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Photo courtesy of Walker Zangei

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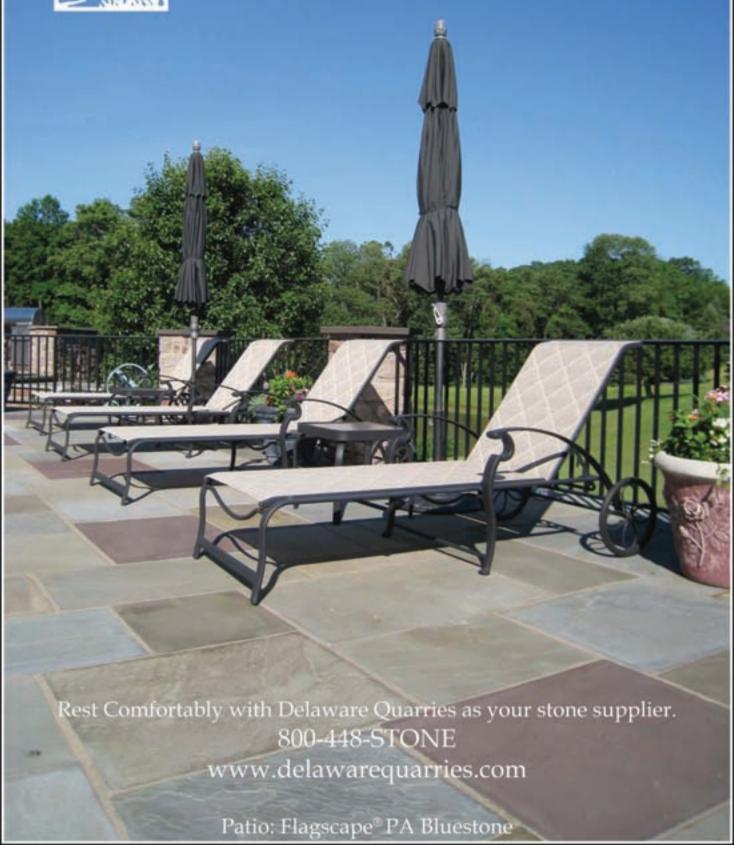
An interior design project's inspiration can come from virtually any source - a work of art or an eye-catching stone. In some cases, it's the home itself that inspires the design, from its architecture to the land on which it's built.

Photo courtesy of Cold Spring Granite



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# Summer 2008

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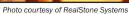




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## Highlighting a Variety of Natural Stone

N HONOR OF OUR ELECTION YEAR, , in this issue we spotlight a few of the U.S. Presidential Libraries. Regardless of varying political opinions, I'm sure we all agree that these buildings are individually and collectively a tribute not only to the men they honor, but also to the beauty, sustainability, practicality, functionality and elegance of natural stone. President Franklin D. Roosevelt, on the advice of prominent historians and public figures, devised this library concept for preserving presidential files as well as private papers, book collections and memorabilia. Each historical property is as unique as the man it memorializes. In much the same way, natural stone captures the historic beauty that is found domestically and internationally allowing architects, designers and builders to achieve bold and matchless looks.

Throughout these pages you will find information on just some of the variety of natural stone available today. I invite you to pay special attention to the article on thin veneer and the supplement on its application included in this issue. Please contact the BSI if you wish to receive reprints of the supplement.

Also of note is this month's "Chronicles in Stone," which highlights The Jefferson Hotel in Richmond, Va. – site of the 2008 BSI Study Tour, Sept. 14 - 17. I invite you to visit www.buildingstoneinstitute.org for details on this event, which includes some AIA approved programs.

I hope that with the articles we've included here, we can spark your imagination and transfer to you some of the passion we feel for natural stone. If you are interested in learning more about the benefits of utilizing natural stone, we invite you to visit our Web site at www.buildingstoneinstitute.org. Here you can learn more about our support of our members' efforts to continually increase the quality of service, quality of products and demand for natural stone. And, as always, should you have questions about our programs, products and services, or for technical expertise regarding any aspect of composition, application or installation of natural stone please feel free to contact our office at 1-866-STONE13 (847-695-0170) and we will do our best to address your issues. •



Palester Barden

#### Bob Barden

2008 President, Building Stone Institute Barden Stone Inc. Memphis, Tenn.

#### BUILDING STONE MAGAZINE WANTS TO HEAR FROM YOU!

Have you recently worked on a natural stone project you think our readers should know about? We would like to hear about it and view your high-resolution images. Is there a topic you would like to us cover in a future issue? Send information about your spectacular projects or article ideas to Editor Brooke Schmidt at brooke@lionhrtpub.com.



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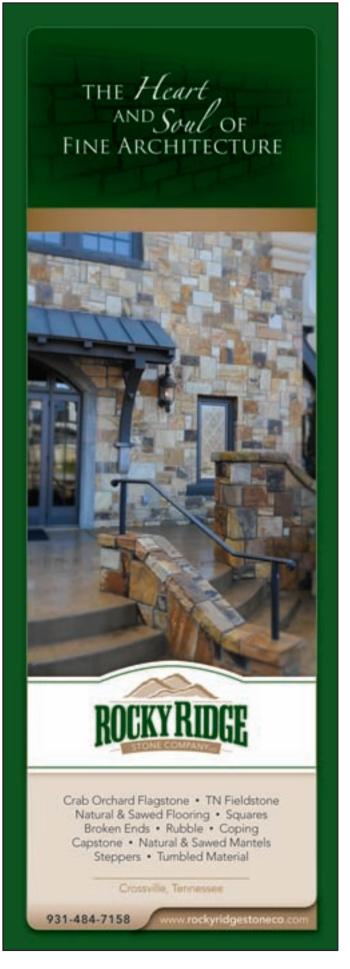
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NATURAL STONE ADDS DYNAMIC ELEMENTS TO INTERIORS

# Inspired by Design

By Jennifer Maciejewski

HILE SOME HOMEOWN-ERS GIVE each room of their

ERS GIVE each room of their home a distinctive look and feel, others take a thematic approach to interior design, pulling together several elements throughout the project to create a unified effect. And, just as the couple in the Kohler ad challenged the architect to design their home around a faucet, the project's inspiration can come from virtually any source - a work of art, the family pet or an eye-catching stone.

In some cases, it's the home itself that inspires the interior design, from its architecture to the land on which it's built.

#### Jamestown, R.I.

Greyledge, a six-bedroom private residence in Jamestown, R.I., goes to the greys, says homeowner Susan Little – hence the name. While the exterior features Atlantic Blue granite, Indiana buff limestone and South Bay quartzite as well as Vermont slate on the roof, both the color scheme and the materials influ-

enced the design of the home's interior.

"Our home is fashioned after Sir Edwin Lutyens' English country manor style, where you take the surroundings and the building into consideration so that it flows together," Little says. To achieve that effect, Little incorporated indigenous stones into many aspects of Greyledge's exterior and landscape design and then brought some of those outside elements into the interior of the home.

OPPOSITE LEFT: At this Las Vegas residence, a Calacata Carrara marble countertop holds up to a homeowner who ejnoys cooking.

BELOW: This master bathroom tub deck features walls and base of Statuario Carrara marble supplied by Euromarble S R L, Carrara, Italy. The entire design centers on its black and white Walker Zanger basketweave floor.



ito courtesy of Ken Lopardo Photography



LEFT: The wine cellar's vaulted brick ceiling and Carnelian granite counters are a stunning addition to the natural stone throughout this Rhode Island home.



For instance, the South Bay quartzite prominently used on Greyledge's exterior flows first into the home's sunroom, which features window seats fashioned out of the stone, and then into the kitchen, where the material resurfaces to create the fireplace. A raised hearth is made from polished granite.

The rest of the kitchen draws its influence from an Iznik tile mural that serves as the stove's backsplash. Breaking from the home's grey theme, the mural features a Tree of Life, with vibrant red apples and green leaves, as well as a bold-colored peacock, a symbol of good fortune, and snails, for luck.

Since she did not want a red or green kitchen, Little opted to use the Brazilian granite Amazon Star for the countertops. With its large, brown grain pattern and blue-hued quartz, the Amazon Star complements the mural's bright colors without overpowering the design or creating a red or green space.

"Picking stone is a process," Little says. "I went in with an idea of what I wanted, and I can tell you that 90 percent of the time, I didn't use it because it didn't work. Every room is driven off of something that I liked."

For instance, the first-floor master bathroom's design centers on its black and white Walker Zanger basketweave floor. Instead of carrying the basketweave to the edges of the room, Little used a

Negro Marquina honed like the basketweave to create a border. Not only does the Negro Marquina complement the bathroom's Indian Black granite countertops, but the black marble's white veining creates a smooth transition from the floor to the Statuario Carrara marble slabs.

To give the doorless walk-behind shower a uniform look, the installer book-matched each Statuario Carrara slab, lining up the veining to form a continuous line. "It's extraordinary," says Bob Packard, senior project manager for Kenneth Castellucci & Associates. "The way the veining goes up a piece of marble, through the molding and into another slab of marble, it all looks like it flowed from the same piece."

Other bathrooms had similar central features. Since Little wanted a blue powder room off the kitchen, she used an Azul Macauba granite to bring a beautiful blue into the space. Another shower's yellow flower and green leaf mosaic border tile inspired the use of Alba Di Chiara marble, which worked well due to its beige and green hues.

To complete the look, Little tied each bedroom to its accompanying bathroom by matching the fireplace surround to the bathroom's central stone.

Moving from the functional to the fun, Little selected a Costas Smeralda granite as the key material for the home's exercise room, which features a full bath and a swim-against-the-current



ABOVE: Honey onyx dominates Red Rock Casino's Onyx Bar.

#### **BETTING ON NATURAL STONE**

When they decided to build the first billion-dollar resort off the Las Vegas strip, Stations Casinos knew exactly what look they wanted to achieve with their new Red Rock Casino, Resort and Spa: desert-modern, but in the vein of the classic resort architecture of the 1960s. To achieve that effect, the project's design team, Friedmutter Group Architectural and Design Studios, pulled together a variety of materials, drawing influence from native and imported species alike.

"You'll see the materials come up again, and those stones end up creating the story line throughout Red Rock Casino, Resort and Spa," says Suzanne Couture, senior interior designer. "If you saw the lobby next to the Grand Café and stripped them of their color, they look like completely different properties: One's very contemporary and sleek, and the other's a bit more residential feeling and transitional. But, because we use the same stone in two completely different applications, there's still a memory of it, and all these places feel like they really belong together."

For instance, natural onyx plays prominently throughout Red Rock. Green onyx permeates the buffet, both as a backlit feature at the cashier's station and as part of a mosaic border in the food-line area. Vulcan Red onyx appears in the steakhouse's main sculptural features as well as a backlit feature at the bar. A honey onyx dominates the Onyx Bar, with applications including light fixtures, bar tops and backlit back bars. All told, the Friedmutter Group used more than 5,400 square feet of onyx in its design.

Likewise, whether it's bush hammered, split-faced, semi-polished or honed, the Jerusalem stone color family repeats throughout Red Rock's interior, surfacing around elevator vestibules and as flooring for the Grand Café.

Since Red Rock Casino, Resort and Spa is nestled in the foothills of Red Rock Mountain, the design team used indigenous red sandstone on all of the resort's interior and exterior columns, which ties the building into its natural surroundings. To complement the red sandstone, the designers chose Teakwood sandstone with natural striations that mirror the local geography for the floor, using 70,000 square feet of the natural stone in the casino.

The result? "It's an exciting and vibrant casino environment," Couture says. "It doesn't blend in – there's no way you'd miss it – but at the same time, it really feels like it's indigenous."

#### **RESOURCES**

Friedmutter Group Architectural and Design Studios Las Vegas, Nev. 702-736-7477 www.fglv.com

RIGHT: The Rhode Island homeowner chose the soft hues of this Italian Alba Di Chiara marble to complement a mosaic border tile in the shower.

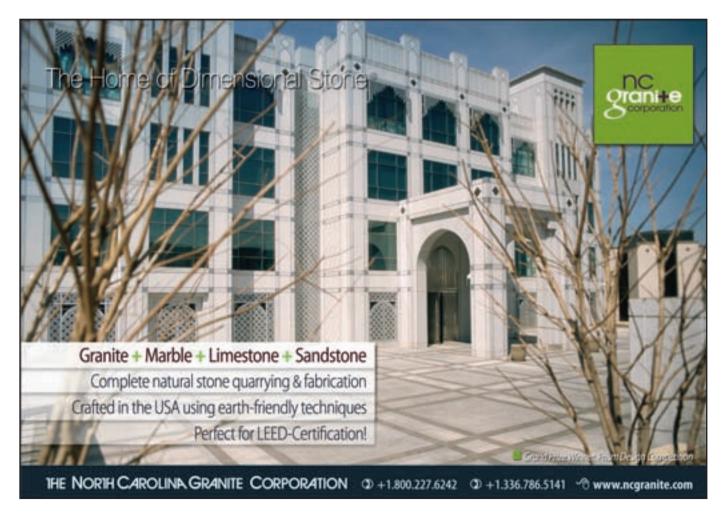


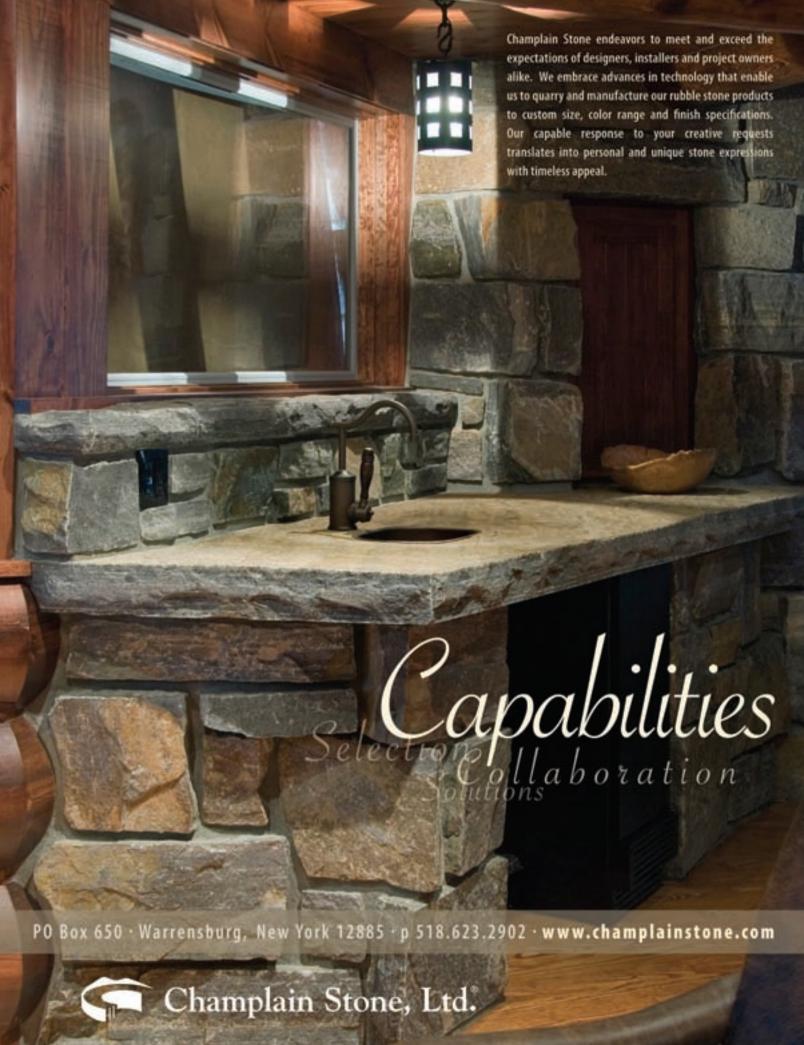
pool. Though the granite on the walls is polished, Little opted to have the floor's Costas Smeralda sandblasted to improve traction when wet. The granite flows from the pool area into the neighboring bathroom, which even includes Costas Smeralda cubbies for stashing towels and a change of clothes.

