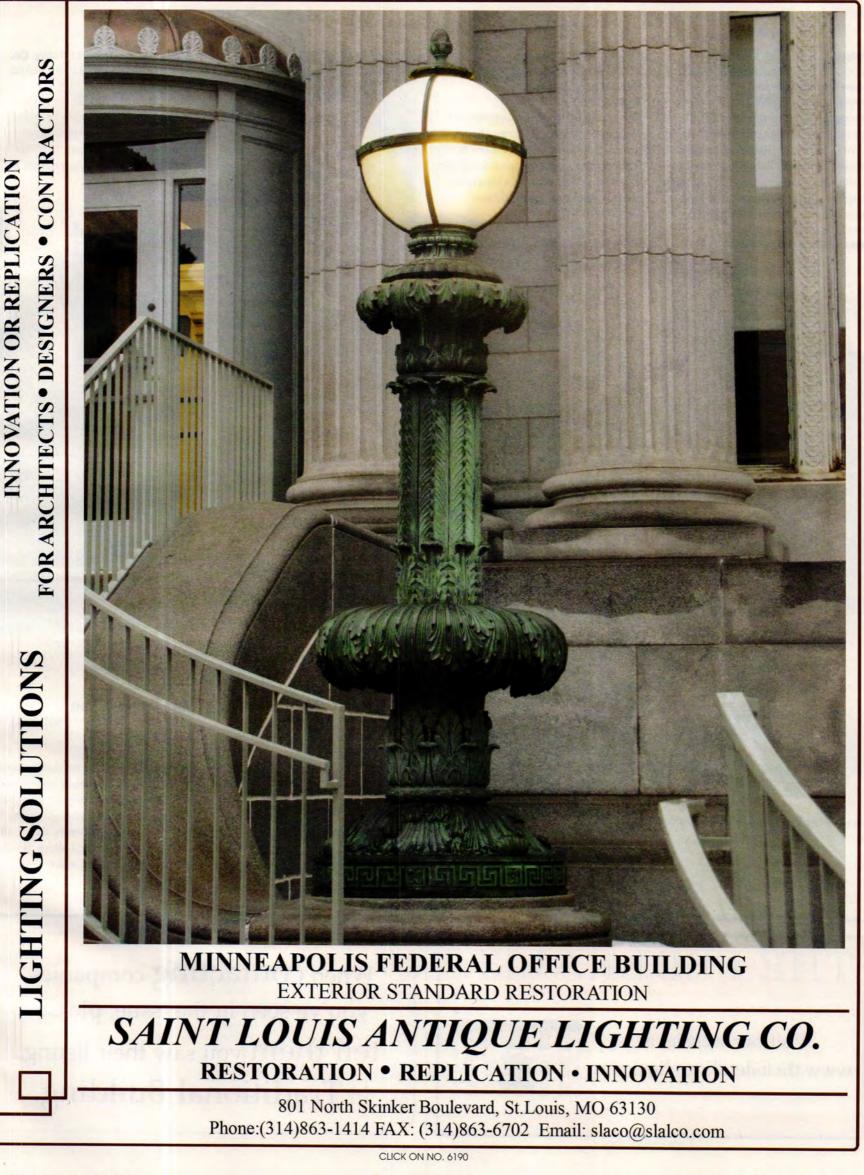
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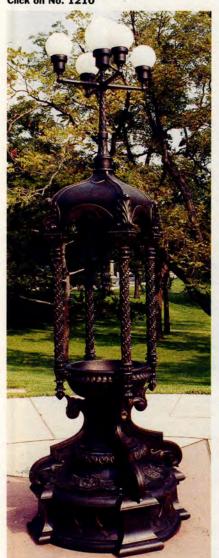
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#### EXTERIOR LIGHTING

#### 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. **Click on No. 1210** 



Historical Arts & Casting custom fabricated this five-globe ornamental light fixture.

#### Lantern Masters, Inc. 818-706-1990; Fax: 818-706-1988

www.lanternmasters.com Westlake Village, CA 91362 Custom designer & manufacturer of interior & exterior lighting: chandeliers, pendants, ceiling flushes & sconces; wall, pendant, post & pilaster exterior models; many architectural periods; historical reproductions. Click on No. 1239



This six-sided wall lantern is available from Lantern Masters.

#### **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, cupolas, cresting, street lighting & gazebos; wrought iron/steel, aluminum, bronze & cast iron; historical restoration. **Click on No. 3240** 



Robinson Iron supplied the custom lampposts as well as the street signs and mailboxes for a building development in Montgomery, AL.

Schiff Architectural Detail, LLC 617-887-0202; Fax: 617-887-0127 www.schiffarchitecturaldetail.com Chelsea, MA 02150

Custom fabricator of metalwork: exterior lamps, lampposts, plaques, fences, fountains, sculpture, gazebos, planters, interior & exterior railings & grilles, domes, finials; non-ferrous forged work; machine-shop service; rubber molding & pattern work; capitals; windows, doors & door hardware; mantels, fans, fireplace tools; historical restoration. **Click on No. 7730** 



These ca. 1920-1930 exterior bronze sconces were refurbished by Schiff Architectural Detail; they are 60 in. tall x 24 in. deep.

**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. **Click on No. 6190** 



St. Louis Antique Lighting supplied this historic fixture, the model CD-7718, for the University of Chicago.

