

concrete DECOR®

Vol. 18 No. 2
February/March 2018
concretedecor.net



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Decorative Concrete LIVE!

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American Concrete Institute®

Publisher's Letter



Dear Readers,

If you're like me, the Weather App is getting a lot of attention as these dreary winter days continue. And darn if it isn't snowing outside — AGAIN! The bright side is at least the days are getting longer.

Will Mattingly of Indianapolis recently shared a video on Facebook showing Mattingly Concrete and friends. I was impressed, not just by the size of his fleet but the level of organization and cleanliness of his operation. He has definitely used his winter downtime to prepare for a productive work season ahead. One thing I know about life and business — when you take care of your stuff and it's all in its proper place, you spend less time looking and more time doing!

If you visited Decorative Concrete LIVE! at World of Concrete this year, you likely saw good friends and witnessed interesting product applications. Overall, I hope you noticed how concrete delivers solutions for a complete building application. Foundation, slab, walls, cladding, interior finishes, exterior hardscapes — it's all achievable with locally sourced materials that are also extremely energy efficient.

During WOC, a FEMA representative asked me if the ICFs at the Decorative Concrete LIVE! exhibit could withstand Cat 4 or 5 hurricanes. A favorable response from an on-site Fox Blocks representative and information about aesthetic applications for concrete gave that FEMA rep viable solutions for some 11,000 buildings destroyed by recent hurricanes. See the coverage beginning on page 4 for a glimpse of what we did in Vegas this year.

A friend recently asked me why this industry thinks it must compete pricewise with traditional building materials and finishes. Or why it thinks polished concrete prices must be better than VCTs. If decorative concrete is offering a superior solution, shouldn't that value be reflected in pricing?

A lot of good is happening in this industry that is elevating the public's interest in concrete as a holistic building solution. I challenge everyone to keep pushing concrete's boundaries. Don't change what's worked well but keep looking beyond.

Take advantage of your downtime to explore new possibilities such as the speed and efficiency of power trowel polishing concrete. Don't limit carvable materials to a few exclusive small projects. Today's equipment can continuously pump carvable mixes to create affordable aesthetic solutions on large-scale projects too, especially those involving ICFs.

Enjoy this issue. It's chock-full of the kinds of work that keep our industry in demand.

Sincerely,

Bent Mikkelsen
Publisher

On the cover: Bryce Gapinski, product manager for Graco's ToughTek Mortar Equipment, applies stucco to a wall formed with ICFs at the Decorative Concrete LIVE! exhibit at the recent World of Concrete.

Photo by Stacey Enesey Klemenc



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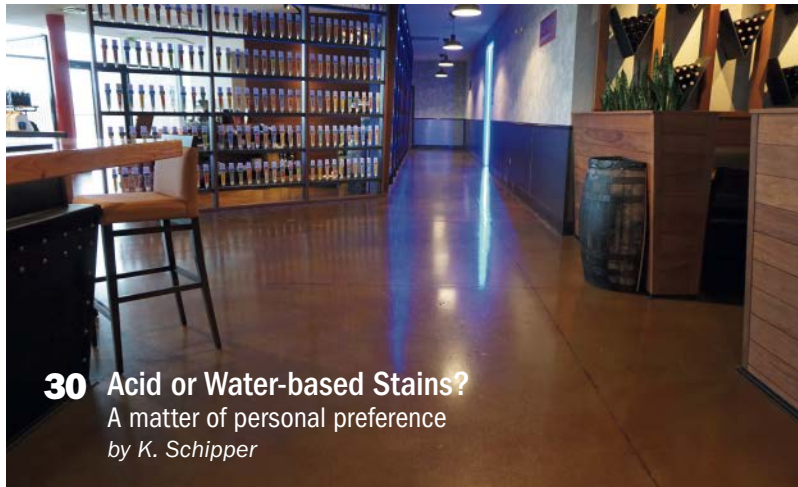


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Brandon Farmer is founder and creative director at Pixter, a small company specializing in video, design and brand development. His resourceful philosophy and cost-effective approach has helped many decorative concrete companies and contractors strengthen their brand

without breaking the bank. He can be reached at brandon@pixtermedia.com or (801) 810-7085. See Brandon's article on page 20.