While natural stone permeates every corner of Greyledge, the house would not be complete without Carnelian, Little's favorite granite, which she discovered while working for Rock of Ages. Since Little prefers blue over red tones, she chose the variety quarried at Cold Spring Granite in Milbank, S.D. The

material proved ideal for the wine cellar's counters.

"It's a very pretty house, and it's a stunning location," Little says. "We look west across Narrangansett Bay. Coming from Florida where we are basically flat and limestone, it's interesting to be up north where you actually have hills and granite and shale. We sit





ABOVE: Natural stones combine to create a warm contemporary feel in Las Vegas.





out on our Key West patio and watch the sunset."

#### Las Vegas, Nev.

Out west in Las Vegas, Nev., Michele Aloe used a unique palette of limestones and marbles to give her three-bedroom, three-and-a-half bathroom loft-style home a warm look, which was no easy task, given its contemporary design. But, since Aloe works as a showroom manager for Walker Zanger, she knew just the right stones to use to pull it off.

"You can't throw an old-world feel at it by any means," Aloe says. For instance, to give the floors a contemporary feel, Aloe had aluminum inlays randomly placed throughout the green Seagrass limestone. And, just as Little brought the outside in, Aloe brought the Seagrass out into the courtyard, tying the material into the pool and decking.

Aloe also mixed metal with limestone in the master bath-

room, putting a modern twist on a classic French material. Chosen for its honey-colored veining, the Beaumaniere limestone floor, vanity top and shower bring a warm glow to the bathroom. Stainless steel insets in the master shower, reminiscent of molten metal, and the quirk miter edge's sharp, clean lines work together to give the space a contemporary feel.

But using metal isn't the only one way to achieve a contemporary look. In the guest master suite, where the primary materials include pebble rocks on the floor and Canadian Pierre Brun limestone vanity tops and shower walls, Aloe mixes glass tiles with the limestone to give the room a modern flare. The glass tile accents resurface in the powder bathroom, which also features a honed slate water accent along one wall that trickles down behind the toilet and stainless steel vanity. Another guest bathroom combines silver







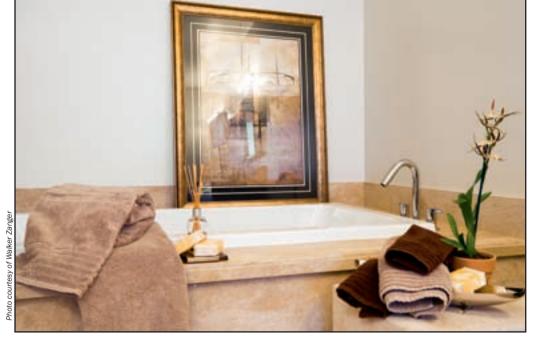




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ABOVE: The bathrooms in this Las Vegas residence utilize natural stone from travertine to limestone.

BELOW: Despite its modern design, the natural stone fireplace adds a warm element to this home.

travertine mosaic walls and simple details with black Wenge cabinets and a white marble vanity to create a unique contemporary space.

Instead of the silver travertine, Aloe blended a white marble mosaic with a recessed channel and a precast mantle made out of limestone dust and concrete to construct the home's centerpiece: a 23-foot floor-to-ceiling fireplace. "It's quite a striking piece when you walk in the house," Aloe says.

The white marble recurs in the kitchen, where the island boasts a Calacata Carrara marble countertop. "I've always loved Calacata marble, and I really wanted to use it in this house," Aloe says. "Being in the stone business, I wanted to live with it, too, to see how hard I could abuse it. A lot of people want to do marble on kitchen countertops, and unless you live with it and understand it, it's hard to sell it."

"We've been really rough on it, and it still looks great," continues Aloe, who adds that the Calacata marble's sage green veining complements the kitchen's Seagrass limestone floor. To give the marble a bit of texture and prevent any etching from becoming a problem, Aloe had an antique finish applied to the stone.

Although the original plan called for the remaining kitchen

#### RESOURCES

Rhode Island Residence

Kenneth Castellucci & Associates

Lincoln, R.I. 401-333-5400

#### Champlain Stone Ltd.

Warrensburg, N.Y. 518-623-2902 www.champlainstone.com

#### Las Vegas Residence Cold Spring Granite

Cold Spring, Minn. 320-685-3621 www.coldspringgranite.com

#### **Precise Stone Creations**

Las Vegas, Nev. 702-643-7755 www.precisestone.com

#### Walker Zanger

Tile & Stone Showroom Las Vegas, Nev. 702-248-1550 www.walkerzanger.com

countertops to be constructed out of Lagos Azul limestone, Aloe changed her mind when she got her hands on a sample of a stunning new granite: Iron Red. "It's just absolutely beautiful," Aloe says. "It gave the kitchen a whole different feel."

The Iron Red repeats on the adjacent bar, which, though part of the kitchen, is tucked under the metal staircase. "Precise Stone Creations did a fabulous job on it," Aloe says. "We have sodas and beer on tap, and the bar top has a mitered flat edge. That Iron Red is really hard, so its fabrication was quite a handful, but it's beautiful.

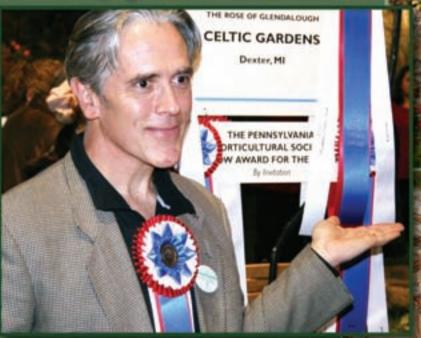
"The home has an interesting combination of materials," Aloe continues. "It is a little unexpected, which is nice, but it is truly a warm contemporary feel."

A true generalist, freelance writer Jennifer Maciejewski writes about anything that piques her curiosity. She can be reached at jm@jenmacie.com.



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John Cullen is the only American to be invited to the 2008 Singapore Garden Festival, and we wish him the best of luck!



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### BLUESTONE OFFERS COLOR, DEPENDABILITY

# Building with the Blues

HANKS TO A NAT-URAL STONE that not only functions well in landscaping features such as patios, but also in more versatile and creative ways – such as for countertops and flooring – the bluestone market has seen tremendous growth over the past few years.

Bluestone is sold as both dimensional and flagstone, providing opportunities for use as paving, pool coping, wall veneer, stair treads, architectural facings, fireplaces, sills and – more recently – as a basic building material for churches, institutions, homes and businesses. The stone is available in many formats and sizes such as irregular slabs, tumbled pavers, wall rock and tumbled gravel.

Peter Johnston Jr., vice president of Johnston & Rhodes Bluestone Co. in New York – a company that has been exclusively quarrying bluestone since the 1800s – says the qualities that make bluestone appealing to clients include its options for a "full range of earth tones or the solid blue-grey." Additionally, Johnston says the stone offers superior durability and strength. "Bluestone's texture and abrasiveness make it ideal in all weather



ABOVE: This bluestone paving is variegated thermal finish accented by irregular flagging paths, thermal rocked edges and fieldstone walls.

OPPOSITE LEFT: Bluestone's subtle reflective quality enhances the Baltimore Visitor Center.

#### DID YOU KNOW?

Bluestone is available in two basic color groups: variegated (full-color) or select. Full-color bluestone includes the blue, grey, green, brown and lilac tones. Select bluestone has a more consistent coloration, with primarily steel blue to blue-grey with some greenish hues.



ABOVE: Flooring inside New York's Museum at Bethel Woods Center for the Arts is Elk Brook bluestone.

#### A STONE BY ANY OTHER NAME

Often referred to as "Pennsylvania bluestone," this natural stone's moniker simply doesn't do it justice. In addition to its wealth of color – not simply blue – the stone is available outside of Pennsylvania, with deposits reaching into New York. Quarries also exist in the United Kingdom and Australia.

for a high slip-resistance paving or tread material," he continues.

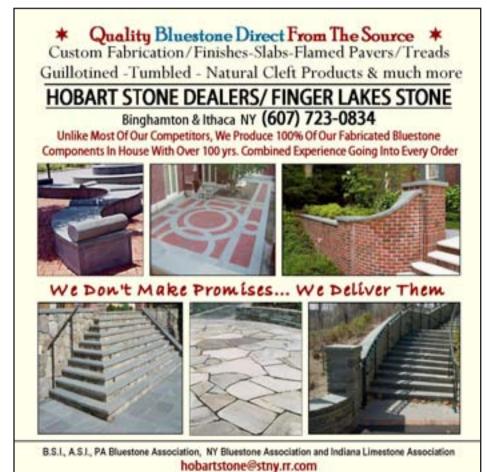
And, even in treacherous climates, Johnston explains that bluestone has staying power. "If properly cared for, bluestone installations can last more than 100 years," he says. "In fact, we get inquiries every year about replacing bluestone walkways in New York City that are well over a century old. Most of the time, a percentage of the old bluestone will be salvageable and can be re-laid."

Because of its durability, bluestone can be used for not-so-traditional projects, too. "We did some bluestone gutters a few years ago," Johnston says. "It was interesting because, on long stretches, the pitch of each stone was different and had to line up perfectly for the water to flow properly."

#### **Bluestone in Baltimore**

When designing the 8,000-square-foot Baltimore Visitor Center, Design Collective Inc. of Baltimore was looking for a material that was indigenous to the area and would have a strong connection to Baltimore. Instead of going with the obvious choice of red brick, the decision was made to utilize a historically significant material that they could use in an inventive way: bluestone.

Unlike other typical building stones, however, there wasn't a great deal of precedence for using bluestone as building cladding. Often, bluestone is used as an exterior paver for surrounding pools or placed on terraces. In most cases, the installation uses the common random sizes of natural shapes with a wide range



#### RESOURCES

**Design Collective Inc.**Baltimore, Md.
www.designcollective.com

Johnston & Rhodes Bluestone Co. East Branch, N.Y. 607-363-7595 www.johnstonandrhodes.com

RIGHT: A pool paradise is created with bluestone coping, paving and veneer.



Photo courtesy of Peter Johnston Jr./Johnston & Rhodes Bluestone Co.

of color. In this case, the architects needed large, rectangular panels with a subtle color range.

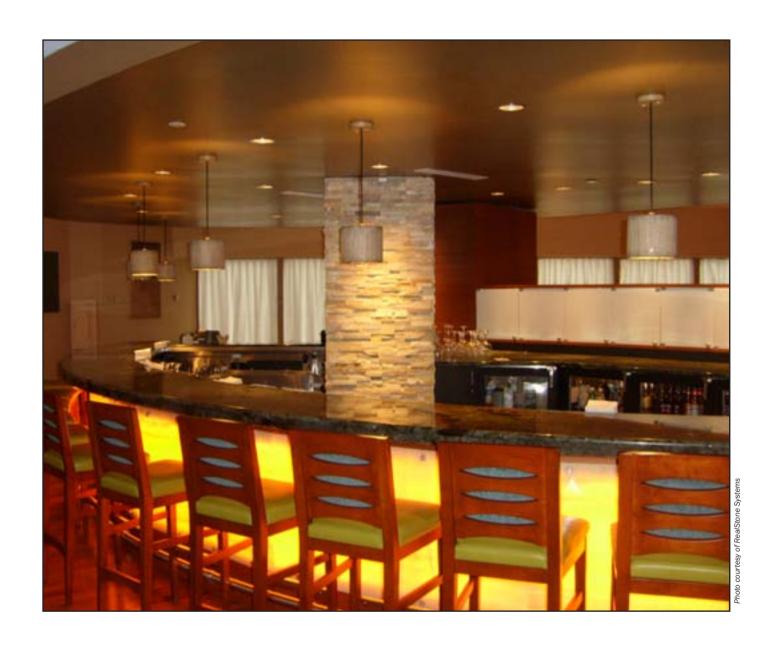
Another challenge arose during the joint work. The original intent was to use a colored mortar in the joints to match the understated tone of the stone. Using several mock-up panels, the architects observed that the bluestone had such a porous quality that it wicked the colored mortar into the perimeter of the panel.

Chris Harvey, a partner at Design Collective, worked for several months with contractors and vendors to get mounting, sealing and grouting processes worked out. "We set panels out for weather checks and monitored the 'aging' process," Harvey explains. "Our solution was to use a colored sealant that would additionally allow for movement with the stone. The final installation also contained a water sealant."

In the end, despite the challenges, bluestone proved to be an excellent choice for the Baltimore Visitor Center. With the site located on the West Shore of Baltimore's famous Inner Harbor, the stone's very subtle reflective quality enhances the building's appearance by creating a dramatic effect where the stone plays off its waterfront setting. The color range also works well with the main structure's palette of peppered granite, black slate, brushed aluminum, steel and glass. •

Freelance writer Tom Inglesby contributed to this article.





### PUTTING ON A NEW FACE

## Thin Stone Veneer

By Mark Haverstock

OOK AT NEW CONSTRUCTION IN YOUR

community and you'll likely see more buildings clad in stone. Take a closer look, and you might find that thin stone veneer is becoming the material of choice on many projects. Contractors are choosing thin stone for a variety of reasons: its natural beauty, a sense of permanence, ease of installation and the ability to match existing stone structures economically.

In response to market demands, several companies are now involved in the development of panelized thin stone veneer products in addition to standard or custom-cut veneer. Panel dimensions vary and can range in size from 10- by 16-feet to more compact 1-square-foot pieces. These panelized systems, featured in two of the projects described in this article, give architects, designers and installers some new and attractive options when specifying natural stone.

#### Intermodal Transportation Facility, Fordham University

Located on the campus of Fordham University's Rose Hill campus in New York City, this five-story parking facility contains more than 1,500 parking spaces and provides shuttle services to and from the University, the Bronx Zoo, the New York Botanical Gardens, the Belmont-Arthur shopping district and the Metro North Rail Line. Its planning and construction were a combined

effort of the University, city, state and federal governments.

The goal was to take this large parking garage and to construct it in such a way that it didn't look like a parking structure. "It was designed to blend with the campus context, the vocabulary of the campus," says architect Doug Hyde, who designed this structure during his tenure with Einhorn Yaffee Prescott Architecture & Engineering PC. "Fordham is a stone campus and this project embraced that idea." Hyde's solution was to gift wrap the structure in stone.