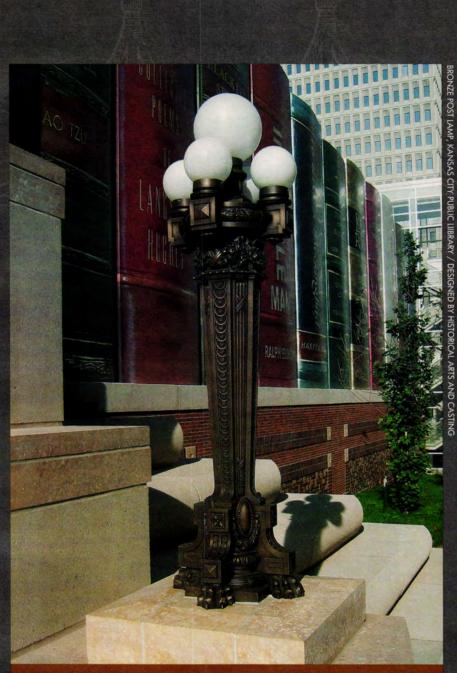
#### Wiemann Metalcraft

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, steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940. **Click on No. 1223** 

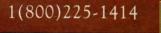


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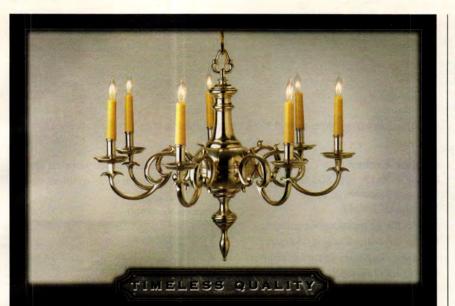
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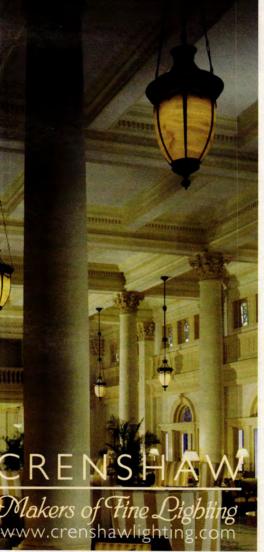
We have endeavored to develop craftsmanship and design skills to provide product customers will appreciate and we can be proud of.

Our work is a craft. Metal, glass, wood, acrylic, finishing and lamping are our mediums. Each project is an opportunity to explore and create.

Photograph: Spanish alabaster urn lantern with bronze frame for The Homestead Hot Springs, Virginia

Crenshaw Lighting Floyd, Virginia 540 745 3900

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# **Metal Roofing**

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#### **Baschnagel Brothers**

718-767-1919; Fax: 718-767-5141 www.baschnagel.com Whitestone, NY 11357

Manufacturer & installer of metal roofing: fabrication & installation of all types of ornamental copper gutters, leaders & more; metal repairs & restorations; slate roofing; cupolas; works with New York Landmarks Conservancy.



Copper Exclusive's metal roofing artisans restored the more-than-300fi.-tall steeple of a 300-yearold church in Hungary; the church had sustained bullet and shrapnel damage during WWII.

## Copper Exclusive

801-400-2515; Fax: 801-691-1175 www.copperexclusive.com Midvale, UT 84047 Fabricator of metal roof products: finials, cupolas, dormers, chimney caps, weathervanes & more; copper, zinc & stainless steel; sheet metal tools & classes.

### **Heather & Little Limited**

800-450-0659; Fax: 905-475-9764 www.heatherandlittle.com Markham, ON, Canada L3R OH1 Fabricator & supplier of historical sheet-metal roofing & specialty architectural sheet metal: finials, cornices, leader heads, cresting, metal shingles, pressed-metal siding, cupolas, steeples, domes, reproductions; capitals & balustrades; Kalemein & lot-line metal windows & doors.

Click on No. 2470



Heather & Little restored the copper roofing for Toronto's City Hall.

## 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, leadcoated copper, zinc & stainless steel; metal ceilings.



NIKO installed this batten-seam and flat-lock copper roof for an historic building.

#### **Ornametals**, LLC

256-255-0190; Fax: 256-255-0195 www.ornametals.com Cullman, AL 35058 Fabricator & distributor of metal roofing & roof ornament: finials, cupolas, crosses, weathervanes, gutters, leader boxes & more; exterior balustrades & cornices; copper & zinc.

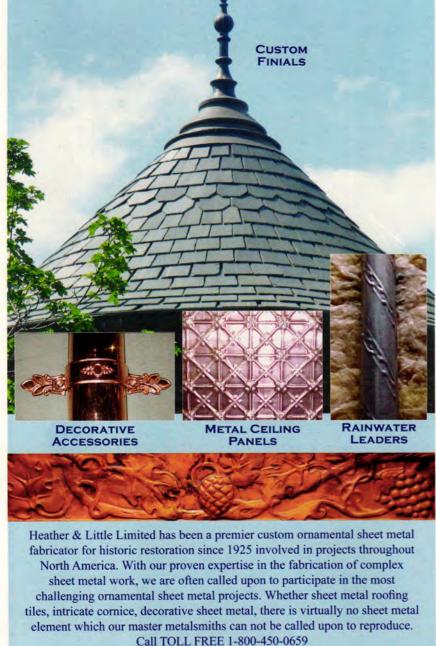


Ornamentals supplied the standing-seam gray zinc (VMZINC) roofing and rainwater system for the historic antebellum Cooper House in Huntsville, AL, when it was restored by the Central Presbyterian Church.