Greg Iannone is area sales manager for Solomon Colors/Brickform. He has worked in the concrete construction industry for more than 30 years and has provided training seminars throughout the U.S. and Puerto Rico, as well as Mexico and Japan. He can be reached at (801) 376-6750, (909) 434-3274

or giannone@solomoncolors.com. See Greg's article on page 18.



As the co-owner of The Art of Concrete LLC out of Denver, Colorado, **Karen Keyes** has found her niche in the industry exploring the creative side of building and designing with concrete. She helps owners, architects and landscape architects design decorative concrete palettes to enhance space and its

community. Reach her at karen@theartofconcretellc.com. See Karen's article on page 28.



Rick Lobdell, a classically trained artist with a master's in fine arts in painting from the Savannah College of Art and Design, has also studied math and drafting. In this series, the owner of Concrete Mystique Engraving in Tennessee will explain how he conceives his well-known designs. He can be

reached at rick@concretemystique.com. See Rick's column, "Design Theory," on page 36.



Chris Sullivan is vice president of sales and marketing with ChemSystems Inc. and a member of the Decorative Concrete Hall of Fame. He has led seminars and product demonstrations throughout North America. Reach him at questions@concretedecor.net. See Chris' column, "Concrete Questions," on page 34.

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Mall of Concrete Visitors Enjoy Shopping Spree at

DECORATIVE CONCRETE LIVE!

MORE than 5,000 visitors shopped the Mall of Concrete — this year’s Decorative Concrete LIVE! exhibit at the World of Concrete 2018 in Las Vegas — to check out the latest and greatest ways to use concrete to beautify horizontal and vertical surfaces for a variety of retail facilities.

Presented by *Concrete Decor* magazine and the Concrete Decor RoadShow, the nearly 4,300-square-foot retail space was constructed with Fox Blocks’ insulated concrete forms primarily surfaced with SpiderLath’s fiberglass lath system as an underlayment. The exhibit was divided up into four distinct areas that enveloped a stamped and stained central courtyard.

Design services for this project were donated by Webcor Builders. Nearly 60 yards of concrete were installed atop Viper II vapor barrier with support from industry experts including Troy Lemon, Emil Gera, Randall Klassen, Matt Sampson, Ben Wiese



Photos by Concrete Decor staff



and other *Concrete Decor* supporters and staff. MSA Safety Inc. supplied the hardhats and respirators.

One of the exhibit’s major goals was to heighten people’s awareness of concrete’s versatility when it comes to design possibilities. From stamps, stencils and forms to colorants, aggregates and texturing tools, there is a host of products that makes concrete’s finish options as wide as they are wonderful.

Besides exhibiting an expanse of simple to refined architectural finishes, this year’s display also delved beneath the beauty to reveal the products that contribute to concrete’s durability and sustainability, such as vapor barriers, to show the impact underlying products have



Equipment used supplied by:
Aztec Concrete Accessories, Bosch, Concrete Decor RoadShow, Collomix, Diamatic, Elite PlastiForm, Graco, Kraft Tool Co., MSA Safety Inc., Midwest Rake, Multiquip, Pulse-Bac, Putzmeister, Terrco Inc. and Wagner Meters



on an installment’s success and service life.

For more information about Decorative Concrete LIVE! and how you can get involved with the 2019 event at World of Concrete, call (877) 935-8906.