Corinthian granite from Champlain Stone was chosen to maintain continuity, primarily because this same variety of stone was used on the adjacent O'Hare Residence Hall, which Hyde also designed. "Corinthian granite was also used for the bridge that provides connectivity from the parking structure to the residence hall through a portal, which in essence is a major gateway to the campus," he says.

Full-size hand laid stone was originally considered by decision makers at Fordham, but was not a viable option in this case. "It was impossible to find real stone masons in New York City in sufficient numbers to economically execute a project of this scale," says Bryan J. Byrne, PhD, vice president for administration, Fordham University. "We learned this during the construction of O'Hare

OPPOSITE LEFT: The Minneapolis Marriott Hotel features RealStone panels installed in the lobby, restaurant and bar.

BELOW: New York's Fordham University now includes an architecturally appealing parking structure featuring Champlain Stone's Corinthian granite veneer.



1 S. Impedmo I. O Nicholas D. Lombardi S. I



LEFT: Installers put finishing touches on stone panels at Fordham University's parking facility.

Hall. We tried to use another system of concrete molds with fullsized inlaid stone but the contractor defaulted."

Panelized walls with thin stone veneer attached to the surface were finally chosen as the best option. "The panels assured everything was going to stay together," says Erin Brothers, project coordinator for Champlain Stone. "Eastern Exterior Wall Systems spent a long time testing our stone, confirming it would hold using this method."

Hyde notes that these panelized walls ultimately achieved the same look as the hand laid stone used in the construction of O'Hare, without the amount of

labor and equipment needed to perform this kind of work onsite. Also, the panelized systems cost less and create less debris on the construction site than full bed stone installation.

Panelization also allowed all of the stone work to be performed in a controlled manufacturing environment without weather delays. "After completing the panels required to enclose the building, our company can usually face a building of this size in six to eight weeks," says project manager Jeffrey Bartleson of Eastern Exterior Wall Systems.

Champlain Stone cut pieces of the Corinthian granite, achieving a desired thickness of



#### MOISTURE DRAINAGE AND VENTILATION

Natural thin stone veneer installations are made of the same materials as any masonry wall. What installers are now realizing is that thin veneer installations also act much the same and that they need to take steps to avoid possible problems with moisture and toxic mold.

"If you look at all the documentation that the Brick Industry Association puts out for brick and stone wall construction, they always specify an air space – and the reason why is that moisture passes through masonry products," says Jim O'Neill, sales engineer for Keene Building Products. "Mortar absorbs water, and moisture works its way through masonry units to the other side. The problem is that in the majority of the walls that are built today with thin veneer, there is no air space. Weather resistant barriers become the sole prevention for leakage, something they were never designed to do."

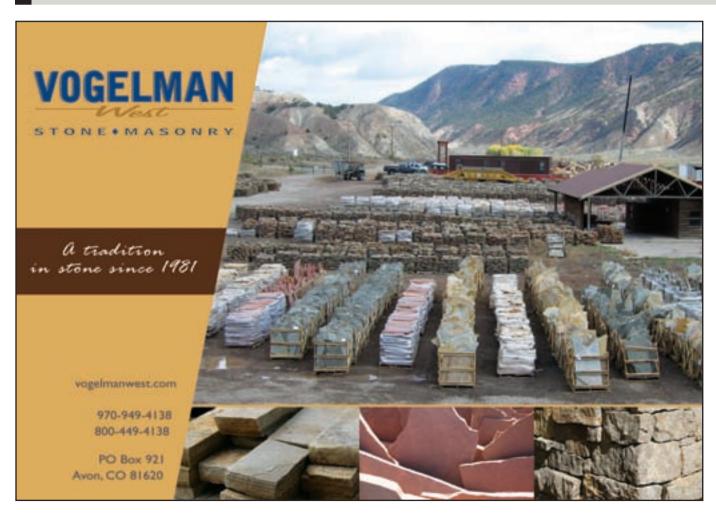
Several products on the market provide that missing air space in thin stone applications. This does two things – it lets the weather-resistant building paper perform as it was designed by creating an air space on one side of it while providing an avenue for drainage and ventilation. Incidental moisture that is migrating through the wall has a place to exit the building without seeping inside because the weather resistant barrier is performing properly. It has a cavity that drains through the bottom to the exterior, as well as letting air circulate, providing drying on both sides of the wall.

According to O'Neill, the air space creates a capillary break. "There can be a terrific amount of moisture stored in these masonry walls. And if the masonry is touching the weather-resistant barrier without an air space, capillary action just keeps drawing it into the building," he says. "You provide an entangled net product like our Driwall Rainscreen behind the thin stone veneer, and it breaks up the capillary action."

In parts of the country that experience frequent freeze and thaw cycles, hairline cracks in the mortar joints can exacerbate the moisture problem. These hairline cracks allow wind-driven rain to penetrate the mortar and collect within the interior wall. "Moisture eventually gets in and of course causes mold and rot," says Kevin Lolley, sales manager for Advanced Building Products.

After installing their product, Mortairvent, a ventilation cavity is created between the vapor barrier and exterior wall. The polymer core mesh creates airspace, while the filter fabric blocks mortar droppings from seeping into this newly formed cavity – and still allows moisture to pass through. The combination of drainage and ventilation eliminates the threat of toxic mold.

When it comes to flashing for commercial projects, copper is the material of choice. "It's a little more expensive, but it's the only metal that's completely resistant to all the acids and alkalis that are present in fresh mortar," Lolley explains. "When you're building a school, court building or any of the commercial structures we deal with, you're talking about a 100-year structure, so you don't want flashing that's going to fail in 10 or 20 years."





LEFT AND OPPOSITE RIGHT: Construction detail of thin veneer panels being assembled at EEWS facility in Bethlehem, Pa.

% to 1% inches. "Then it became our responsibility to work the stone further, knocking off the perimeter arris and arranging the stone in the Ashlar pattern as seen on the finished panels," Bartleson says. "We first created a mock-up panel, which was approved by the architect, and used as our control sample for the remainder of the project to ensure consistency."

Prefabricated wall panels for this project were comprised of six-inch 16-gauge galvanized studs, sheathing, a ¾ inch mud bed with lath, thinset and the Corinthian granite stone veneer.



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Loop extends one direction only to allow simple placement of insulation. Slip on Loop-Lok<sup>TH</sup> Washer to mechanically lock insulation in place. U.S. Patents 5,408,798; 6,668,505 6,789,365; 6,851,239 Other Pats. Pending

## MIGHTYI OK

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Available Truss style (#170-ML) or Ladder style (#270-ML).

Panels were assembled in the Eastern Exterior Wall Systems manufacturing facility in Bethlehem, Pa. "The panels in this particular case had approximately a 10-day shop life cycle due to the amount of wet goods used," Bartleson says. "This is to say there was a lot of time spent curing."

The material needed to attach the panels in the field is usually independent from the panel itself. "In this particular case, the panels were attached using an assortment of shelf angles and 'T' bolts which were attached to the precast first and then welding the panels to the

angles," Bartleson says. "Every panel connection is unique from project to project as panel sizes, weights and deflection criteria may change. Therefore all panel connections are engineered and are somewhat job specific."

By using the same ratio of small, medium and large stone in developing the pattern, consistency from panel to panel was maintained. After erection was completed, the ¾ inch joints between the panels were eliminated using a color matched silicone caulk and backer rod. "It's nice to be able to offer architects and engineers an alternative means to the labor



## TECHNOLOGY AND INNOVATION

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LEFT: A front view of the university's O'Hare Residence Hall reveals a close match to the parking facility.

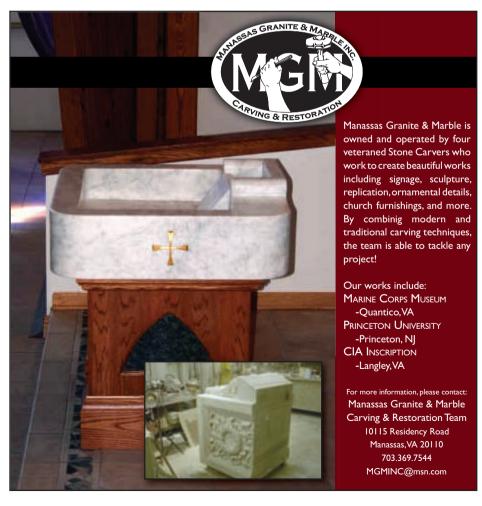
intensive process in applying field stone," he says.

Bartleson notes that this project was a very unique challenge for his company. Trying to mimic field-installed stone without compromising the overall look was difficult. "Having to compete with the restraints of the panel size rather than having a continuous wall canvas to work with posed an assortment of obstacles," he says. "It took some time to develop the system that we used in our shop for manufacturing these panels, but we eventually ironed out the flaws. I think the finished product speaks for itself."

Despite the large learning curve, it proved to be a very straightforward process – and the finished product met or exceeded expectations. "The goal was to build something attractive and lasting – something that's a part of the campus context instead of being just a big parking structure," Hyde says. Byrne agrees. "The garage has been well received both for its functionality and its aesthetic impact. The extra effort was worth it given its proximity to the main entrance to the campus."

#### **Marriot Facelift**

The Minneapolis Marriott City Center Hotel originally featured a 1980's style interior that needed to be made more contemporary. "There were no program changes – it's just basically a philosophy of change that Marriott decided at the corporate level about the look and function they wanted in their hotel restaurants, bars and lobbies," according to



RIGHT: Columns at the Marriott are clad in Sierra Sandstone Shadowstone.

designer Byron Kermeen from Walsh Bishop Associates. "The existing interior at this location didn't fit the model."

Stone was chosen as the new interior wall covering. According to Kermeen, the use of stone was a nod toward Minnesota's Northwoods. For cost reasons, a Real-Stone System thinstone veneer product was chosen. Cladding the columns in stone was about one-third the cost of wood.

RealStone System's Sierra Sandstone Shadowstone, a variety of quartzite, was specified by the





RIGHT: About 3,000 square feet of stone were used in the Marriott renovation.



The veneer material used comes as a 6- by 24-inch panel of dry stack ledgestone, which is composed of individual stone veneer pieces stacked and adhered together to form stan-

dardized one-square-foot panels.

Grout or mortar between the

architects at Aumiller Youngquist PC and Walsh Bishop Associates to renovate the lobby, restaurant and bar. Minnesota Brick & Tile, a RealStone Systems distributor, supplied approximately 3,000 square feet of stone for the project. "Sierra Sandstone Shadowstone continues to be one of our more popular products used in both the commercial and residential markets in a wide variety of applications for interiors and exteriors," explains Mike Ryan, national marketing manager for RealStone Systems.



www.realstonesystems.com

## STICKING WITH THE RIGHT VARIETY OF MORTAR

Thin stone veneer is always the star of the show, but what about the supporting cast? Unfortunately, mortar selection is not always given proper consideration in planning for construction projects. Choosing mortar is just as important as choosing the thin stone veneer itself – mortar accounts for up to 17 percent of the wall's visible surface and is the "glue" that holds the stone in place.

"Installers should choose some type of modified mortar, either a latex or a polymer acrylic to enhance the stickiness and lessen the amount of sag," says Stan Harwell, mid-Atlantic and northeast sales manager for Amerimix. Sag refers to the tendency of the stone to slide down the wall or shift position as a result of its weight.

Temperature differences are also a consideration. "If you're putting the backing or setting mortar against a cold concrete block wall, you're probably going to want to add some kind of accelerator, and you'll want to heat the water to increase mortar temperature," Harwell says. "In the summertime, when it's hot and the sun is beating down on a block wall with no moisture in it, you're going to want an additive to hold the water in longer."

Installation in northern climates is affected by seasonal temperature extremes. "You're going to want mortar with good entrained air content in the 8 percent to 12 percent range," he explains. "That's going to help with freeze-thaw issues." Harwell also suggests that installers consider the extensibility of the mortar — how much will it shrink in relation to the backing material. "You can get hazing and cracking behind it, which opens up the possibility of water penetration."

Most pre-blend companies, including Amerimix, have a product made especially for thin stone veneer. "You don't need a lot of strength in this application; what you need is good bonding capabilities and good flexural strength," Harwell explains.

panels is not necessary. A tolerance level of +/- 2mm on the panels greatly reduces any visible gapping once installed.

Panels come preassembled and are ready to install right out of the box. Each piece on average weighs 10 pounds, so it still only takes one person to set up. Like conventional thin stone veneer, once the surface is prepared, installers mortar the back of the stone and stick it to the wall. Installers typically start from the bottom up to make sure everything is level. "Installation is roughly 25 percent to 40 percent faster than typical natural thin stone veneer," Ryan says. "The installer is able to put up a square foot at a time versus smaller individual pieces."

More renovations planned for the structure, and Kermeen says they are advocating the continued replacement of existing wood with thin stone veneer. "It will be continuing up on the sixth floor where there is an open atrium," he explains.

"The stone will be carried forward in the renovation."

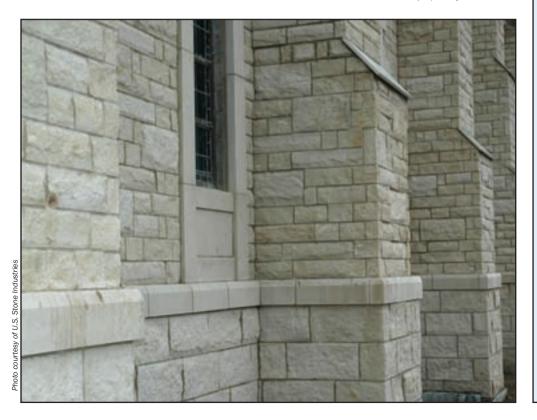
#### John Brown University Restoration

At the heart of the John Brown University (JBU) campus in Siloam Springs, Ark., stand gothic-style buildings known as the Cathedral Group: the Cathedral of the Ozarks, the Engineering Building and the Art Building. They are the focal point of the campus. All were originally built of concrete block with concrete openings and trim.

Since the construction of these structures in the 1940s and 1950s, sun, rain, ice, and sleet have taken their toll on the exposed concrete block causing significant staining, crumbling and other deterioration. The deteriorating integrity of the concrete block put the interiors of these buildings at risk for moisture penetration and mold.

JBU began a restoration and renovation campaign to face all

BELOW: Using limestone was part of the original building plan for the restoration project at JBU.



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RIGHT: RealStone panels merge together to form a 90 degree corner with ease.

the buildings with limestone veneer – using limestone was actually part of the original building plans. In addition, the project includes roof replacement, restoration of stained glass windows and updates to the interiors. The project goals were to restore, preserve and extend the lives of these buildings.

"That kind of architecture was very unusual in a block building from the '50s," says Kent Barnow, managing partner of U.S. Stone Industries. "It's a great case study of what's possible, even with buildings in that condition"

More than 30,000 square feet of Kansas Cottonwood sawn split-face thin veneer was utilized in the renovation. "It was sawn to specific lengths and heights, so it wasn't random," Barnow says. "The cut stone was fabricated in two standard sizes and profiles."