CLICK ON NO. 8300

## Heather & Little Limited SHEET METAL REPRODUCTIONS SINCE 1925



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# **Slate Roofing**

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TruSlate roofing from GAF combines traditional slate with a high-tech waterproofing material.

#### GAF

973-628-3000; Fax: 973-628-3865 www.gaf.com

## Wayne, NJ 07470 Manufacturer of roofing: Timberline fiberglass asphalt shingles with look of wood; TruSlate real slate roofing tile;

Designer Shingle collection with variety of styles replicating wood shakes, slate & tile.

Click on No. 1636 for Camelot, 9270 for Country Estates, 1534 for Grand Slate, 2222 for Slateline, 1959 for TruSlate

### InSpire Roofing Products

866-288-2726; Fax: 800-709-9109 www.inspireroofing.com Wixom, MI 48393

Supplier of roofing: 100% recyclable blend of limestone & synthetic resins; looks like slate; 6 profiles; Class A fire; Class 4 hail & 110 mph wind uplift ratings; transferable 50-year limited warranty.



InSpire Roofing offers seven standard, seven blended and 11 premium slate colors.

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.

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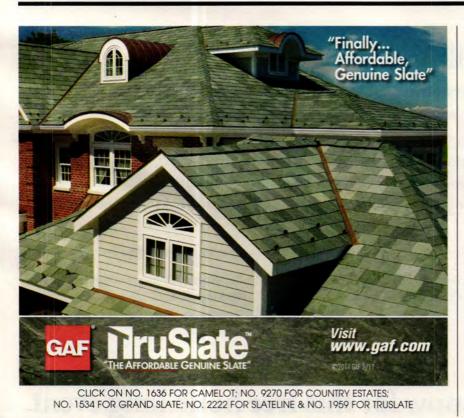
NIKO replaced the slate roof and sheathed the clock-tower dome in copper on the Hancock County Courthouse in Findlay, OH.



Vande Hey Raleigh supplied the charcoal-gray weather #2 black slate replica for the roof of this village hall in Ephraim, WI.

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.



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- Compare and contrast different orders, moldings, and arrangement of architectural millwork in American interiors.

Presenter: Brent Hull, founder and owner, the Brent Hull Companies, Forth Worth, Texas

**Moderator:** Judy L. Hayward, education director, Traditional Building Exhibition and Conference and Traditional Building Conference Series, Restore Media, LLC, Washington, D.C.

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### **Boston Valley Terra Cotta**

716-649-7490; Fax: 716-649-7688 www.bostonvalley.com Orchard Park, NY 14127 Supplier of architectural terra-cotta facade & roof tile products: for restoration & new construction.

### Gladding, McBean - Div. of Pacific Coast Bldg.

800-776-1133; Fax: 916-645-1723 www.gladdingmcbean.com Lincoln, CA 95648

Manufacturer of sculptural ornamentation, machine-extruded terra cotta, roof tile, chimney tops, finials, pavers & vitrified sewer pipes: terra-cotta balustrades, copings, cornices & more; custom-glaze development.



The roof tile for the restoration of St. Patrick's Catholic Church in Waukon, WI, features Ludowici's Spanish Tile in clay red.

Ludowici Roof Tile, Inc. 800-945-8453; Fax: 740-342-0025 www.ludowici.com New Lexington, OH 43764 Manufacturer of clay tile roofing: many patterns, finishes & colors; Imperial ceramic slate tile; good freeze/thaw properties; low moisture absorption; 75-year limited warranty; reclaimed tiles; restoration & new construction; flooring. **Click on No. 2760** 

#### 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.

Click on No. 8300

## Team Fritz Clay Roof Tiles, Inc. 250-768-1921; Fax: 250-768-1913

www.clayrooftiles.org West Kelowna, BC, Canada V4T 1Y7 Supplier of clay roof tile & accessories: Mediterranean, European & slate styles; interlocking flat tiles resemble slate & shake; 30 to 50-year warranties; clay wall cladding.

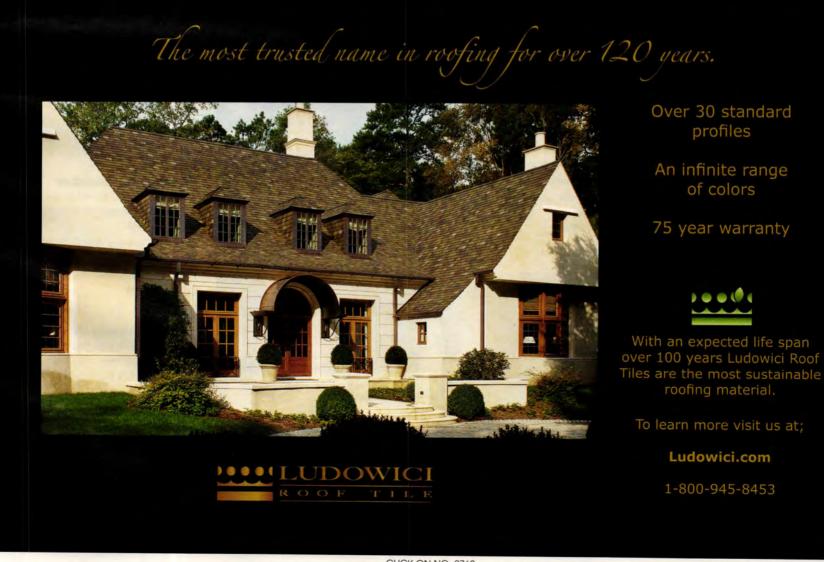
#### Tile Roofs, Inc.