Covered Breezeway Entry, Alley and Courtyard

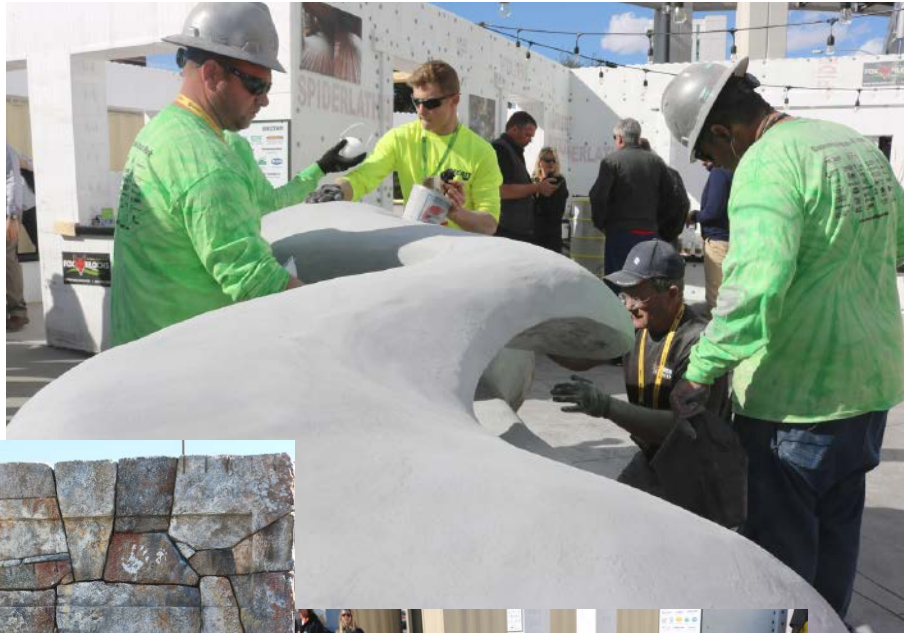
Products used supplied by: Brickform/Solomon Colors, Elite PlastiForm, Fox Blocks, Ghostshield, High-Tech Systems, LiteForm, Multicoat, Nox-Crete, Pacific Palette/Sparkle Grain, Quikrete, Redi-Mix Colors & Sealers, Speedymason, Stone Edge Surfaces, Trimaco, Viper II

Artisans: Tom Ralston of Tom Ralston Concrete, Troy Lemon of Cornerstone Decorative Concrete, Emil Gera of Emil J. Gera Concrete, Tony Zsak and Shane Calmes of Speedymason, Joshua Annis of Joshua James Artistry and Rich Verdone of Onyx Cos.

MOST visitors initially entered Decorative Concrete LIVE! through the breezeway which featured concrete that sparkled, a ceiling made of an ICF system, an exposed wall displaying a waterproof coating for below-grade applications and a mortar-bed panel system covered with thin brick.

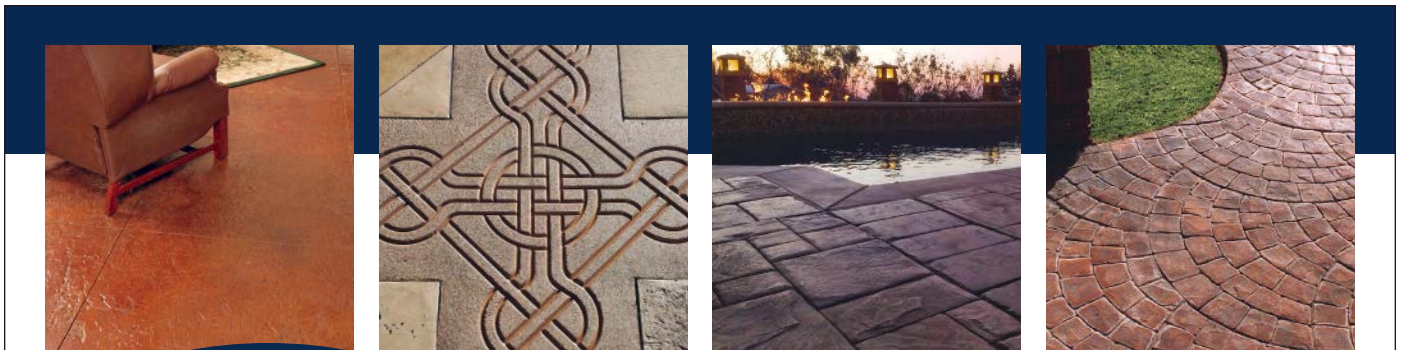
Also as a courtyard draw, a prefab fireplace made by Josh Annis and teammates in six easily assembled pieces was carted in and put together in less than an hour.

Troy Lemon and his team, which



included Troy's son, Josh; son-in-law, Kenneth Klett; and artisan Emil Gera, also crafted a sculpture for the courtyard using a variety of products. These included Stone Edge Surface's Primer 100, Pro Wall Mix and Accent Enhancer,

modified Rapid Set Mortar with a glass-fiber and polyaspartic from Arizona Polymer Flooring, and atomized steel and aluminum from Douglas and Sturgess.