According to Eric McBride, president of John McBride Construction, some of the block had deteriorated over the years, which had been patched with Portland lime mix. "We covered that with



Photos courtesy of RealStone Systems





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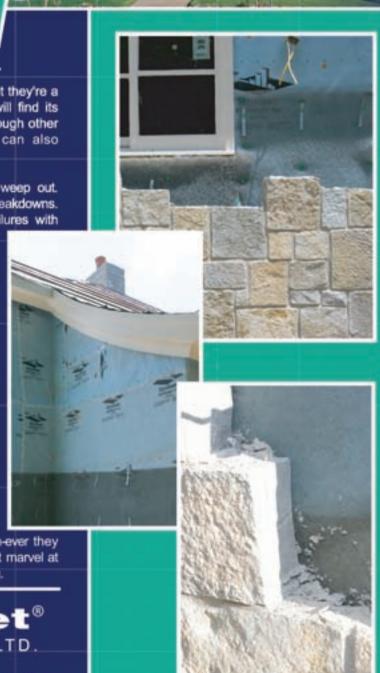
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RIGHT: The Cathedral of the Ozarks in Arkansas has a bright new look thanks to limestone veneer facing.

BELOW: More than 30,000 square feet of Kansas Cottonwood sawn split-face veneer was utilized in the renovation of the Cathedral Group on Arkansas' JBU campus.



some paper backed lath," he says. "The limestone was installed like typical veneer, putting on the ground coat and then the stone in an Ashlar pattern." Veneer to cover the concrete openings and trim were thinned down by sawing them to size at the site.

The project started in early July 2007, and the bulk of the

project was completed after seven months. JBU raised the \$6.1 million total cost, with \$1 million matching grants from both the Mabee Foundation and the Kresge Foundation.

Mark Haverstock is a freelance writer in Boardman, Ohio. He has published more than 500 magazine articles on a variety of topics.



#### **RESOURCES**

Fordham Intermodal Transportation Facility

Project Architect: Doug Hyde, AIA

Design Firm: Einhorn Yaffee Prescott

Architecture & Engineering PC

Albany, N.Y.

www.eypaedesign.com/

Installer: Eastern Exterior

Wall Systems Inc.

Bethlehem, Pa.

Jeff Bartleson, Project Manager

www.eews.com

General Contractor: Jeffrey M. Brown

Associates

New York, N.Y.

Michael McAleer, Project Manager

**Stone Supplier:** Champlain Stone Ltd.

Warrensburg, N.Y.

www.champlainstone.com

Marriott Hotel, Minneapolis, Minn.

Architects: Aumiller Youngquist, PC

www.aypc.com

Walsh Bishop

www.walshbishop.com

**General Contractor:** Shingobee

Builders Inc.

Loretta, Minn.

http://shingobee.com

Stone Supplier: RealStone Systems

Troy, Mich.

www.realstonesystems.com

John Brown University Restoration, Arkansas

**Stone Supplier:** U.S. Stone Industries LLC

Prairie Village, Kan.

www.usstoneindustries.com

Contractor: John McBride Construction

Gravette, Ark.



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# STONE INDUSTRY RALLIES TO COMPETE IN GREEN MARKETPLACE

# It's Only Natural

By Nancy Moreland

ROM THE STARK SPLENDOR of Stonehenge to the towering elegance of the Cathedral of Notre Dame, natural stone has always been the building material of choice when architects wish to create a lasting impression. Modern architects and builders select stone for many of the same qualities their ancient forebears did: beauty, durability and low maintenance. Few building materials stand the test of time as well as stone.

For all of its selling points, natural stone must now stand more than the test of time. Today's architects, builders and consumers are influenced by an increasing awareness of the responsible use of resources and a desire to create healthy environments in which to live and work. They are raising the bar on all building materials, including stone.

#### **Building Momentum**

Ashley Katz, a communications consultant at the U.S. Green Building Council, defines a green building as a "high performance building that is more environmentally responsible and more profitable," than an average building. A "profitable" building reduces operational and "people" costs, which translates into energy savings and increased productivity due to fewer sick days. Achieving an environmentally responsible building may include using locally sourced and/or recycled materials, selecting energy-efficient products and positioning a building to take advantage of climate.

As the green movement gains momentum, products and services touted as environmentally friendly are flooding the market-place. Furthering the trend is the knowledge that supplier, builder and architect responsiveness to demands for green methods and products translates into another form of green: profit.

In a 2008 U.S. Construction Overview, FMI (management consultants and investment bankers to the construction industry) projected that \$21.2 billion of all new nonresidential construction will employ the use of green building principles. In another report, the value of green building construction is projected to increase to \$60 billion by 2010.\* According to the FMI, the significant growth in green construction has gradually shifted perception among construction company owners, architects and engineers. The industry increasingly has realized that green building capabilities are essential to best practices. FMI's Overview identified three forces behind the green building movement:

- Unprecedented level of government initiatives
- Heightened residential demand for green construction
- Improvements in sustainable materials.

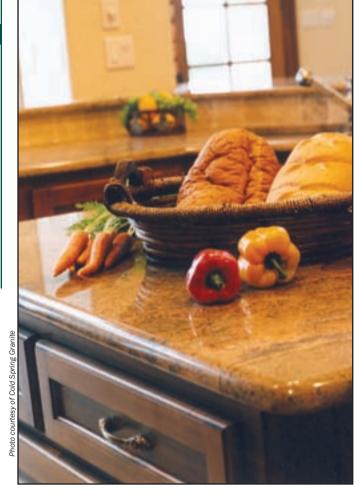
#### Selling Stone's Sustainability

Stone's legacy as a natural building material is something the industry can bank on. "It's a material built by nature to last," says president and chief operational officer of Cold Spring Granite Company John Mattke. He serves as co-chair of the Natural Stone

\* Source: McGraw-Hill Construction Analytics, SmartMarket Trends Report 2008

OPPOSITE RIGHT: Stone's longstanding reputation for durability and low maintenance is complemented by versatility.





LEFT: Despite allegations to the contrary, independent studies have proven that granites such as this Golden Oak variety do not harbor bacteria or emit dangerous levels of radon

Council (NSC), a group of businesses and trade associations that have come together to promote the use of genuine stone in commercial and residential applications. Mattke feels that stone's longstanding reputation for durability and low maintenance is now complemented by versatility. With computer-aided equipment and other modern manufacturing techniques, stone can meet nearly any architectural need, including molding, door knobs, staircases, alcoves and even toilets. And, in some climates, the material's natural ability to moderate temperature can also contribute to building efficiency.

Some in the environmental movement say stone can never be considered sustainable because it's not renewable. Jack Geibig, a senior research associate at the Center for Clean Products and Clean Technology (CCPCT) at the University of Tennessee – Knoxville, disagrees. He worked with the NSC on an operational process impact study to develop guidelines for environmentally responsible use of stone.

"The longevity of stone, the low maintenance of stone, the relatively clean way in which it's produced compared to something like PVC siding . . . I think there's a place for stone in the green build-



ing movement. I do see it as a more sustainable material," he says.

#### **Industry Response**

The stone industry has not been idle during the upsurge in all things green. In 2005, NSC formed its own Committee on Sustainability, comprised of industry representatives charged with focusing on sustainability issues and planning and executing initiatives. Mattke serves as the committee's chair. According to Mattke, the committee and the NSC are developing programs to strengthen stone's position within the green marketplace. And they're not working alone." Sus-

#### MIA STARTS FUND TO FIGHT ATTACKS ON GRANITE

The Marble Institute of America (MIA) recently announced it has created the "Truth about Granite Fund" to help finance a campaign to stop allegations attempting to link granite countertops to the threat of cancer.

The fund was launched with a \$5,000 inaugural gift from the Natural Stone Council (NSC) and a matching pledge from Cold Spring Granite of Cold Spring, Minn., says Jim Hogan of Carrara Marble Company of America and the current president of MIA.

"We know who is behind the spate of misinformation and why they are doing it – to discredit granite and push the sales of quartz-based synthetic stone countertops," Hogan says. "The misinformation campaign is being driven through front groups that purport to be consumer advocates but are merely trying to create consumer fears about natural stone. We must aggressively fight the unfounded fear mongering to reassure the public."

Calling the anti-granite campaign a major threat to the granite portion of the natural stone industry, Hogan says MIA has already invested \$50,000 of unbudgeted funds to stem attempts to scare consumers about granite. He says that amount could increase dramatically by year's end.

"It is important that we have all the legal, technical, public relations and marketing/advertising tools we need to protect the good name of granite and to reassure consumers that granite is as safe as it is beautiful, durable and practical," Hogan explains.

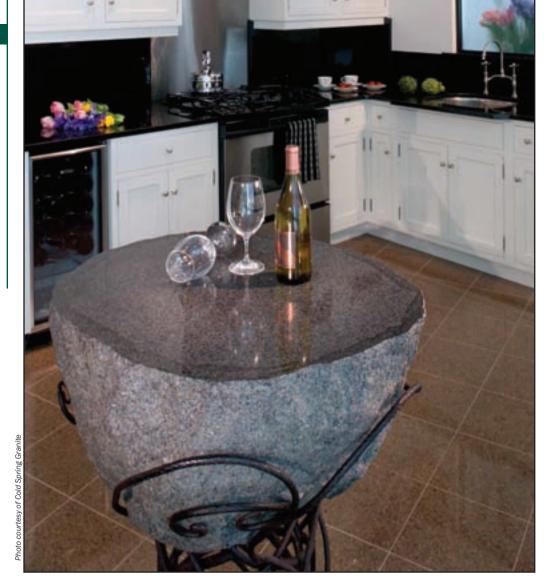
In a letter to MIA members, he stressed that the anti-granite campaign could create substantial financial losses for the industry if it is not challenged aggressively.

"Your support is vital," Hogan said in asking for immediate pledges for the fund from quarriers, fabricators, distributors and others in MIA and the rest of the natural stone industry.

The Truth About Granite Fund will be a special segregated account with expenditures overseen by the MIA executive committee.

For more information, visit www.marble-institute.com.





ABOVE: Homeowners whose kitchens boast granite surfaces need not worry about the emission of radon gasses. Shown here: Carnelian granite from Cold Spring Granite's Milbank, S.D., quarry.

tainability is universally recognized as an important issue, and I have yet to run across anyone in our industry who has been unwilling to help," Mattke says.

The industry is also taking steps to achieve a stronger standing with the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED®) Green Building Rating System™. LEED, a thirdparty certification program, is a benchmark for the design, construction and operation of green buildings. LEED recognizes a building's performance in five areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. At the present time, the only LEED credit stone is generally recognized as contributing toward is as a locally sourced material. As LEED continues to develop, many in the industry believe stone could eventually contribute to generating LEED credits for building and material reuse, low volatile organic compound (VOC) emissions, and a variety of other LEED categories.

#### Benchmarking Best Practices

The Natural Stone Council's first initiative was an intensive data-gathering mission to establish environmental best practices for natural stone industry operations. Environmental benchmarking helps industries evaluate the environmental, health and performance factors of operations in relation to best practices. To achieve this, NSC

partnered with an independent, third-party research facility, the Center for Clean Products and Clean Technology, in 2007. The Center works to create, assess and promote cleaner products and cleaner technologies to minimize pollution and to encourage sustainability.

Jack Geibig spearheaded the project. Over the course of a year, he surveyed 1,400 U.S. quarries and operations to evaluate impacts from transportation, resource consumption, water releases and operational methods. During the survey, Geibig visited 15 quarries with different types of stone. Overall, he was pleasantly surprised "at how non-impactful the quarrying practice is – there's very little chemistry involved and on-site water doesn't accumulate."

He also noted that, because stone is at the surface, quarrying isn't as environmentally destructive as mining. Geibig concluded that the stone industry was very similar to many other industries. He explains, "There's a lot of variation – the size of the company is often key," as to how sustainable their practices are.

The Center is processing the information to create lifecycle data and comparative information allowing architects and designers to weigh the environmental impacts of using stone versus other materials. Additionally, it will develop strategic sustainability goals for the industry and a plan to improve outreach to the environmental and green building communities.

#### **Spreading the Word**

As part of its efforts, NSC developed a Web site to promote the use of natural stone: www.geuinestone.com. The site includes this description of stone's

environmentally friendly attributes: "an enduring life-cycle, durability, ease of care and maintenance, recyclability and quarry and manufacturing best practices."

Communication tools will be created from the data collected by CCPCT. Information will be available late summer 2008 on www.genuinestone.com and will be distributed to design and architectural trade associations. The survey data will also be disseminated in the form of material fact sheets and case studies featuring companies employing environmentally sustainable best practices.

According to Mattke, the stone industry was intentionally cautious about jumping on the green bandwagon. "We learned early on about the dangers of 'greenwashing' making unsubstantiated claims about how green a product is. We've been preaching patience to the industry and are careful about what claims are made until we can support them with data that the architectural and design communities will relate to," Mattke says.

From his perspective as a researcher Geibig notes, "Their mandate with us was to be thorough and to bring out the truth."

#### **Addressing Health Concerns**

If the growth of green building presents opportunities, it has also brought challenges. Concerns over indoor air quality are fueling some of the green industry's growth and have generated considerable attention, particularly in the countertop marketplace. As a result, the granite industry is working to address two negative perceptions surrounding granite countertops that radon emissions from granite countertops could be harmful to a person's health and that granite countertops are difficult to clean and may even harbor bacteria.

A naturally occurring gas, radon results from decaying radium found in some stone and materials such as concrete, cement and gypsum. Radon is measured in units called picocuries per liter (pCi/L) - the unit of radon concentration in the air. The U.S. Environmental Protection Agency (EPA) has established four pCi/L as the safe standard for indoor air. It advises homeowners to increase ventilation at levels above four.

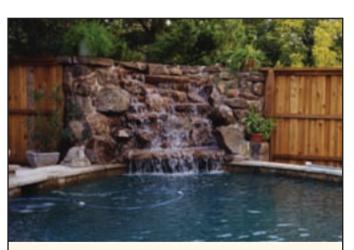
The Marble Institute of America (MIA) is taking the lead to address the radon issue,-because it is closely connected to the countertop industry. L. L. Chyi, PhD, professor of geochemistry and environmental geology at the University of Akron in Ohio, conducted MIA's most recent testing in 2008. Chyi studied 13 popular granites used throughout the United States. These granites are believed to represent approximately 85 percent of the granite countertop market in recent years.

Chyi's tests measured the amount of radon that each granite type would add to the interior of a 2,000-square-foot home with 8-foot ceilings. According to his results, granites currently found in the U.S. marketplace are insignificant contributors to radon levels in the home. Based on the test results and EPA standards, the MIA concluded that the most popular granite countertops pose no health hazard to homeowners. The test results are available on MIA's Web site: http://www.marble-institute.com/industryresources/radontesting\_u-

akron2008.pdf.

If granites currently in the U.S. marketplace have been proven to be insignificant contributors to radon levels in the home, then where is all the controversy coming from? A new nonprofit organization called BuildClean has conducted a study of radon levels from a granite countertop. It claims that at least one of its test results showed higher than normal levels of radon being emitted from the countertop. BuildClean's funding by synthetic stone producers, Silestone and Cambria direct competitors to the granite industry - makes the organization's study results suspect, according to those in the natural stone industry.