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

Importer & distributor of handfinished 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.



Tile Roofs supplied the natural red Spanish tile and fittings for this tile roof restoration in New Orleans, LA.



CLICK ON NO. 2760

# **Roofing Specialties**

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631-842-4772; Fax: 631-842-4790 www.afcornice.com Copiague, NY 11726 Fabricator of molded fiberglass ornament: cornices, facades, cupolas, columns, capitals & balustrades; lightweight FRP; molded-in colors & textures; UBC code-compliant class-1 fire-retardant material; weather resistant; easy to install. **Click on No. 6400** 

## Architectural Products by Outwater, LLC

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### Edon Corp.

215-672-8050; Fax: 215-672-9014 www.edon.com Horsham, PA 19044

Manufacturer of fiberglass ornament: columns, moldings, cupolas, steeples, cornices, domes, balustrades, sculpture & statuary; historical replication; theme parks, hotels, churches, casinos & more.

Click on No. 2028

### GAF

973-628-3000; Fax: 973-628-3865 www.gaf.com Wayne, NJ 07470

Manufacturer of roofing: Timberline fiberglass asphalt shingles with look of wood; TruSlate real slate roofing tile; Designer Shingle collection with variety of styles replicating wood shakes, slate & tile.

Click on No. 1534; 1535 & more

## Heather & Little Limited

800-450-0659; Fax: 905-475-9764 www.heatherandlittle.com Markham, ON, Canada L3R OH1 Fabricator & supplier of historical sheet-metal roofing & specialty architectural sheet metal: finials, cornices, leader heads, cresting, metal shingles, pressed-metal siding, cupolas, steeples, domes, reproductions; capitals & balustrades; Kalemein & lot-line metal windows & doors. **Click on No. 2470** 



house, NY, were fabricated by Heather & Little.

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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.

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415-401-7745; Fax: 415-373-4498 www.huntstonecarving.com San Francisco, CA 94124 Full-service sculptural studio: figurative, ornamental & decorative carving & sculpture; restoration & conservation; ecclesiastical & monumental projects; custom maquettes; public art commissions.

Click on No. 2039



The dome of the New York City Center was originally finished in Ludowici Roof Tile in 1923; it was restored with roof tile from the same company in 2004.

## Ludowici Roof Tile, Inc.

800-945-8453; Fax: 740-342-0025 www.ludowici.com New Lexington, OH 43764 Manufacturer of clay tile roofing: many patterns, finishes & colors; Imperial ceramic slate tile; good freeze/thaw properties; low moisture absorption; 75-year limited warranty; reclaimed tiles; restoration & new construction; flooring. **Click on No. 2760** 

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& stainless steel; metal ceilings. Click on No. 8300



This custom copper finial was fabricated by NIKO Contracting.

#### Schiff Architectural Detail, LLC 617-887-0202; Fax: 617-887-0127 www.schiffarchitecturaldetail.com Chelsea. MA 02150

Custom fabricator of metalwork: exterior lamps, lampposts, plaques, fences, fountains, sculpture, gazebos, planters, interior & exterior railings & grilles, domes, finials; non-ferrous forged work; machine-shop service; rubber molding & pattern work; capitals; windows, doors & door hardware; mantels, fans, fireplace tools; historical restoration. **Click on No. 7730** 

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800-766-5291; Fax: 717-697-2452 www.snoblox-snojax.com Mechanicsburg, PA 17055 Supplier of 6 models of polycarbonate snow guards: all feature large, forward-mounted faces to help prevent the movement of snow & ice on metal roofs; vent protection. **Click on No. 1758** 



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#### Weathervane Sculpture

413-564-6027; Fax: 413-564-6028 www.weathervanesculpture.com Westfield, MA

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# **Masonry Restoration & Cleaning**

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#### Abatron, Inc.

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

Manufacturer of products for restoration & repair: wood consolidation & repair, door restoration, concrete patching & resurfacing, metal restoration, moldmaking & casting, structural adhesives, protective coatings, strippers & related products. **Click on No. 1300** 



Masonry restoration products are specialties of Abatron, which also offers consultation services.

ArmaKleen Co. 800-332-5424; Fax: 609-497-7176 www.armex.com Princeton, NJ 08543 Manufacturer of ARMEX blast media: baking-soda-based abrasives & tools for cleaning & paint removal without damaging most substrates; for stone, brick, wood, metal, glass & composites.



ArmaKleen manufactures Armex blast media, a baking-soda-based abrasive for gently cleaning brick and other substrates.

#### Cintec North America

800-363-6066; Fax: 800-461-1862 www.cintec.com

Nepean, ON, Canada K2E 8A5 Manufacturer of anchoring systems for masonry & terra cotta: fireproof, cement based & custom tailored to each application; used on many historic landmark buildings in North America & Europe; chimney repair.



Specializing in building reinforcements, Cintec North America has developed an anchor system that is installed entirely within the fabric of the structure, leaving no visible change to its appearance.

#### **Diedrich Technologies, Inc.**

800-323-3565; Fax: 414-764-6993 www.diedrichtechnologies.com Oak Creek, WI 53154 Manufacturer of masonry-restoration cleaners, water-repellent sealers & paint



This building on the Milwaukee River has been partially cleaned with 101 Masonry Restorer from Diedrich Technologies.

removers: interior & exterior applications; ENVIRESTORE 100, a safer restoration cleaner that retains patina.