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Biker Bar

Products used supplied by: American Specialty Glass, Butterfield Color, Elite PlastiForm, Floormaps, Fox Blocks, Hi-Tech Systems, Nycon Inc., Nox-Crete, Quikrete, SpiderLath, Stone Edge Surfaces, Trimaco, Viper II, Z Counterform

Artisans: Dave Blasdell of Butterfield Color, Dale Coughlin of Total Concrete Innovations, Keefe Duhon of Concrete Revolution, Rick Lobdell of Concrete Mystique, Jon Bell of JBC Concrete Contractors and Joshua Annis, Troy Lemon and Emil Gera

THE Biker Bar, complete with hogs from Las Vegas Harley-Davidson, was a hub of activity throughout the show as multiple teams applied a variety of finishes to both the floor and walls.

A colorful floor graphic was created using a Floormap stencil and Nox-Crete's Duro-Color Floor System. Created with five colors, the artwork featured the classic Las Vegas sign and the Harley-Davidson logo, a great combination for the World of Concrete crowd.

Besides watching the logos take shape, onlookers could see how densifiers, dyes, surface retarders and sealers were used on concrete surfaces.

"Concrete Decor provided a great opportunity for training and education," says Mike Linn, president of Nox-Crete Products Group. "This exhibit was an inspirational and informative experience for those looking to get into decorative concrete and we were proud to be a part of it."

Keefe Duhon and Jon Bell demonstrated how the Gilpin Falls Stamp from Butterfield Color could be used to make



realistic-looking wood patterns on interior walls, even without coloring the Stone Edge Surfaces product they used for their vertical mix.

On one of the walls on the exterior, Dave Blasdell used Butterfield products to emulate stone and color the stucco. On another, applicators quickly applied a scratch coat using Graco equipment. Lemon and Gera applied the finish which included two coats of Stone Edge Surfaces



color which was later scored to create a “brick-and-mortar” pattern on the top half. On the bottom half, Gera carved a stone pattern, completing the look for that exterior wall.

But that wasn’t all for the busy Biker Bar. Josh Annis crafted a memorial for the recent Las Vegas shooting tragedy, while Dale Coughlin built a countertop complete with motorcycle exhaust pipes. Along the perimeter, a surface retarder from Nox-Crete was applied to a sidewalk that was previously seeded with American Specialty Glass and sealed to bring this exposed concrete application to life.





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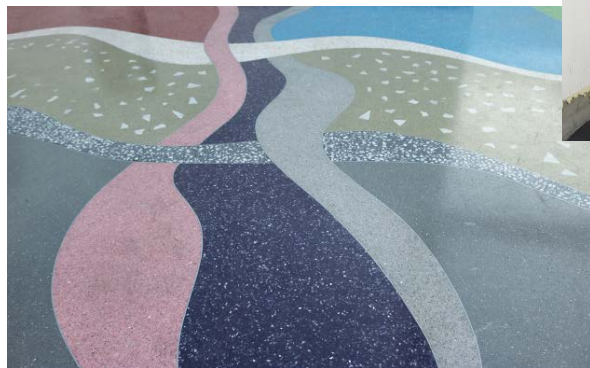
INDUSTRY NEWS

Apple-like Store

Products used supplied by: American Specialty Glass, Elite PlastiForm, Fox Blocks, Fritz-Pak, Hi-Tech Systems, Laticrete, NewLook International, Quikrete, Terrazzo & Marble Supply Co., Trimaco, Viper II, Warmly Yours, Z Counterform

Artisans: Scott Kummer and Miguel Lopez of Visions Below, James Wood and Carl Postma of Arcon Global, Edgar Hernandez of All Access Manufacturing, and Jason Findlay and Jeff Benintendi of NewLook International

ACROSS the way through a covered breezeway, multicolored epoxy terrazzo adorned with stone and glass dominated much of the floor in the Apple-like Store. The Apple-like Store



displayed how creative you can get with a polished floor, especially when terrazzo is involved.

Adjacent to the flowing design, a floor was left exposed so onlookers could glimpse the workings of a radiant system from Warmly Yours. As a lasting touch to the walls, countertop edge forms were used to make window sills.