However, as a follow up to the BuildClean study, which aired on KHOU Channel 11 in Houston, William J. Llope, a Rice University physics professor, independently reviewed dozens of academic studies that considered 95 different varieties of granite. The good news for the natural stone industry and



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its consumers: He found that 92 of the 95 granites tested emitted little or no radon. Llope's findings may be found at: http://wjlope.rice.edu/SaxumSubluceo/.

Carl Smith, chief executive officer of Greenguard Environmental Institute (GEI) says his company hasn't done radon testing and has no plans to. "Radon is much more difficult to look at. In-home testing is tricky; how are you controlling what might be coming out of the basement, for example? The fair thing to say is that, while there's been some suspicion around radon from granite, the presence in the small amount of granite used indoors is still controversial and not empirically clear-cut."

According to Smith, Greenguard has tested a "considerable amount of stone and granite for chemical emissions." In particular, the tests look for VOCs. "We see some of these chemicals coming off stones that have been finished, glazed or grouted. Typically it's not from the stone itself, but from things used in conjunction with stone," Smith comments. Stone's long history as a building material may provide some peace of mind.

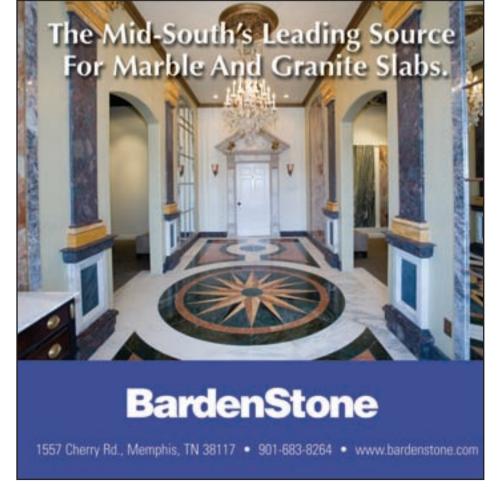
"It's been around a long, long time. It's one of the materials we know the most about, compared to other materials," says CCPCT's Jack Geibig. In regard to radon, Geibig feels it's wise to "compare and contrast" those concerns with synthetics "that we don't have compositional information on."

"Most people in the granite industry understand the facts about radon," Mattke says, "and realize that it is very difficult to establish the specific contribution of a granite countertop to a person's radon exposure relative to the rest of the materials present in a home. But the general consumer is unlikely to understand how radon works and may not have all the facts."

For their own piece of mind, Mattke's company, Cold Spring Granite, hired Daniel J. Steck, PhD, a physics professor at Saint John's University, to measure radon in its granites back in 1989. Steck's report stated that, "Even for heavy installations of your granitic materials, the radon concentrations due to these materials are much less than from similar sized areas of other building materials." Steck went on to say, "I believe that it is reasonable to say that the materials tested pose no significant radon risk." While the information presented by Steck indicates that the granites tested emit "insignificant amounts of radon," Mattke predicts that the entire industry will be required to publish more stone test data regarding radon in the future.

Other allegations claim that granite might harbor bacteria and even encourage mold growth. The MIA contends that granite is, in fact, extremely resistant to bacteria, mold and mildew because of its low porosity. In 1999, the stainless steel industry asked O. Peter Snyder, PhD, of the Hospitality Institute of Technology and Management, to perform a bacteria study on common countertop materials. Six countertops made of different materials (granite, stainless steel, laminate, wood, tile, concrete) were inoculated with E. coli bacteria. The countertops were then "cleaned with typical household detergents after which residual bacteria counts were taken," according to Chuck Muehlbauer, technical director of MIA.

Snyder reported that natural





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Stone Installers: Ithaca Stone Setting, Ithaca, NY Syrstone, Inc., North Syracuse, NY Stone Suppliers: Connecticut Stone Supplies, Milford, CT New York Quarries, Inc., Alcove, NY Tompkins Bluest Stone, Hancock, NY

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Stone Installer: Empire Granite Company, Richmond, VA Stone Supply and Fabrication: Buckingham Virginia SlateCompany, Buckingham, VA

#### Atwater Commons, Middlebury College, Middlebury VT

Firm: KieranTimberlake Associates, LLP, Philadelphia, PA

Stone Installer: J.B. Stone, St. Albans, VT Stone Supplier: Vermont Structural State, Fair Haven, VT; Owen Sound Ledgerock, Owen Sound, Ontario, Canada; Granit Aurelien, Tremblay, Alma, Quebec, Canada

#### Park East Synagogue, Pepper Pike, Ohio Firm: Mark Simon, FAIA, with Edward J. Keagle, AIA of Centerbrook Architects and Planners, Centerbrook, CT.

Stone Supplier: Jerusalem Gardens Stone Works, Ltd., Beit-Shemesh, Israel Stone Installer: SPS & Associates, Hudson, OH

#### Seattle City Hall, Seattle, WA Firms: Joint Venture/ Bassetti Architects, Seattle, WA/Bohlin Cywinski Jackson, Seattle, WA

Stone Installers: Columbia Stone, Inc., Portland, OregonRubenstein's Contract Carpet, LLC, Seattle, WA Stone Suppliers: Guinet-Derriaz, Lyon, France Stone N.V., Londerzell, Belgium

#### George A. Purefoy Municipal Center, Frisco, TX Firm: Malcolm Holzman, Holzman Moss Architecture, New York, NY

Stone Installer: Dee Brown, Inc., Dallas, TX Stone Supplier: Cold Spring Granite, Cold Spring, MN, TexaStone Quarries, Garden City, TX





ABOVE: According to 2008 test results, granites currently found in the U.S. marketplace are insignificant contributors to radon levels in the home. Based on the test results and EPA standards, the MIA concluded that the most popular granite countertops pose no health hazard to homeowners. Shown here: Agate granite from Cold Spring Granite.

granite demonstrated strong cleaning advantages over most other countertop surfaces. Granite's bacteria count reduction was second only to stainless steel, but it was 160 times superior to the next closest material. The report can be found at: http://www.natural-stone-interiors.com/countertop-surfaces.html.

In 2006, MIA contracted with Snyder to run another bacteria study. This time, Snyder tested four unsealed natural stones (three granites and one marble) using methods similar to his earlier test. He concluded that typical stone countertops were easily sanitized to meet FDA standards to reduce bacteria contamination. The full study may be viewed at: www.marble-institute.com/indu stryresources/bulletins.cfm.

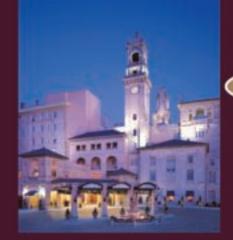
#### Embracing Accountability

With concerns about rising energy costs and diminishing resources, the green building movement won't likely be a passing trend. The stone industry can pride itself on facing the issues head on.

"Whether we are dealing with questions regarding environmental responsibility and sustainability or challenges related to health and safety, it's up to the stone industry to bring the truth out and let people make their own decisions," Mattke says. •

Nancy Moreland of ConveyMore Communications (www.ConveyMore.com) writes on a variety of topics for business, healthcare, government and academia. She may be reached at nmoreland@ConveyMore.com.

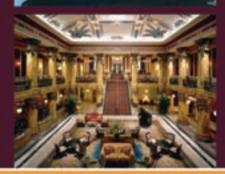


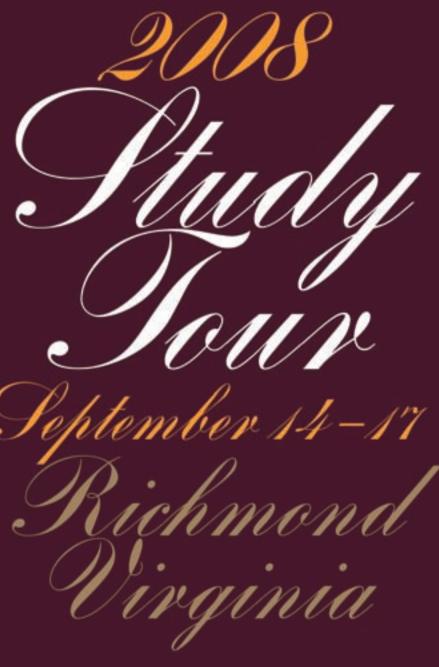


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# Hail to the Chief!

ARCHITECTURAL DESIGN AND BUILDING MATERIAL SELECTION HELP PRESIDENTIAL LIBRARIES PRESERVE AND REFLECT

By Richard Bennett

Photo courtesy of Abraham Lincoln Presidential Library



PRESIDENTIAL LIBRARY IS NOT a library in the traditional sense, but rather a repository for preserving and making available the

but rather a repository for preserving and making available the papers, records, collections and other historical materials of each president of the United States since Herbert Hoover. Each is strategically located in accordance with the personal sentiments and history of the individual president and each is distinct in its style and vision.

Today, 20 presidential libraries and museums are scattered across the country. Eight are operated under the National Park Service, state or privately funded direction. Eleven have been created under National Archives and Records Association (NARA) supervision, and one – the Richard Nixon Library – was converted from private control to the NARA system.

The 12 NARA supervised facilities represent in succession every president from Herbert Hoover to Bill Clinton and ensure that each subsequent president henceforth will have his records converted to the presidential library system. NARA presidential libraries and museum complexes are designed and maintained as accessible, objective, educational and inspirational living tributes.

Central to the theme and essence of each existing and all future NARA supervised presidential libraries is the symbolic correlation of location, architectural design and building material to the personal characteristics and historical achievements of the presidential honoree. Each is designed to reflect and preserve the essence of the former leader. Although all of the libraries maximize the aesthetic utility of steel, glass, wood and stone, four libraries rely heavily on the qualities of natural building stone to achieve lasting effect.



#### Franklin Delano Roosevelt

Perhaps the best illustration of the reflective relationship of man and building is in the site that inspired the creation of the Presidential Library and Museum system. The Franklin Delano Roosevelt (FDR) Presidential Library located in Hyde Park, N.Y., sits on the grounds of the National Historical Site encompassing the onetime family estate of the 32nd president. Situated in the Duchess County region of the Hudson River valley, the library traces its concept, design and construction to the direct involvement and vision of President Roosevelt. Derived from an original sketch by the president, the building draws heavily upon the quaint architectural style of local Dutch Colonial tradition. Roosevelt drew the first plans for the library and worked closely with government architect Louis Simon to finalize plans. Horseshoe shaped with the three connected wings overlooking a landscaped patio, the farmhouse style features a wraparound, open porch with an overhanging roofline supported

by white columns. The facade is finished with earth-toned indigenous fieldstone and slate. The corner stone of the original building designed for official use during his presidency was actually laid by FDR.

The choice of Dutch Colonial design and Hudson Valley fieldstone point to Roosevelt's admiration for, and connection to, the pragmatic sense of aesthetic function inherent in the simple lines and modest pretensions of the building philosophy of the early settlers of that region. The ideals evident in both his preference of construction design and his philanthropic gestures hint at the example of the American values from which his latter blueprint for social and economic recovery emerged.

#### **Harry S. Truman**

The Harry S. Truman Presidential Library and Museum located in Independence, Mo., reflects the stubbornness and hard-line determinism synonymous with the personality of the 33rd president and of his home

ABOVE: FDR lays the corner stone of the original building designated for official use during his presidency.

OPPOSITE LEFT: Six types of stone tile create the flooring at the Lincoln Presidential Library.

RIGHT: Exterior walls of Truman's library are clad in Indiana limestone.

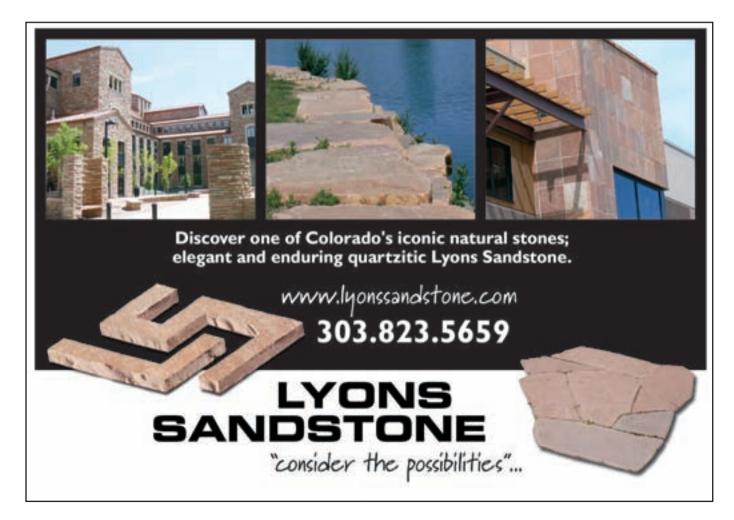


state. Primary architect Edward Neild of Louisiana drew plans for the structure. Neild had been the architect for the Jackson County Courthouse in Kansas City, which was built when Truman was a county judge. The architectural design and choice of building material for Truman's archive complex imitate his predecessor's instinct for the metaphoric value of simple straight lines but demonstrates a

distinct turn to a more modern interpretation. The single-story block with basement design boasts exterior walls clad in Indiana limestone and a covered entrance supported by six symmetrical columns constructed of the same natural stone.

The limestone quarried in the Bloomington region of central Indiana is distinguished for its superior quality. Similar to other Midwestern limestone deposits in formation, age and utility, Bedford – or Salem – limestone is primarily used for high-end exterior construction.

Indiana limestone is prominent in historical buildings such as the Empire State Building and the Pentagon, as well as on modern designs such as the United States Holocaust Memorial Museum and the current construction of the latest rendition of Yankee Stadium.



BELOW: A meditation area is part of the Eisenhower library campus where buildings are clad in Kansas limestone.

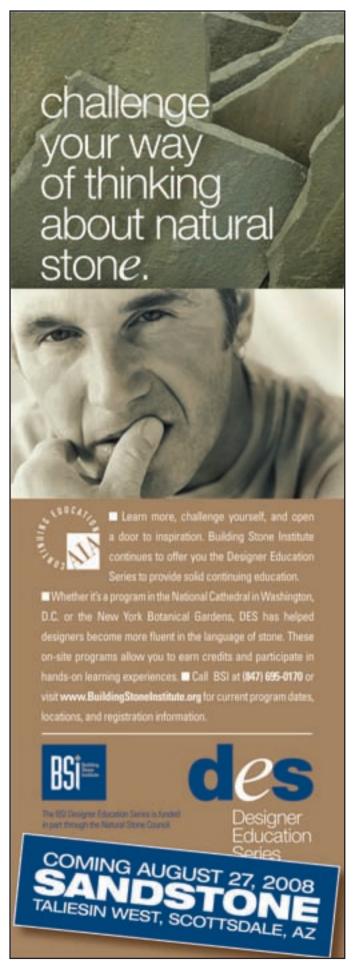
#### Dwight D. Eisenhower

The Dwight D. Eisenhower Presidential Library and Museum is located in the 34th president's childhood home of Abilene, Kan. Appropriately dedicated on Veteran's Day 1954, the complex honoring perhaps the ablest and most universally renowned United States wartime military leader since George Washington was the third NARA sanctioned addition to the presidential library system. It features two separate structures for the library and museum, designed by architect John E. Brink.