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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.

Click on No. 1058



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Abocrete can be used to replace missing concrete.

# **Natural Building Stone**

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The Belden Brick Co. designed this relief of a dove carrying an olive branch.

Belden Brick Co., The 330-456-0031; No fax www.beldenbrick.com Canton, OH 44702 Manufacturer of brick: variety of colors, textures, sizes & stock & custom shapes; color matching; jack arches,

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Reclaimed clinker bricks supplied by Gavin Historical Bricks were used to create these steps and walkway.

**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. Click on No. 8079

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508-278-7007; Fax: 508-278-7014 www.newworldstoneworks.com Uxbridge, MA 01569 Supplier of natural stone: matches historic stone; photographs of existing stonework, extracts pattern & delivers complete hand-chiseled job. Click on No. 2026

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800-281-9615; Fax: 905-332-6068 www.oldworldstone.com Burlington, ON, Canada L7L 4Y1 Supplier of dimensional-cut limestone & sandstone: columns, sculpture, mantels, architectural ornament, signage & garden ornament for new & restoration projects.



Old World Stone supplied the stonework for the Cathedral of the Immaculate Conception in Albany, NY.

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## BOOK REVIEW

## Preservation Standards

## Architectural Conservation in Europe and the Americas

by John Stubbs and Emily G. Makas John Wiley & Sons, Inc., Hoboken, NJ; 2011 729 pp; hardcover; numerous b&w photos; \$110 ISBN 978-0-60385-7

## Reviewed by Raymond Pepi

reserving historic buildings may seem like a modern idea but is, in fact, a centuries old practice. Pope Martin V issued a decree in 1425 for the repair, maintenance and preservation of Roman bridges, gates, walls and buildings. Subsequent popes and monarchs initiated their own protective measures, but rules were inconsistent, enforcement wavered, and each initiative was subject to the lifespan of the ruler.

Today preservation is vigorously practiced around the world reflecting widely accepted standards. And many countries have enacted laws that survive political administrations. What was, in the past, left to chance or the whim of individual rulers is now part of governing machinery, systematized and instituted for public benefit and mass consumption.

Whether preservation stems from enlightened leadership, popular or academic interest, world heritage affects design, real estate development, and is big business because of tourism, so an understanding of how individual countries deal with their heritage should be of wide concern. In an attempt to document the status of preservation across national borders John Stubbs and Emily Makas have written *Architectural Conservation in Europe and the Americas, National Experiences and Practice*, a compendium of the heritage policy of roughly 90 countries and the second of a three-volume opus. The authors' previous volume, titled *Time Honored: A Global View of Architectural Conservation; Parameters, Theory & Evolution of an Ethos* was published in 2009 and there are plans to publish a third volume covering the remainder of the world: Asia, Africa, Oceania, and the polar habitats.

Even countries that have little else in common now share standards used to measure historic and architectural significance and appropriate care. As codified doctrine, these standards transcend geopolitical and cultural boundaries. Consensus across borders is one of the most remarkable and overlooked attributes of the preservation movement.

Stubbs and Lukas prefer the term "architectural conservation" to heritage conservation or historic preservation, so it is worth noting that their book is not a manual about conserving materials. There are, in fact, technical books with similar titles, notably: A History of Architectural Conservation, by Jukka Jokilehto, (Butterworth Heinemann, 1999) where the emphasis is conservation treatment rather than public policy. Unfortunately this important distinction is glossed over, so the authors' point of view is sometimes not obvious. Not surprisingly Architectural Conservation contains professional jargon, but there is no glossary, so if you seek a definition you must consult their first volume, Time Honored! I didn't consult that book to find out what "high conservation science" was.

The book is organized by country, roughly 90 nations grouped into six regions: Europe, North America, Mexico, the Caribbean, and Central and South America. If you are interested in the heritage policy of Albania, Azerbaijan, Malta, Belize, Cuba, Eleuthera, Panama, Guyana, Suriname, Uruguay you will not be disappointed. Highlighted sections (several penned by expert contributors) are devoted to key topics such as sustainability. The result is a combination history and cultural policy for half the world.

In light of preservation's tremendous impact, Stubbs and Makas stress the daunting problems facing workers in regions decimated by war, as in Chechnya, or where religious sites like the destroyed Bamlyan Buddhas in central Afghanistan are targets of religious or cultural terrorism. Nonetheless, historic sites still get saved and the story of how this has happened – and is happening – during times of peace or war over the last several centuries is compelling.

Without the influence of now widely accepted standards such as the Venice Charter, adopted by the international community in 1964,



Stone watch towers from the 10th to the 15th centuries in war-ravaged Grozny, Chechnya, were damaged in recent conflicts and are in need of conservation.

to increasing density, but such improvements had the direct effect of razing untold numbers of historic buildings. To counteract this trend we are reminded that the first protective law in Italy was the 1902 Monument Act.

early restorers used their own

judgment to make treatment

choices. Structural repair to

the Coliseum by Rafael Stern and Giuseppe Camporesi in

the early-19th century was, we

are reminded, the "first great architectural conservation project...in Italy," while "Giuseppe

Valadier's program for the res-

toration of the Arch of Titus

in 1821 incorporated modern

principles of materials conserva-

tion." The underlying techni-

cal details of these pioneering

projects are beyond the scope of

this book, but readers can find

more information by following

sures countered the moderniza-

tion of European cities. Public

works projects like the widening

of roads were a logical response

Nationalized protective mea-

the citations.