Much of the pre-show prep work was performed gratis by Arcon Global, an international full-service, designer and installer of one-of-a-kind architectural flooring.

Fast Food Restaurant

Products used supplied by: Fox Blocks, Fritz-Pak, Ghostshield, Hi-Tech Systems, Laticrete, Quikrete, Redi-Mix Colors & Sealers, Speedymason, SpiderLath, Trimaco, Viper II, Z Counterform

Artisans: Edward Fedorowich of Laticrete, Glen Klassen of Fox Blocks/Airlite Plastics Co., Tony Szak and Shane Calmes

THE Fast Food Restaurant next door featured a brand-new concrete protection process from Redi-Mix Colors that included a black stain and a specially formulated urethane to make the drive-through lane more attractive. The restaurant's exterior was



finished with a special mortar bed panel system from Speedymason that lets installers more easily and quickly replicate

brick-and-mortar facades. The made-in-the-USA panel system was debuted at Decorative Concrete LIVE!

On the restaurant's inside and all around the mall, insulating concrete forms representatives demonstrated why ICFs are one of the best building solutions today. Also on the inside, Laticrete representatives applied its premium epoxy coating system to the concrete floor to replicate a commercial kitchen.



Concrete Decor Store

Products used supplied by: Arizona Polymer Flooring, Elite PlastiForm, Fox Blocks, Fritz-Pak, Hi-Tech Systems, Multicoat, Quikrete, Redi-Mix Colors & Sealers, SpiderLath, Stone Edge Surfaces, Trimaco, Viper II, Z Counterform

Artisans: David Lascano and Francisco Duran of Multicoat, Rick Lobdell and Keefe Duhon

THE Concrete Decor Store showed visitors designs that could be drawn and etched freehand on a Stone Edge Surfaces overlay system. Rick Lobdell teamed up with Keefe Duhon to create a floor that featured stained concrete. Lobdell once again worked his magic by hand-drawing a design onto the floor which he then cut into the surface and Duhon colored. “Together, we killed it,” Duhon says.

On the exterior walls, stencils, stains and flexible stucco were combined for a colorful storefront featuring faux designs of Arizona flagstone and brick. The Multicoat team led by David Lascano and Francisco Duran also invited several participants to help with the application. 🛠️



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DCC Names 2018 Award Winners

T.B. Penick WOWs judges with Atlanta Botanical Garden project

THE Decorative Concrete Council, a specialty council of the American Society of Concrete Contractors, announced the winners of its 10th annual Decorative Concrete Awards competition. The winners were recognized at a ceremony Jan. 24 at the World of Concrete in Las Vegas.

T.B. Penick & Sons, San Diego, California, won the best

overall project WOW! Award for the Atlanta Botanical Garden. The Gardens in Storza Woods comprise a richly detailed strolling garden set in a 4-acre mature woodland. Features include stone-clad bridges and overlooks, a formal garden surrounding a water mirror and water stairs, an elevated boardwalk and terraces, all threaded together by a sinuous concrete walkway, embellished with intricate mosaics.

Based on plant morphology, the mosaic patterns were designed by ABG's Landscape Design and Planning Manager. T.B. Penick helped translate the conceptual sketches into full construction documents, including stone color, size, arrangement and installation methodology.

Among the technical considerations were best practices for preservation of critical root zones around the many magnificent, existing hardwood trees. Solutions included a combination of elevated walkways and structural slabs on helical piles to minimize soil disturbance.

Other winners are:

Concrete Artistry, Under 5,000 Square Feet, Second Place
 Patterned Concrete Ontario, Toronto, Ontario, Canada
Pan Am Aquatic Parkette

Concrete Artistry, Under 5,000 Square Feet, First Place

T.B. Penick & Sons, San Diego, California

Atlanta Botanical Garden

In collaboration with the landscape architect, T.B. Penick translated conceptual sketches into full construction documents, including stone color, size, arrangement and installation methodology. Numerous studies and mockups, including Photoshop renderings and sample boxes, were created to assist the client and design team in final material selection.