The library is a two-story, reinforced concrete structure in a modern design distinguished by seamless exterior lines of Kansas limestone cladding and anchored by interior facades of imported Mediterranean matched in-laid marble. The museum is a single-

story building of similar construction and appearance. Both structures are visually conceived to represent the "Ike's" unique mix of Midwestern plains self-sufficiency, West Point military efficiency and Washington, D.C., political acumen. The Kansas limestone used for the exterior cladding creates a sense of stateliness and serenity consistent with the late president's personal demeanor. It is similar in color, texture and durability to the popular building stones of other Midwestern states such as Indiana and Minnesota. The light earthtoned stone used for the complex was quarried from surface rock deposits dating in the western part of the state to the Mississippian period of the Paleozoic Era and in the eastern section of the state to the Pennsylvanian and Permian periods.







LEFT: Kansas limestone creates a sense of stateliness for the Eisenhower library.

#### **Herbert Hoover**

Though Herbert Hoover preceded Roosevelt as president, his library was actually the fourth to be added to the NARA system. The Herbert H. Hoover Presidential Library and Museum located in West Branch, Iowa, near Iowa City, was dedicated in 1962. The library and museum, in similar fashion to Roosevelt's memoriam, are housed within the grounds of the 31st president's National Historic Site, which commemorates his childhood home and influences. Also located in the complex are his birthplace cottage, his



RIGHT: Ashlar lowa sandstone is part of the modest design of the Hoover library.

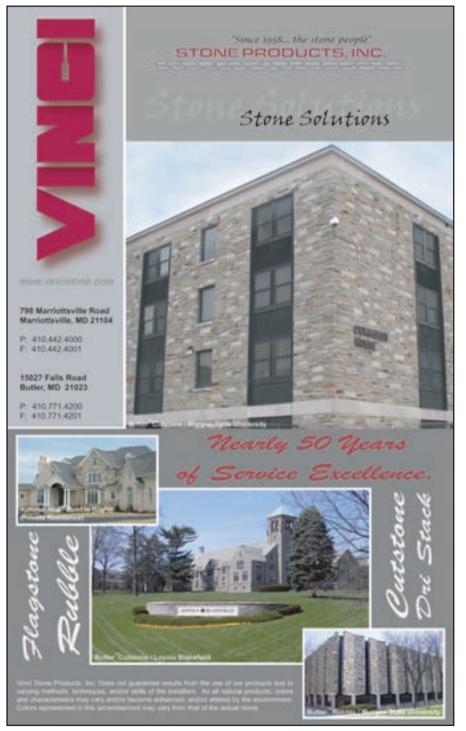
father's blacksmith shop and a Quaker meeting house, all representing Hoover's humble beginnings and conservative American upbringing. The library and museum are housed under one roof, and the building – in keeping with the president's simple background – is traditional in design.

The exterior of the single-story building re-creates on a larger scale the appearance and feel of the Quaker architectural style. The structure is home-like in appearance with an inviting attached portico of white columns and trim and deep-set, heavy, wood-trimmed windows painted white. The desired effect of modest pretense is achieved perfectly by the use of a cladding of Ashlar buff-colored Iowa sandstone. Sandstone is popular as a building stone for its weather resistance, general durability and aesthetic appeal. Iowa sandstone is colored in the softer, lighter tones of the upper plains region, which is lacking in the iron oxide and manganese colorants that create the red and purple striations characteristic of sandstones in the southwestern plains states.

#### **Abraham Lincoln**

One of the most popular presidential libraries, the Abraham Lincoln Presidential Library, opened its doors in April 2005 under the administration of the Illinois Historic Preservation Agency. The accompanying museum opened a few months later. Until 1970, Ford's Theatre in Washington, D.C., was the designated "Lincoln Museum." The buildings are located in Springfield, Ill., in the historic





RIGHT: Hudson Valley fieldstone and slate are indigenous stones used in the design of the FDR library.

BELOW: The limestone on Lincoln's library had to match the Sugar Creek limestone of the original Old State



had to make the steel structure larger in order to use it. We finally found the stone with the correct

quarried in Egypt and fabricated in Italy," Patrick explains.

um columns at the front entry are also made of the Selina Gold limestone. The flooring in the

The main library and muse-

density, color and profile in Italy.

Called Selina Gold, it was actually

museum also utilizes six varying stone tiles in the design.

All of the presidential libraries combine private and public funding with architectural design and visual imagery to reflect and preserve for future posterity the human characteristics and historical achievement of the select few who are called to serve at the highest level of civic responsibility. In each structure, the specific use of building materials commiserate with the essence of the former president honored by its use is essential to its mission.

Perhaps Hoover grasped the significance and eternal value of the NARA Presidential Library System's purpose and goal best in his speech at the dedication of his library and museum: "When the members of the Congress created these presidential libraries, they did a great public service. They made available for research the records of vital periods in American history - and they planted these records in the countryside instead of allowing their concentration on the seaboard..." ♦

**Richard Bennett** is an Atlanta-based freelance writer.

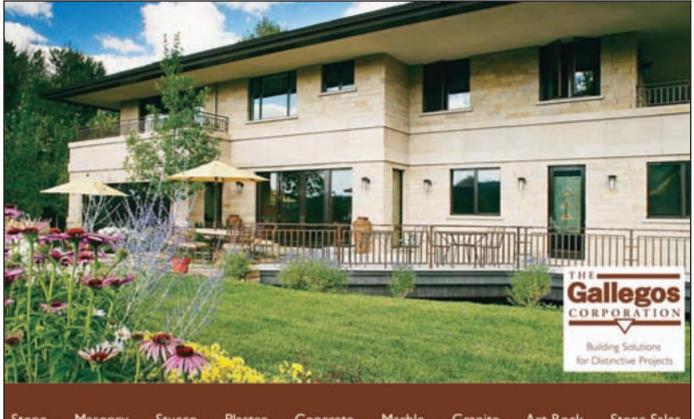


downtown section, near many other Lincoln cultural sites.

When the architects of the Abraham Lincoln Presidential Library and Museum, HOK (Hellmuth, Obata and Kassabaum) of St. Louis, Mo., looked for inspiration, they found it nearby at the Old State Capitol where Lincoln delivered his famous House Divided Speech addressing the polarizing issue of slavery in 1858. It was also in this building that Lincoln served his final term as a state lawmaker from 1840 to 1841. It was here, as a lawyer, that he pleaded cases before the state supreme court until 1860. And it was here, in the Illinois House Chamber in May 1865, that his body was returned from Washington, D.C., prior to final burial in Springfield's Oak Ridge Cemetery.

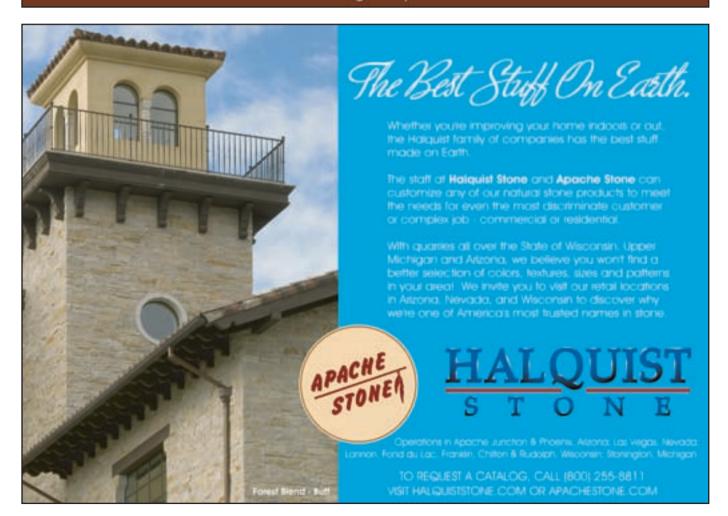
The entrances of the library and museum buildings feature a rotunda reflective of the dome on the Old State Capitol State Historic Site. Built from 1837 to 1840 on the central square in Springfield, the Greek Revival style building was constructed of Missouriquarried, yellow Sugar Creek limestone. The design for the Lincoln Library specified that the limestone match that of the Old State Capitol; however, Sugar Creek limestone was no longer available. According to Project Manager Tim Patrick, the hunt for a comparable limestone of the designated thickness was extensive.

"We found some native stone that was the right color, but not the right thickness. We would have



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# BSI Names 2007 Person of the Year



ABOVE: John Mattke (left), named Building Stone Institute's 2007 Person of the Year, accepts his award from last year's winner John Grubb.

S A PASSIONATE MEMBER of Minnesota's Cold Spring Granite team for more than 14 years, John Mattke lives and breathes the natural stone industry. Perhaps it's his far-reaching vision for the industry's future or his commitment to debunking myths and misinformation about natural stone that make his fervor contagious. From any standpoint, Mattke's dedication to promoting the industry has not gone unnoticed. As a result, Building Stone Institute (BSI) has named him its 2007 Person of the Year.

Recently, Mattke shared his thoughts about the value of BSI, his history and the industry with Building Stone Magazine.

#### What do you see as the benefits of belonging to BSI?

Networking, sharing information, learning, supporting, innovating, growing – none of these things can happen in a vacuum. I am proud to be a part of the shaping of our industry by working with other companies to provide a positive influence.

#### What do you want others in the industry to know about BSI?

There are people within the organization who have ambitious ideas, which have translated into plans that the organization is set to carry out. And, like anything that is worthwhile, you won't get much from the BSI if you aren't willing to invest of yourself, your time, your energy and your support. An uninvolved membership is no membership at all. If you do get involved, you will be met by a large group of quality people who are willing to give of themselves to help you succeed in business and/or your career.

Photo courtesy of Cold Spring Granite



ABOVE: John Mattke feels natural stone monuments are an important use of stone.

#### What are your thoughts or reactions to being named BSI's Person of the Year?

It is an honor for me to represent the BSI and its members as Person of the Year and flattering to be recognized as such. I am genuinely passionate about the opportunities in front of the industry as a whole; I am proud of the role the BSI and its membership will play in realizing them and glad to be a part of it. On the flip side, there are many within the organization deserving of recognition, and I am humbled that I was the one chosen for 2007. I am already looking forward to presenting the Person of the Year award for 2008, so I have the opportunity to personally recognize the accomplishments of another BSI member.

#### How long have you been in the stone industry? Briefly share your journey from beginning to present time.

I began my career with Cold Spring Granite Company (CSG) in 1994. Prior to that time, I spent about five years working on the CSG account for a marketing firm that CSG used, so I was already somewhat involved and familiar with the company's businesses prior to becoming an employee. At CSG, I started in marketing and, through various job changes,

gained experience at the executive level - in operations (both fabrication and quarries), and sales (primarily on the memorial side of the business). I became president and chief operating officer in April 2004.

#### What is the most rewarding aspect of your position at CSG?

I focus my energies primarily on enhancing and shaping the culture of the organization, strategy and brand building, developing strength in people and processes and looking for ways to build on our corporate strengths to enhance shareholder value. I truly love it all, but if I had to choose, my favorite part of the job is seeing the potential in people and watching them realize it. I thrive on building the enthusiasm of people who are learning and accomplishing.

#### How would you describe your years in the stone industry?

I have seen all aspects of it, and I believe it is an exciting time for the industry. We have been very fragmented, not only as individual companies but as stone associations and others related to stone. Now, I see stronger commitment toward unity within the industry and considerable energy by individual companies and associations toward proactively

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#### Person of the Year

Photo courtesy of Cold Spring Granite



ABOVE: Tributes to those who have served and sacrificed for the United States, such as the FDR and Korean War memorials in Washington, D.C., are some of the projects most meaningful to BSI's Person of the Year John Mattke.

improving and growing the industry as a whole. I also like the growing emphasis on doing the right things – whether economically, socially or environmentally relative to how companies are being managed. It is positive and very refreshing.

#### How long has CSG been a part of BSI?

Our company is a long-time member. I don't know the first year we joined, but I would not be surprised if we were one of the charter members of the BSI. There were a few years prior to my arriving at Cold Spring Granite when the company did not belong, but for the vast majority of the years BSI has been in existence, CSG has been a part of it.

# What do you see as the main issues facing the natural stone industry currently, and what are your plans to address them?

I could devote an entire issue to this topic. However, competition from competing products, misinformation and misperception about our industry and our materials, the scale and scope of the green building movement, lack of continuity in our messages to customer/consumers, regulatory issues, labor issues, a generally sluggish economic situation in the United States – all are important and

must be addressed at a variety of levels. Our company has plans to address each of these areas. The BSI, through its own programs and its affiliation with the Natural Stone Council, is addressing most of them as well.

#### What are your goals for the natural stone industry's future?

I have long been a proponent of creating a unified stone industry, sharing a common voice with the strength and conviction to take responsibility for its own future. The only thing holding us back is us, and we are starting to make some real progress toward creating that unified environment. I would like to see the stone industry double in size before I retire, and I see no reason why that shouldn't happen.

# Of the stone projects you've been a part of, what are your favorites and why?

I think all stone is beautiful in its own way, and I can think of many projects that are visually awesome. However, I am partial to the memorials in Washington D.C. – FDR, Korean War Memorial – and the many other state and federal tributes to those who have served and/or sacrificed to create and preserve our way of life in the United States. Those have the most meaning to me. •

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# International Firms Unite to Design with Stone

By K.K. Snyder Photos courtesy of BBG-BBGM

NTERNATIONAL ARCHITECTURE AND INTERIOR DESIGN FIRM BBG-BBGM often uses natural stone to complete or enhance its high-profile projects. Known for designing hotels, resorts, corporate and investment office buildings, residential high rises, mixed-use complexes and restoration projects, the company's portfolio proves that the firm's artistic staff recognizes the aesthetic lure of natural stone.

Founded in 1984 and 1987 respectively, today the combined firm has offices in New York City; Shanghai, China; Sydney, Australia; Washington, D.C.; and Scottsdale, Ariz. They have completed projects around the world, including many that incorporate natural stone into interior design.

Partner Amy Jakubowski says BBG-BBGM frequently uses natural stone in its building interiors to embody and reinforce

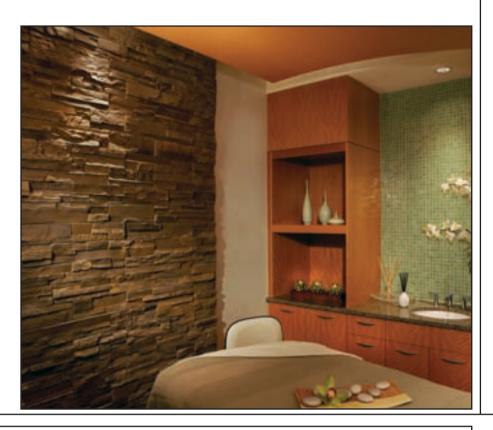
BELOW: Five-colored star marble floors in the The New York Palace Hotel's entry are just one way BBG-BBGM incorporated natural stone into the luxury building's interior design.



RIGHT: The spa at The Carlyle features cobbled stone walls that transform the space into a haven of meditative relaxation for residents.