An astonishing range of heritage types is documented, from the megalithic moai of Easter Island to the topiaries of Wales. The authors report on the statutory status of not just buildings but also archeological sites, monuments, industrial sites, landscapes and maritime heritage. The broad outlines of western heritage policy may be familiar since there is a recognizable pattern in nearly every country, beginning with loss of important sites, followed by critical reaction, the identification of threatened resources, surveys, inventories, preservation plans, lobbying, landmark recognition and legal protection.

Architectural Conservation is available in digital form. Its size really lends itself to software that can quickly locate obscure information and that reformats large pages of text and illustrations onto handheld devices like a Kindle or an iPhone. Having the ability to hyperlink from citation to web link is, in my opinion, the most productive way to use this book. The website for the *Time Honored* series is largely promotional, but has the potential for posting of future updates: http://conservebuiltworld.com.

It is no small achievement that all 36 chapters maintain a consistent pace and level of detail, especially when you consider the heroic effort of researching and describing so many countries, but it reads like a textbook. Each chapter is supplemented with endnotes and there is a reading list for each region.

Architectural Conservation is comprehensive, but not exhaustive, which is understandable given its geographic scope. It is a summary report, not an operational manual. There is little critical discourse; the assumption is that preservation is inherently good and protection is its own reward, a belief that is never questioned.

The book opens with a concise but far-reaching contribution from Frank Matero on the relevancy (currency) of heritage conservation in the modern world. However, I was not at all certain I found a satisfactory answer to this profound question. On the other hand, the authors have succeeded in documenting preservation movements in a large part of the world. Assuming there are periodic updates to keep it current, *Architectural Conservation* will be an important reference work for years to come. **TB** 

Raymond Pepi is president of Building Conservation Associates, Inc., New York, NY.

Web Extra: Additional photos can be seen at www.traditional-building. com/extras/April12RevPepi.htm.

## BOOK REVIEW

## The Perfect Storm

## **Designing Healthy Communities**

by Richard J. Jackson with Stacy Sinclair John Wiley & Sons, Inc., San Francisco, CA; 2011 304pp; hardcover; 60 b&w and 27 color photos; \$50 ISBN 978-1-118-03366-1

#### Reviewed by Annabel Hsin

A merica is facing a number of threats involving health, the environment and the economy. Today, one in three American children is overweight or obese, which raises their risks of heart disease, stroke and, in particular, diabetes. The obesity epidemic is prematurely aging the population and has decreased the quality of life for many, to the point that antidepressants are the second most prescribed medication in this country.

Contributing to the health crisis is carbon dioxide retention in the atmosphere, caused by deforestation and the burning of fossil fuels. At the same time, resources are becoming expensive and difficult to extract; thereby, increasing our spending on gasoline and items that require transportation. Additionally, medical care now accounts for 17 percent of spending. Increased spending is coupled with the fact that real income has remained the same since the 1980s – excluding that of the top 20 percent of the population.

In his new book, *Designing Healthy Communities*, Dr. Richard Jackson, former California State Health Officer and co-author of *Urban Sprawl and Public Health* and *Making Healthy Places*, calls the three threats a "perfect storm." He argues that piece-meal solutions will not solve these issues and that the root cause of the problems is that Americans "remain servants of the automobile."

In the prologue, Jackson tells the story of a hypothetical ten-year-old boy identified as overweight. His doctor tells him to change his eating habits and exercise. Two months later, the boy's weight remains the same. The reason is simple: He has few opportunities to exercise outside of his gym class at school because he lives in a car-oriented development where there are no bike paths or sidewalks. Jackson believes that the solution to our health, economic and environmental problems starts with sensible urban planning geared towards pedestrian-oriented built environments.



This planned community in Atlanta, GA, isolates non-driving individuals because there are no markets, school facilities or parks within walking distance; even a visit to neighbors on the opposite side of the development would require a car.

This three-part book is intended as a companion to a television series of the same name, but it stands alone as well. Part one consists of three chapters devoted to establishing the connection between health and the built environment. It identifies the characteristics of a healthy community and examines how the built environment affects community structures. Part two contains seven case studies of communities working to transform themselves into healthy physical environments; these include an abandoned shopping mall in the Belmar district of Lakewood, CO, downtown Charleston, SC, and the automobile capital, Detroit, MI. The last part is organized as a guide to help readers start transformation movements in their own communities.

A portfolio at the center of the book features photography with detailed captions. These were taken during production of the television series and depict not only examples of architectural tools that promote healthy lifestyles, such as town squares, parks and fountains, but also how the automobile affects non-drivers.

Each case study examines the location and provides a diagnosis, cure and prevention plan. Boulder, CO, is labeled as the leanest city in the leanest state in the country. In the 1960s, when the popularity of cars raised concerns, the city

responded by enacting an open space ordinance that taxed its citizens in order to purchase thousands of acres of surrounding land that remain undeveloped. The goal was to protect the natural landscape of the region, which was then used for miles of trails and bike paths for people to enjoy the outdoors.

By the late 1970s, the potential for bicycling as a form of mass transit took hold of city planning. Today, there are nearly 200 miles of bike paths and lanes – on a good weather day up to 30 percent of Boulder's population cycles. City planners continue to include bike lanes alongside new roadways and are equally conscious of both bike and motor traffic patterns.