Cast-In-Place Stamped, Over 5,000 Square Feet, First Place
Bomanite of Southeast Asia, Quezon City, Philippines
Oasiz Hotel

Bomanite of Southeast Asia used Bomanite color hardener and imprinting tools to create more than 21,500 square feet of colorful stamped concrete at the upper-end Oasiz Hotel resort in Bhutan, Philippines. Stamped concrete can be found on the driveways, walkways, parking lots and pool decks of this island getaway.

Cast-In-Place Stamped, Over 5,000 Square Feet, Second Place
 Bomel Construction Co., Anaheim, California
Great Wolf Lodge



Cast-In-Place Stamped, Under 5,000 Square Feet, First Place
Salzano Custom Concrete, Centreville, Virginia
Faux Bluestone in Overton

Tired of the high maintenance of their existing stone pavers, the clients opted for multicolored stamped concrete with grouting detail in an Old English Slate pattern and a zero-shine sealer. The installation included an upper patio, stone seat wall, steps to the pool and a new pool deck. They kept the original natural bluestone pool coping.

Cast-In-Place Stamped, Under 5,000 Square Feet, Second Place
 Salzano Custom Concrete, Centreville, Virginia
Four Tier 19th Hole



Polished, Under 5,000 Square Feet, First Place
Hyde Concrete, Pasadena, Maryland
80 M St.

When the owner of 80 M St., a busy LEED Gold 285,000-square-foot building in Washington, D.C., decided to renovate the lobby, he went with polished concrete. The primary challenge was combining the old and new while maintaining 24-hour access for employees and visitors. To blend the work, cold joints were cut and filled with a custom color caulk to match the new slab.

Polished, Under 5,000 Square Feet, Second Place
 Concreate Inc., Midlothian, Virginia
Shyndigz



Polished, Over 5,000 Square Feet, First Place
Royale Concrete, Fairfield, Iowa
Heavy-duty Truck Repair Shop

The owner of a large truck repair shop wanted his new 23,500-square-foot floor to reflect the shop's high-quality work and attention to detail. The plan was to retain the tightly troweled surface and refine that to a polish, instead of the more aggressive method of cutting the top and opening the floor up. It was taken to an 800-grit polish.

Polished, Over 5,000 Square Feet, Second Place
 Musselman & Hall Contractors, Kansas City, Missouri
Kansas University School of Business, Capitol Federal Hill

BUSINESS & INDUSTRY



Cast-in-Place Special Finishes, Over 5,000 Square Feet, First Place

Trademark Concrete Systems, Anaheim, California

Waldorf Astoria

To create a dramatic first impression for hotel guests, Trademark installed white color hardener, green integral concrete with seeded granite and natural stone paving in sets of three stacked 26-inch wide bands, each with a different finish. The 8- to 10-inch varying thicknesses of the paving made the formwork on the project especially difficult.

Cast-in-Place Special Finishes, Over 5,000 Square Feet, Second Place

Trademark Concrete Systems, Anaheim, California

Wilshire Grand



Cast-in-Place Special Finishes, Under 5,000 Square Feet, First Place

Bomanite Malaysia, Penang, Malaysia

Queensbay Sculpture Garden

The Queensbay Sculpture Garden and walkway feature nearly 3,500 square feet of exposed aggregate to highlight the entrance of a new seafont development on Penang Island, Malaysia. The project's focal point was a concrete planter and bench made with black color and black aggregate. Alternating light and dark color bands radiate from the planter and lead to a textured concrete sidewalk resembling travertine stone.

Cast-in-Place Special Finishes, Under 5,000 Square Feet, Second Place

T.B. Penick & Sons, San Diego, California

Atlanta Botanical Garden



Polished Overlays Under 1/4 Inch, Over 5,000 Square Feet, First Place

Sundeek of Austin, Austin, Texas

Student Housing – University of Texas at Austin

The Student University Housing, a 20-story high-rise one block from the west campus of the University of Texas at Austin, involved 6,500 square feet of overlayment. One of the greatest challenges was logistics, from coordinating efforts for a fourth-floor pool deck to working with the other trades. The pool deck was coated with a geometrical hand-taped pattern in Sundeek Classic Texture and colored with Bone White and Indian Wheat.