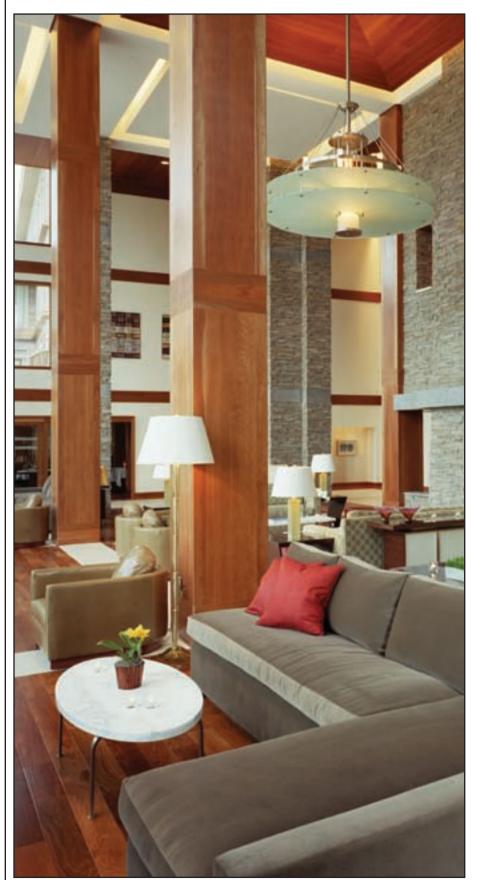
conceptual ideas "rather than as a material for its own sake." The firm's designers have utilized stone just about everywhere, including on walls, floors, thresholds, countertops, bathrooms, kitchens, public spaces and even on furniture and accessories.

"Some of the stones that best lend themselves to interior design include limestone, slate, granite and marble," says Jakubowski, who began her career with BBGM Interiors as a senior designer in 1996 and was promoted to partner in 2003.





#### Designer Profile



LEFT: Tapered columns faced with fieldstone frame a lounge area in The Lodge at Turning Stone.

"Limestone is a smooth, soft stone that provides a touch of elegance, while slate appeals for its warm and earthy tone and texture," Jakubowski explains. "Granite is most commonly used for countertops or tabletops, and marble offers a classic beauty with its natural variations. All natural stones have a place in the interior environment, and it is best to use each special characteristic of the stone to enhance the design."

BBG-BBGM was recently commissioned for the \$12 million renovation of The Mansion Rooms at The New York Palace Hotel, a landmark luxury property known for unparalleled splendor and spectacular views. Natural stone was used generously throughout the renovation, including for elegant five-colored star marble floors in the building's entry. Crema Valencia, Arabescato oro and Port Laurent marbles are accented by red granite and are designed in the spirit of grand European rooms.

"This is a very urban high rise, and we wanted to create a relief from the city, giving a naturalistic feel. The stone provides warmth, and the variations of the slate are beautiful," says Jakubowski, who in her tenure with the firm, has designed and directed a wealth of important projects for Fortune 500 clients such as Morgan Stanley, Pfizer and Paine Weber.

Natural stone is a popular choice among many BBG-BBGM clients as well because it is durable for daily living and regarded as a "high-end" luxury material, she adds. Beauty, durability and longevity make natural stone an excellent material for interiors. The use of stone is a classic approach to a design esthetic used for centuries because of its handcrafted look and feel. Since stone is available in many one-of-

RIGHT: BBG-BBGM created a dramatic and inviting double-height lobby in The Lodge at Turning Stone.

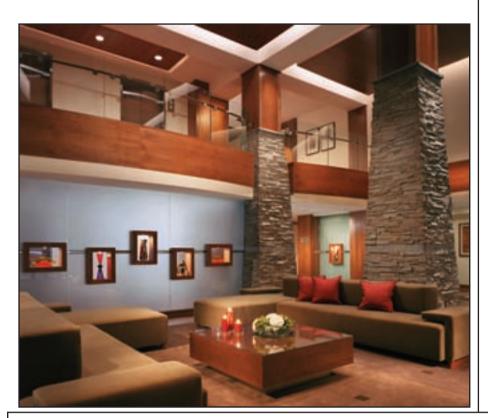
a-kind colors and patterns and can be cut into any shape and size desirable, flexibility in its application exists, Jakubowski says.

Another recent BBG-BBGM project, The Lodge at Turning Stone, nestled among the rolling hills of upstate New York, is designed to offer guests an unparalleled experience of luxury. Glass walls coupled with rustic fieldstone piers and interlocking pieces of cedar shiplap cover the hotel's facade. Just inside, visitors are welcomed in the dramatic and inviting double-height lobby, whose scale and décor evoke a private mansion. Gracefully tapered columns faced with fieldstone frame a relaxed lounge area. And a stoneclad fireplace is a welcoming draw to the Great Room, where even the coffee and side tables feature natural elements.

In Turning Stone's Presidential Suite, sleek honed Jerusalem marble floors are complemented by the soft, white quartzite wall tiles whose soft sheen reflects light, adding a gentle sparkle to the room. The vanity tops are crafted of white marble with amber veins and rest beneath the dramatic demi-vaulted ceiling.

"With Turning Stone, we put heavily textured stone up against wood, done in a classic style," Jakubowski says.

Still elegant but with a different feel, The Carlyle is another BBG-BBGM project utilizing natural stone. A 39-story condominium tower located in the heart of downtown Minneapolis on the banks of the Mississippi River, The Carlyle represents the city's first residential tower, offering urban luxury living found in cities such as New York or Chicago. BBGM provided The Carlyle with interior design services, transforming the residential tower into an elegant living environment.





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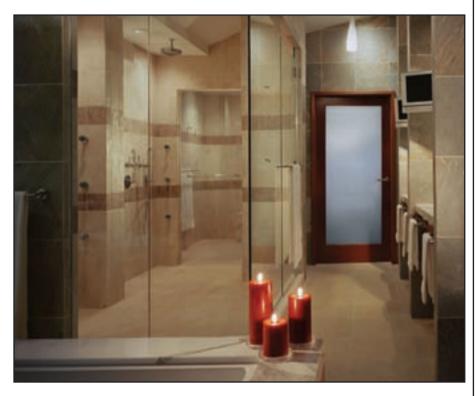
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#### Designer Profile

RIGHT: Sleek honed Jerusalem marble floors are complemented by soft white quartzite wall tiles in the presidential suite at The Lodge at Turning Stone.





The use of natural stone is first seen at the concierge desk, where frosted ribbed glass and white Carrera marble glow in soft shadows. The ceiling, cropped before it meets the wall, seems to be floating over the geometrically pattered marble floor. The Carlyle's spa was also designed with natural elements in mind; lighter toned woods and cobbled stone walls transform the space into a haven of meditative relaxation for residents.

One of the greatest benefits of designing with natural stone is the versatility of how it can be used, Jakubowski says. The strength and durability of natural stone lends itself to interior usage. "Natural stone can be cut into fanciful shapes, applied in intricate patterns, carved into moldings and used as composite surfacing materials," she says. "Each stone type has unique characteristics and the designer's imagination will uncover the next unique use." •

K.K. Snyder is a freelance writer and editor based in Albany, Ga. She can be reached at kkondeadline@hotmail.com.

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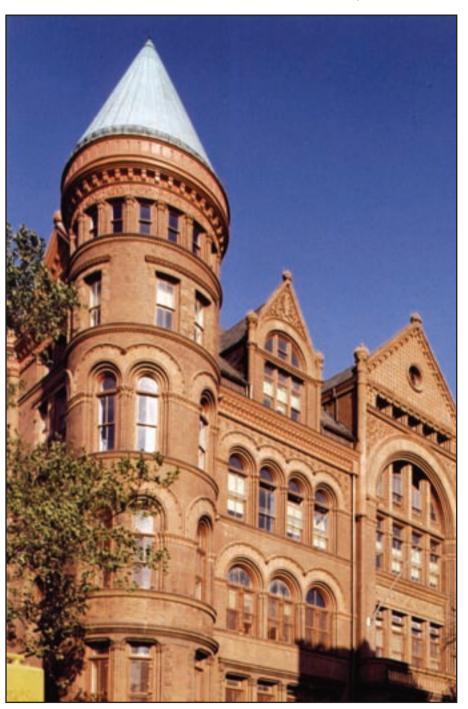
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# Neighborhood Revival Follows School Restoration

By Christina B. Farnsworth Photos courtesy of Ross Muir

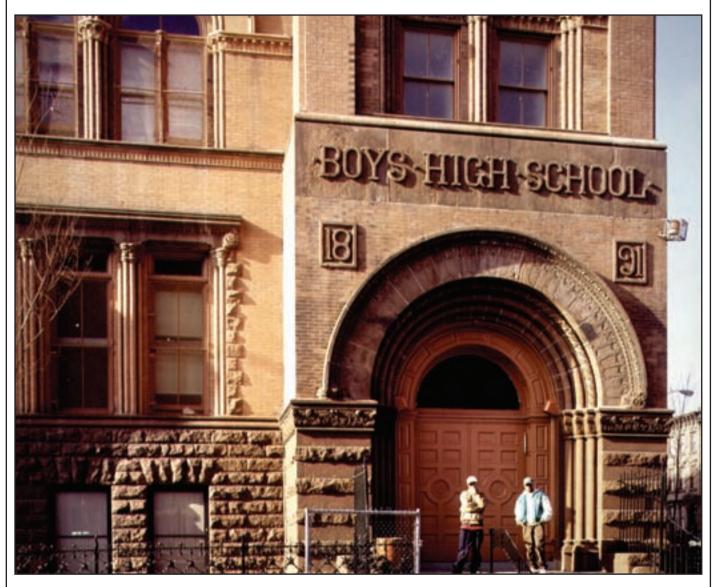


LEFT: Designed by James W. Naughton and built in 1891-92, the Boys' High School is a fine example of the Romanesque Revival style.

HE OLD BOYS' HIGH SCHOOL has illustrious alumnae: author Isaac Asimov, composer Aaron Copeland, singer Lena Horne, home-run hero Jackie Robinson and author Norman Mailer. Less recognized is the school they all attended.

Boys' High School is deep in the heart of Brooklyn's Bedford Stuyvesant (known more simply as "Bed-Stuy") neighborhood. Its site at 832 Marcy Ave., stretches a city block from Madison Street to Putnam Avenue. Today, following its careful \$4.5 million exterior renovation in the mid 1990s, old Boys' High School, Brooklyn, N. Y., has reclaimed its title of "best looking high school" in New York City. Its renewal also served as a catalyst to revitalize the now beautiful brownstone rowhouses surrounding the school, a revitalization process that accelerated in 2000.

Architect Frederick Bland, FAIA, AICP, says the exterior-only renovation took more than a year. All the while, school was in session. In 1996, the restoration won a Building Stone Institute Tucker Award.



as city
Is also

ABOVE: Boys' High School won a 1996 Building Stone Institute Tucker Award for the yearlong exterior renovation that took the school from blight to beautiful.

Bland says the work on the school served as a tutorial to neighborhood residents living in surrounding brownstone homes and facing similar restoration issues. Evidently the lessons stuck – Boys' High School is the headquarters for the annual Bedford-Stuyvesant House Tour and arts/crafts fair. The 29th annual house tour took place in October 2007.

Designed by James W. Naughton and built in 1891-1892, the school is a fine example of the Romanesque Revival style. Naughton (1840-1898), the superintendent of buildings for Brooklyn, was responsible for all of Brooklyn's school buildings built during his tenure from 1879 until his death. The Girls' High School (1887), the Boys' High School

(1891) and P.S. 9, are all designated as city landmarks. But Boys' High School is also on the National Register of Historic Places.

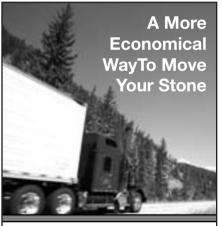
The school was built mid-way through a housing boom that lasted from 1880 to 1920, a period when Romanesque as well as Neo Greco and Queen Ann styles captivated builders. Boys' High School, as well as the Masonic Lodge; The Renaissance and The Alhambra apartments; and Fulton Park were all designed to be reminiscent of London's Bloomsbury Square.

The looming five-story school flaunts all the grand Romanesque details: rounded windows, turrets, gables and a tower. Materials used include an elongated, orangey-red brick; brownstone; and terra cotta, Bland says. The terra cotta, often a weak point on

#### Historical Feature



LEFT: The renovation of Boy's High School, built from a type of sandstone called brownstone, is credited by many for saving its Brooklyn neighborhood.



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old buildings, was in surprisingly good condition, he says.

The original masons, building with native brownstone, Bland says, were unaware that the direction of the stone's grain mattered greatly to its longevity. Bland is managing partner of the architectural firm Beyer Blinder Belle and was the partner-in-charge of the renovation.

Brownstone, a type of sandstone, installed against its grain eventually delaminates, as rain penetrates, freezes and damages the porous stone. Some brownstones are denser than others, depending on the quarry. Bland noted it would be important to the longevity of the restoration to lay up new stone in the same direction as it was quarried. In the past, many masons laid the stone vertically, rather than horizontally. In other words, much of the Boys' High School brownstone had been laid perpendicular to its natural orientation, which made the stone more vulnerable to delamination.

Where replacement is prohibitive, impossible or inadvisable, repair for brownstone calls for creating a stucco-like mixture of ground-up brownstone with which to coat and restore the brownstone surface. Because not all of the stone on the school was damaged, the stone with minor damage

was patched with this stucco-like material. The severely damaged brownstone was replaced with stone correctly oriented.

In some ways, it is amazing that the historic school thrives. When television first debuted in the 1950s, Bedford Stuyvesant was the home of Jackie Gleason's bus driver character and his family and friends in the iconoclastic series The Honeymooners. Just a few years later, Bed-Stuy fell on hard times. The neighborhood had some rocky years with race riots, arson, poverty and decline in the tumultuous 1960s and 1970s. Director Spike Lee has set many of his films, including 1989's "Do the Right Thing," in Bed-Stuy. Famed comedian Chris Rock also grew up in the neighborhood.

Whether one calls it gentrification or revitalization, the old Boys' High School restoration is a beautiful part of an historic area, the lynchpin of the area's revitalization. •

Christina B. Farnsworth is an award-winning real estate writer and author who divides her time between Tucson, Ariz., and Washington, D.C.

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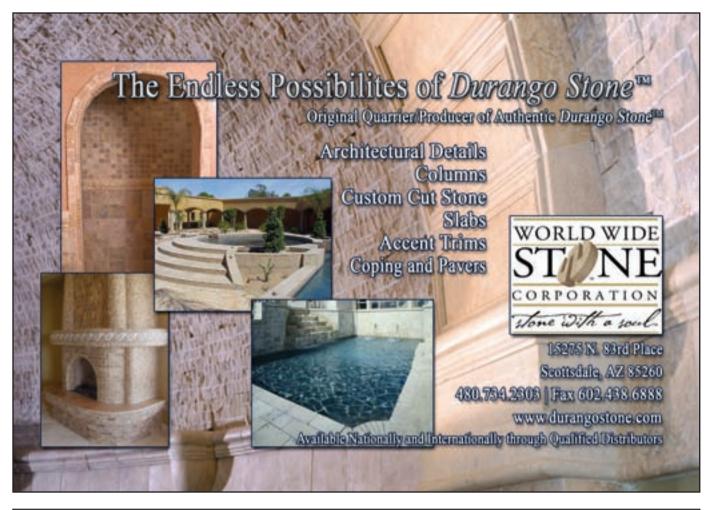
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#### StoneWork Symposium Announced

The 2008 StoneWork Symposium will be held Sept. 11-14 in historic Barre, Vt. The 8th annual open gathering of the Stone Foundation, a community of stonemasons and others involved with stone, stonework and stone art offers a program of interesting and informative presentations and demonstrations, lively discourse, camaraderie and conviviality. Historical stonework and quarry tours as well as workshops in dry stone walling, stone letter carving and traditional lime mortars are available.