From the start, Jackson's goal is clear, "For too long we have had doctors talking only to doctors, and urban planners, architects, and builders talking only to themselves. The point is that all of us, including those in public health, have got to get out of the silos we have created, and we have got to connect – actually talk to each other *before* and *while* we do our work – because there is no other way we can create the environment we want." *Designing Healthy Communities* goes a long way toward getting the word out. The book would be of interest to urban planning professionals and to the general public – showing them that anyone can make a difference. **TB** 



Neighborhood parks, such as Central Park in New York City, allow people to exercise and enjoy fresh air, while also raising the market value of nearby properties.

# Arthur Ross Awards

The Institute of Classical Architecture & Art (ICAA) has announced the 2012 Arthur Ross Awards for excellence in the Classical tradition. This year, honorees were named in five categories: architecture, artisanship, history/journalism, stewardship, landscape design, in addition to a Board of Directors Honor.

The 2012 jury included Kathryn Herman, chair; Donald Albrecht; William H. Bates III; Dara Caponigro; Adele Chatfield-Taylor; Robin Karson; Peter Pennoyer; R. Douglass Rice and Jean Wiart. "Lively discussion among the jurors, coming as they did from far and wide, like the Institute itself, assured a fine roster of Ross Award recipients in this important anniversary year," said Herman.

"The annual Arthur Ross Awards gathering reminds one and all of the unique value of what we do in education for students, practitioners, and appreciative public alike," said ICAA president Paul Gunther. "It's a chance too to connect with those in so many related fields who can stand on his shoulders today." The awards will be presented on May 7 at the University Club in New York City. For more information, go www.classicist.org. The 2012 winners are:

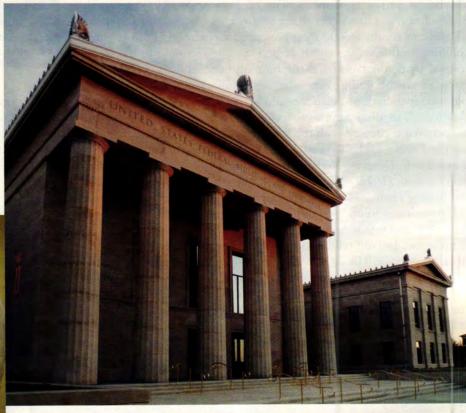
## Architecture

Hammond Beeby Rupert and Ainge Architects (HBRA) of Chicago was cited for its civic and residential commissions that 'demonstrate sensitivity to context, technical expertise and creative artistry.' HBRA is also a 2012 Palladio winner.

## HBRA designed the new Tuscaloosa Federal Building (right) and Courthouse in Tuscaloosa, AL.

HBRA leadership: Thomas Beeby, Chairman Emeritus, (seated); principals, standing left to right; Craig Brandt, Michele Silvetti-Schmitt, Aric Lasher, Dennis Rupert, and Gary Ainge. Photos: courtesy of HBRA

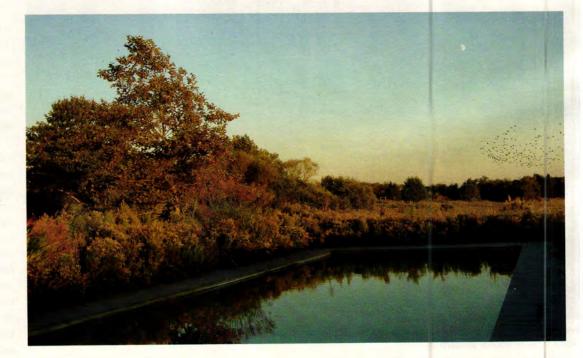




## Landscape Design

The ICAA cited Edwina von Gal of East Hampton, NY, "whose compelling designs tread lightly and knowingly on the land in unexpected and imaginative ways."

To preserve the feeling of the old fields of Long Island, von Gal inserted the pool and deck and then transplanted clumps of the meadow into the disturbed areas.

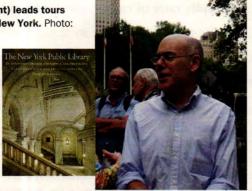


## History/Journalism

Francis Morrone of Brooklyn, NY, is a historian, raconteur and teacher. "He has displayed an extraordinary knowledge of New York and beyond through his books, essays, tours and lectures," the ICAA states.

Francis Morrone (right) leads tours throughout historic New York. Photo: Elsa Solender

Morrone was the co-author, with Henry Hope Reed, of The New York Public Library. (W.W. Norton, 2011)



## Board of Directors Honor

Marc Appleton, Santa Monica, CA, is an architect, author, teacher and ICAA trustee emeritus. The ICAA noted that his "visionary leadership spawned and nurtured the advent of

ICAA chapters across the country, beginning in Southern California."

Marc Appleton, Appleton & Associates, Santa Monica, CA.

Photo: courtesy of Appleton & Associates

The work of Appleton & Associates is featured in this book, New Classicists (Images Publishing Group, 2008).



## Stewardship

The U.S. Commission of Fine Arts, Washington, DC, has been a "careful guardian of the artistic, architectural and urban design in our nation's capital for more than a century."

The terra-cotta seal of the U.S. Commission of Fine Arts, the commission at work (right). Photos: Carol Clayton Photography, courtesy of the U.S. Commission of Fine Arts





## Artisanship

The ICAA selected Rhett Butler of E.R. Butler & Co., New York, NY, noting that he is a "meticulous craftsman and exacting scientist who has set an unparalleled standard for hardware excellence in the 21<sup>st</sup> century."