Polished Overlays Under 1/4 Inch, Under 5,000 Square Feet, First Place

Sundeek of San Antonio, San Antonio, Texas

Brock Residence

The Sundeek crew prepped the surface with a mechanical grind and pressure wash before hand-taping a custom pattern and applying custom colors. A double-lane road with yellow striping was created on each side of large garage doors and a checkered flag area on each end was installed to highlight a vintage car collection. Additional grit was broadcast for safety.

Polished Overlays Under 1/4 Inch, Under 5,000 Square Feet, Second Place

ATD Concrete Coatings, Arlington, Texas

Parr Park Sprayground

Vertical Application, Over 5,000 Square Feet, First Place

Largo Concrete, Tustin, California

*University of Southern California
Michelson Center for Convergent Business*

The Michelson Center, a five-level, 225,000-square-foot research laboratory and classroom building, features one basement level and four levels above grade to house high-tech medical equipment. The building's exterior features 332-foot-tall concrete arches at both entrances and exposed board-form architectural finish on the interior face of the perimeter walls. The project involved more than 20,000 cubic yards of concrete.



Vertical Applications, Over 5,000 Square Feet, Second Place

*T.B. Penick & Sons, San Diego, California
Apple Store Union Square*



Countertops, First Place

Hyde Concrete, Pasadena, Maryland

Private Residence

One side of this one-piece 850-pound countertop, which measures 12-feet-by-50-inches, is cantilevered over the cabinets by 12 inches to allow for seating. A very large farm-style sink was undermounted near the island's center and the contractor had to create a support inside the cabinet to avoid any long-term structural issues. The piece was post tensioned for additional strength.

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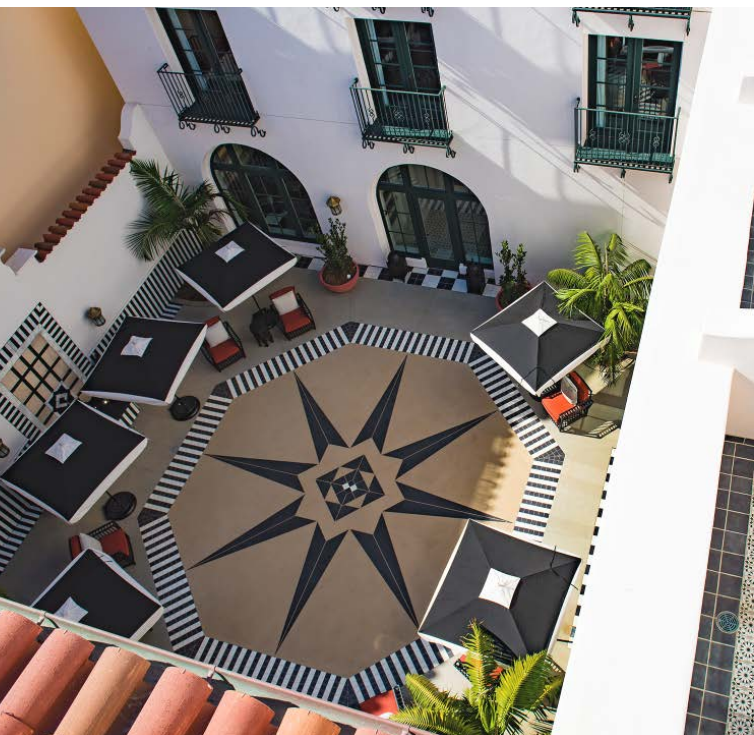
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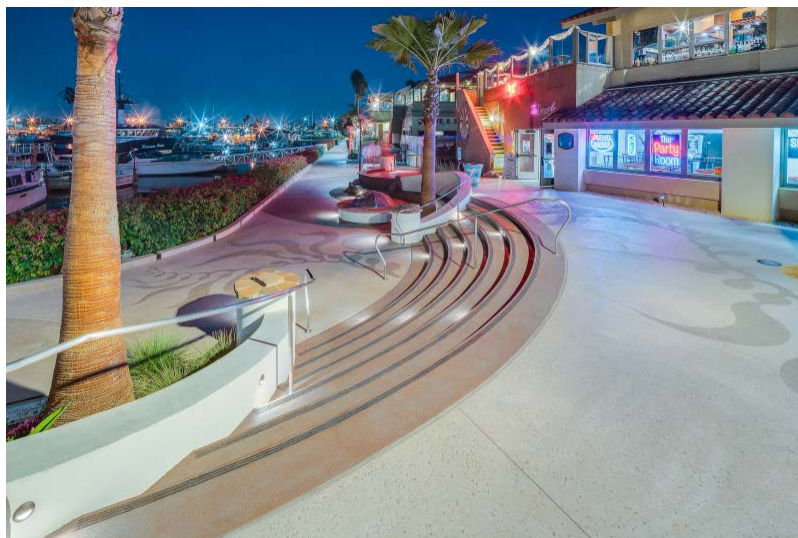
Stained, Over 5,000 Square Feet, First Place
Trademark Concrete Systems, Anaheim, California