This year the symposium occurs in conjunction with the 11th Barre Granite Festival. For information, visit www.stonefoundation.org, or call 505-989-4644.

#### BSI to Sponsor StonExpo 2008

BSI is an Official Sponsor of StonExpo 2008, the No. 1 stone industry event in the United States. The highlights of this new partnership include discounted exhibit space rates and conference registration rates for all BSI members.

Attendee and conference registration for StonExpo is now open at www.stonexpo.com, and exhibits admission is again complimentary. Members of BSI will be able to register for conferences under the Sponsoring Organization member rates, which are heavily discounted through late September. Conference packages and pricing, including the discounted rates, range from \$60 for an individual seminar to \$300 for the full conference package, including all seminars, two workshops and exhibits admission.

Those interested in exhibiting at StonExpo will also find benefit in BSI's sponsorship with discounted exhibit space rates. Plenty of great locations are still available, but StonExpo is quickly gaining momentum and currently boasts a show floor that is 85% sold.

BSI joins the ranks of the Marble Institute of America, the Natural Stone Council, the American Monument Association, Canadian Stone Association, Elberton Granite Association, National Building Granite Ouarries Association and Northwest Gran-

ite Manufacturers Association as Official Sponsors. StonExpo's Official Endorsers are Vitoria Stone Fair/Milanez & Milaneze and Marmomacc/Veronafiere.

This year's show will feature new, expanded international pavilions on the show floor; a new slate of conference sessions; and the allnew StonExchange area featuring industry professionals sharing problems/solutions in an informal setting. Also new this year, Ston-Expo is co-locating with the 2008 AIA Las Vegas Product Show on Oct. 16.

StonExpo 2008, the 21st edition of the show, will be held October 15-18 at the Mandalay Convention Center in Las Vegas, Nev. For more information about StonExpo, visit www.stonexpo.com or call 972-536-6440.

#### VIC International Celebrates 30 Years in the Industry

On May 28, 1978, Vic Green started working from an old metal building and the living room of his home. Deciding it was time to move up in the world, he drove his old Chevy to the bank and was able to borrow \$500 on it. He made the first month's lease payment on an office and warehouse space, bought used office furniture, rented a typewriter and declared himself "in business." Unfortunately, within two weeks the building was determined to be unsuitable and he had to find another location.

At his first trade show in Cincinnati, virtually his entire inventory was in his 10- by 10-foot booth, which delayed shipment of any purchased materials until the show was over.

Over the years, he has faced many business challenges including facing disgruntled employees who vowed that they would put him into bankruptcy and witnessing several competitors who have sold to investment groups. But VIC International is still here, and Green retains 100 percent ownership of the company.

"Recently, I saw something on television about companies that have experienced difficult times in their history and survived," Green said. "They were called 'companies of destiny.' VIC International is a Company of Destiny. We are a very innovative company that has developed a long list of firsts in the industry, such as first catalog, first newspaper

and first to introduce the concept of natural stone floor restoration and maintenance."

In 2007, Green was awarded the Vince Miglorie Lifetime Achievement Award recognizing him as a pioneer in the industry. He credits his dedicated employees, loyal customers and banks that trusted him as well as his family, including his two children who work side-by-side in the business. "Our 30th birthday might be behind us," Green stated, "but we are looking forward to 30 more." For more information visit www.buyVIC.com.

#### BSI Presents Designer Education Series

#### **Sandstone**

Held at Frank Lloyd Wright's Taliesin West in Scottsdale, Ariz., on Aug. 26, participants will see sandstone installation demonstrations and learn more about the fabrication and quarrying as well as care and maintenance of sandstone. Plus, guests will gain an understanding of sustainability issues and be treated to a private tour of Taliesin West. This exclusive property is closed to the public and will be open for DES program participants only.

For more information and to learn how to register visit BSI's Web site at www.build-ingstoneinstitute.org.

#### M S International Inc. Opens Distribution Center

M S International Inc. (MSI), importer and distributor of natural stone, announced that it has opened a new distribution center in Houston, Texas. The facility is expected to be fully operational beginning June 1. The state-of-the-art, 180,000-square-foot distribution center and showroom located on more than 12 acres will be one of the largest natural stone facilities in the country.

This new distribution center, in addition to one in Dallas, will allow MSI to significantly broaden its inventory of natural stone, porcelain, ceramic and quartz surfaces and better serve its customers in the Southwest region. The new facility adds to MSI's national reach with distribution centers across the country. For more information visit www.msistone.com.

#### StoneFest'08 Learning Opportunities

Alexandra Morosco, Morosco Fine Arts, is serving as director of StoneFest'08. The theme of the event is Building Bridges. The event, which runs Sept. 17-20, at the

Marenakos Rock Center in Issaquah, Wash., is the fourth annual gathering of craftspeople whose passion is stone. This educational venue offers a unique experience for the stonemason, the carver, architect, landscape designer or simply those who love to work (and play) with stone. Stellar teams of professionals from the natural stone industry create hands-on learning projects, short presentations, demonstrations and audio/visual talks and discussion forums, 2008 instructors include:

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BSI Member, Richard Rhodes, Rhodes Architectural Stone, Seattle, will give three AIA Accredited Lectures on Stone Specification, The Sacred Rules of Freemasonry, and The Grain of Stone: Implications for Design and Fabrication.

Visit www.stonefest.org for a downloadable PDF registration form.



#### HITTING THE ROAD WITH AKEMI'S MOBILE TRAINING UNIT

The new Mobile Training Unit from Akemi is the ultimate support system for fabricators, craftsmen, architects and designers who desire hands-on training in seaming, repairing, restoring, maintaining and color matching stones. Learn how to get professional results from the experts at Akemi.

In support of distributorships across the United States and Canada Akemi is now scheduling dates for training. Contact National Sales Manager Robert Theofield at 1-877-GO-AKEMI to inquire about scheduling dates with the Mobile Training Unit.

Akemi owner Sal Banchitta and Managing Director Sharron Bauer will demonstrate product use and application in the Mobile Training Unit at the BSI Fall Study Tour, Sept. 14-17 in Richmond, Va. Visit www.buildingstoneinstitute.org for details about the event.

#### NSC Environmental Benchmarking Study Update

In 2007, the Natural Stone Council (NSC) Sustainability Committee engaged in a partnership with the Center for Clean Products (CCP) to assess current industry operations relating to dimensional stone production. This year's effort culminated in the development and initial analysis of the most comprehensive survey to date of the natural stone industry's practices. With this baseline of data, the industry now has the foundation upon which to base factual and robust research on the life-cycle comparisons of stone to other architectural products, as well as areas of likely best practices for the industry to promote further environmental improvements. In effect, this venture has launched the natural stone's journey to the doors of the green building market.

#### **Accomplishments**

Over the last year, the CCP has worked closely with the Sustainability Committee of the NSC to establish environmental benchmarks for key operations throughout the natural stone industry. Environmental benchmarking is the process through which an industry evaluates the environmental,

human health and performance aspects of their operations in relation to best practice. Activities undertaken by CCP staff include:

Conducted site visits of 15 stone quarries in 10 states, including quarriers and fabricators of marble, granite and limestone. These visits and interviews with quarry managers were subsequently used to inform the development of an appropriate data collection instrument.

Developed, tested and distributed a Natural Stone Sustainability Benchmark Survey to more than 1,300 quarry and processing facilities covering both quarry and stone processing operations. Coordinated several survey support mechanisms, such as a webbased survey FAQ and follow-up requests from NSC-member trade associations.

Created and implemented a corrective action plan designed to increase the number of survey responses and improve the overall quality of individual responses.

Designed an interactive database to store submitted industry data and to facilitate the analysis required to create the life-cycle datasets.

Organized a communications subcommittee to emphasize and focus on developing effective outreach materials and efforts to the key audiences, including the green building industry. This committee identified several immediate priorities to develop,

#### Industry News

including brochures, topical presentations on sustainability, and other items.

Revised already existing NSC materials (e.g., CES presentation for AIA continuing education units) to reflect the current emphasis of the NSC to Sustainability, authored two articles, a Stone Expo session proposal, and a brochure on stone and sustainability.

Provided staff research support for emerging industry issues, such as radon, at the request of the Sustainability Committee.

Updated the Advisory Committee on research to date, and solicited feedback on drivers, trends, and issues important for product selection in their design and specifications processes. Their recommendations were incorporated into the plan for Year 2 research and deliverables.

Although the number of companies responding was limited, the overall quality of the data was exceptional. The thoroughness and detail provided by respondents demonstrates support for the sustainability goals and efforts of the NSC. In addition, sufficient data



#### STONE 'HOBBIT HOUSE' WINS AWARD

Archer & Buchanan Architecture Ltd. was selected by the American Institute of Architects (AIA) as one of the 15 recipients of the 2008 Small Project Awards. This award program emphasizes the merit of small-project design; the translation of best disciplinary practices, advancements and elements into current projects and processes; and strives to raise public awareness of the value that architects bring to any project, regardless of budget, size or scope.

The winning submission, Hobbit House, was built for an avid and serious collector of J.R.R. Tolkien books, manuscripts and artifacts. The client desired the construction of a home for a Hobbit, with a design based on Tolkien's writings and imagery. Located in the countryside near Philadelphia, Pa., this cottage was built for the display and archives of the owner's valuable Tolkien collection. The structure's stone was taken from a derelict portion of an existing 18th-century dry stacked fieldstone wall running through the property.

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were submitted to characterize limestone, granite and sandstone quarrying and production. Data for marble production is still being sought due to the limited number of quarries in the United States. CCP staff is in communication with the remaining marble quarries and expect to supplement the marble data soon.

UT will begin compiling the datasets early in June. The final datasets will quantify the environmental costs, benefits and impacts associated with stone production operations and will be used in upcoming work and by the industry to inform the development of management and operational strategies to promote overall improvement.

BSI is a proud Member of the Natural Stone Council.

#### CSI Introduces BIM AudioCast Series

The Construction Specifications Institute (CSI) has launched an AudioCast series focusing on Building Information Modeling (BIM).

"BIM is an evolving technology that often is vaguely defined and little understood throughout the industry," said CSI Executive Director and CEO Walter Marlowe. "CSI's new AudioCast series will feature national and international experts who will clearly explain to average practitioners how BIM affects the way they do their jobs."

The free series, will be posted to http://audio.csinet.org on the first and third Mondays of every month. Each episode will address BIM best practices and will generally run between three and eight minutes.

"BIM is blurring the traditional lines among architecture, engineering and construction disciplines, creating a new view of the built environment and its participants," said Marlowe. "This series will help every segment of the industry gain better insight into BIM, including architects, CAD operators, product manufacturers and others."

The bimWITS AudioCasts will be available online through the CSI Web site (http://audio.csinet.org/), the buildingSMART alliance Web site (www.buildingsmartalliance.org) and iTunes. You don't need an iPod to hear CSI's AudioCast - you can listen online through your computer.

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#### 14 Trow & Holden 45 South Main Street

PO Box 475 Barre, VT 05641 Phone: 800 451 4349 Fax: 802.476.7025 www.trowandholden.com

#### Vinci Stone Products

798 Marriottsville Road Marriottsville, MD 21104 Phone: 410,442,4000 www.vincistone.com

#### **Vogelman West Associates** P.O. Box 921

Avon, CO 81620 Phone: 970.949.4138 Fax: 970.845.7605 www.vogelmanwest.com

#### **OBC** W.F. Meyers

1017-14th Street PO Rox 426 Bedford, IN 47421 Phone: 812.275.4485 Fax: 812.275.4488 www.wfmevers.com

#### World Wide Stone Corp.

15275 N 83<sup>rd</sup> Place Phone: 480.734.2303 Fax: 602.438.6888 www.durangostone.com

## CHRONICLES IN STONE



Richmond's historic hotel, The Jefferson, opened in 1895 but was gutted by fire in 1901. Though the hotel reopened in the early 1900s, by World War II it was facing decline, and in 1944 another fire tore through the building. After years of neglect, in 1980, the historic structure was closed while Richmonders dreamed of its restoration. Reconstruction began in 1983 and the revived hotel underwent another multimillion dollar renovation in 1992. The Washington, D.C., interior architecture and design firm of Copeland Krieger Associates led the project. Today it's unimaginable that the grand structure was ever a blemish on Richmond's historic cityscape.

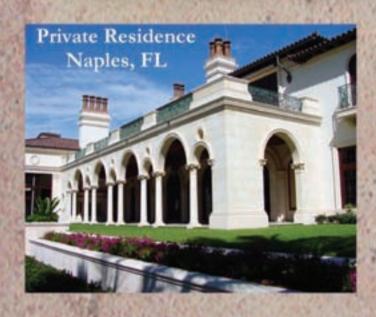
The hotel's foundation is solid granite, up to 36 inches thick in some places. The exterior is original terracotta, Indiana limestone and white brick. Inside, an original statue of Thomas Jefferson crafted in white Carrara marble dominates the Palm Court while original marble floors and columns impress even the most discriminating travelers. In 2001, the hotel was recognized by Forbes Magazine as the "Best Hotel in America," realizing founder Lewis Ginter's dream.

Participants in Building Stone Institute's 2008 Fall Study Tour will get an up close look at this magnificent hotel, Sept. 14-17.

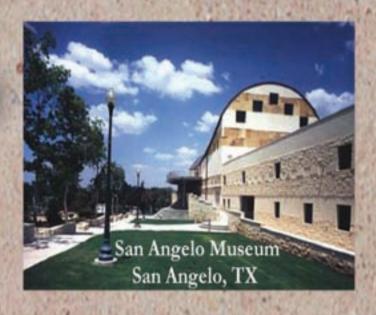
Visit www.buildingstoneinstitute.org for details.

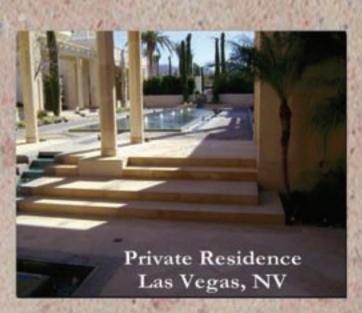


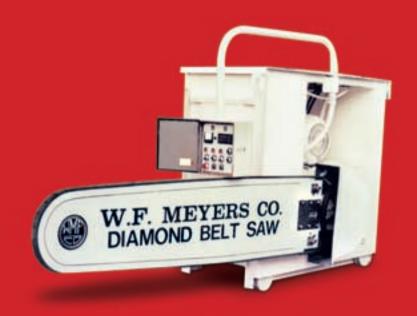
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