Rhett Butler, E.R. Butler & Co. Photo: Elle Muliarchyk

E.R. Butler created the hardware for the front door of the Tweed Courthouse in New York City. Photo: Lauren Coleman



## The "Modern" Genius of Traditional Urbanism

## By Michael Mehaffy

The data from the research is striking. In European city after city, per-capita rates of carbon emissions and other consumption of resources is dramatically lower than in other places. Yet the people who live in these places are hardly suffering from a lower standard of living. In fact, on many metrics of income as well as quality of life – health, longevity and other indicators – they are as good as, and often better than, places that use far more resources per capita.

So what's going on? We can readily see part of the story: urban Europeans tend to live in higher-density settlements, which means they use less energy to get around. On average, they live in smaller spaces, which require less energy to heat and cool. These places also have more opportunities for economies like district energy, which allow the re-use of waste heat.

But this only explains part of the story. It seems that people in these settlements also consume resources in a different pattern – and by doing so, they manage to get a lot more quality out of a lot less quantity. This does not seem to be a matter of national character, or government policy, or any of the other common explanations for these kinds of variations. It seems more related to the particular way that spaces are connected within these cities.

This spatial pattern of connections was a topic of keen interest to the great urban scholar Jane Jacobs. She asked what, if anything, that pattern had to do with the economic vitality of cities. She hypothesized that cities do, through their network of proximities, allow "spillovers" of knowledge and ideas, which in turn create powerful economic synergies. Today these "Jacobs spillovers" are an active area of research in economics. It seems very likely that something similar occurs with

resources: thanks to the network of urban proximity, I can "spill over" the resources from one activity into another, and get multiple synergetic benefits. I take a walk, and along the way, detour for groceries, get some exercise, run into a friend, share an idea, and even help to keep the street safe by my presence. If I were living in more fragmented, "drive through" urbanism, those activities might require separate trips to the grocery, gym, your house – and perhaps even a bit of money to pay for private security.

Note that these synergetic benefits are only possible when

## It's time to put the genius of traditional cities and towns back to work for humanity.

we use space in a particular way. Instead of neatly segregating space into zones of use, like "modern" planning has done, the various urban spaces are woven into a dense overlapping network of connections across many scales. The network has at its heart an intimate filigree of pedestrian pathways by which most people get around for most things (including walking to the transit stop, or even the car parking lot).

This network structure turns out to be a very complex system – and it doesn't stop with the main pedestrian routes: it connects up to larger scales (big parks and public spaces) and down to finer ones (porches, gardens, rooms of a house, even building details). At many scales it includes a series of room-like nodes that serve to define the space, and control our degree of privacy versus publicness (doors, gates, windows, blinds, etc). There are also implied rules (and sometimes formal ones) governing who is allowed to be in a space, and when.

This complex structure has a marvelous capacity to mediate

our conflicts with one another, and help us to get the most out of our urban environment. As we walk around, we are informed by rich layers of information about the spaces and what they might hold for us, in details small and large: the colorful fruit at the vegetable stand, the grand entrance to the library, the cozy park bench sited in just the right place for people-watching.

Even more remarkably, the whole structure is evolving and self-organizing in time, adapting in response to user needs. Just as we can take a detour to grab some vegetables for dinner, or draw our blinds to control sunlight and privacy – so other parts of the system can organize from bottom-up agents, and gradually change the larger character of the system (e.g. many cafe owners can add tables, transforming a street). That's selforganization at work, and it happens in the short span of my detour, or the very long span of the growth of a city.

This is where traditional urbanism comes in – which in this sense is nothing other than the refinement and passing down of successful solutions to the age-old challenges of living well. Traditional urbanism conveys the patterns by which we may generate more of these rich layers of well-adapted connections, by creating and sharing a kind of "DNA of place."

So why aren't we promoting more traditional urbanism? Why don't we see a renaissance of this kind of high-quality, resource-conserving city-making? To put it simply but accurately, we have the wrong models, set up with all the wrong incentives. We have the wrong "operating system."

What's more, there is a lingering refusal by some influential architects to help change this situation – borne of a stubborn fixation on industrially styled objects, and hostility to the regeneration of effective traditional patterns, lest we be labeled "unimaginative." But this in itself may be the ultimate example of failed imagination.

The fact is, most of the models we have for urban structure (and "Modernist" design) are holdovers from a primitive industrial era when neat separation was king. In that thinking, there was no urban problem that couldn't be solved by separation. Overcrowding? Disperse to the countryside! Pollution from factories? Separate work

from home! Pollution and danger from cars? Separate buildings from the street!

Unfortunately, we have devolved to a pattern of runaway sprawl, and now, runaway resource use. The ecological problems are inevitably becoming economic ones too.

In response, many Modernist architects have proposed that the old regime can be salvaged with new bolt-on "green" technologies. But that is just not going to work. We have to get past the ideology of separated object-buildings (of whatever style) and begin the regeneration of these tissues of urban connection.

And we will need to use the (adaptable) language of traditional forms, precisely because it has evolved to contain this generative, human-adaptive, self-organizing capacity. **TB** 

Michael Mehaffy is the chair of the USA chapter of INTBAU, and executive director of the Sustasis Foundation. He is a former resident of fantastic traditional cities in the UK, Norway and Italy.

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