La Entrada de Santa Barbara
 Originally built as the Hotel Californian in the 1920s, the existing hotel was restored to its original condition with ground up luxury hotel additions and a new parking structure. The owner was adamant about having crisp, clean, saw-cut joints with no stain within the joints. This was made possible with Ram Board protection paper, expansion foam and thousands of feet of tape.

Stained, Over 5,000 Square Feet, Second Place
 T.B. Penick & Sons, San Diego, California
Unity Plaza

Stained, Under 5,000 Square Feet, First Place
Decorative Concrete Resurfacing, Ballwin, Missouri

The First Presbyterian Church of St. Louis
 As part of resurfacing and staining a floor for a church in St. Louis, a prayer walk was installed. The feature is a labyrinth colored differently than the main floor in a pattern that included detailed lines as pathways to walk in prayer and meditation. The design required taping two very exact measurements.



Multiple Applications, Under 5,000 Square Feet, First Place
T.B Penick & Sons, San Diego, California

Ventura Harbor Village
 Located by the beaches of the Channel Islands, Ventura Harbor Village is a popular tourist attraction with seaside boutiques, art galleries, restaurants and entertainment venues. The project's third phase included using the Lithocrete Sedimentary system to transform the large entry into a modern, visitor-friendly area with seating, tables, planters, artwork, a grand staircase, new entry signage and a firepit. A salt finish was used throughout.

Multiple Applications, Under 5,000 Square Feet, Second Place

Unique Concrete, West Milford, New Jersey
Bloomington Municipal Building

Multiple Applications, Over 5,000 Square Feet, First Place

Trademark Concrete Systems, Anaheim, California

Wilshire Grand
 At 73 stories, the Wilshire Grand Center in downtown Los Angeles is the tallest building in America west of the Mississippi River. Trademark installed all the decorative hardscape for this enormous project that houses an intercontinental hotel, office space and several restaurants. It had many challenges associated with inner-city construction, including no lay-down area. All deliveries had to be received off hours. There also was no tower crane or man lift, just one service elevator.



Multiple Applications, Over 5,000 Square Feet, Second Place

Tie between Edwards Concrete Co., Winter Garden, Florida, and Bomanite China, Beijing, China
Tanger Outlet Center and Shanghai Disney



**Architectural Cast-in-Place Concrete
Over 5,000 Square Feet, First Place**

**Patterned Concrete Ontario,
Toronto, Ontario, Canada**

Lock 8 Skate & BMX Park

Located beside the Lock 8 Canal, the Lock 8 Skate and BMX Park has a design inspired by the ships that pass through the waterway. More than 11,000 square feet of concrete comprise this project, including 6,500 square feet of concrete park ramps as high as 8 feet, back-falling ramps, colored ramps and nearly 5,400 square feet of shotcrete elements.



Concrete Artistry, Over 5,000 Square Feet, First Place

T.B. Penick & Sons, San Diego, California

Unity Plaza

Featuring white cement, seeded aggregate, broom finishes and a quarried stone finish, Unity Plaza in San Francisco is a hub that connects businesses and residents. The project consists of 1,300 lineal feet of decorative saw cuts and an additional 2,900 LF of structural saw cuts that took a week and a half to sandblast. Unique colors and textures were achieved using Lithocrete paving materials.

**Concrete Artistry,
Over 5,000**

**Square Feet,
Second Place**

**Patterned Concrete Ontario,
Toronto, Ontario, Canada**

*Lock 8 Skate
& BMX Park*



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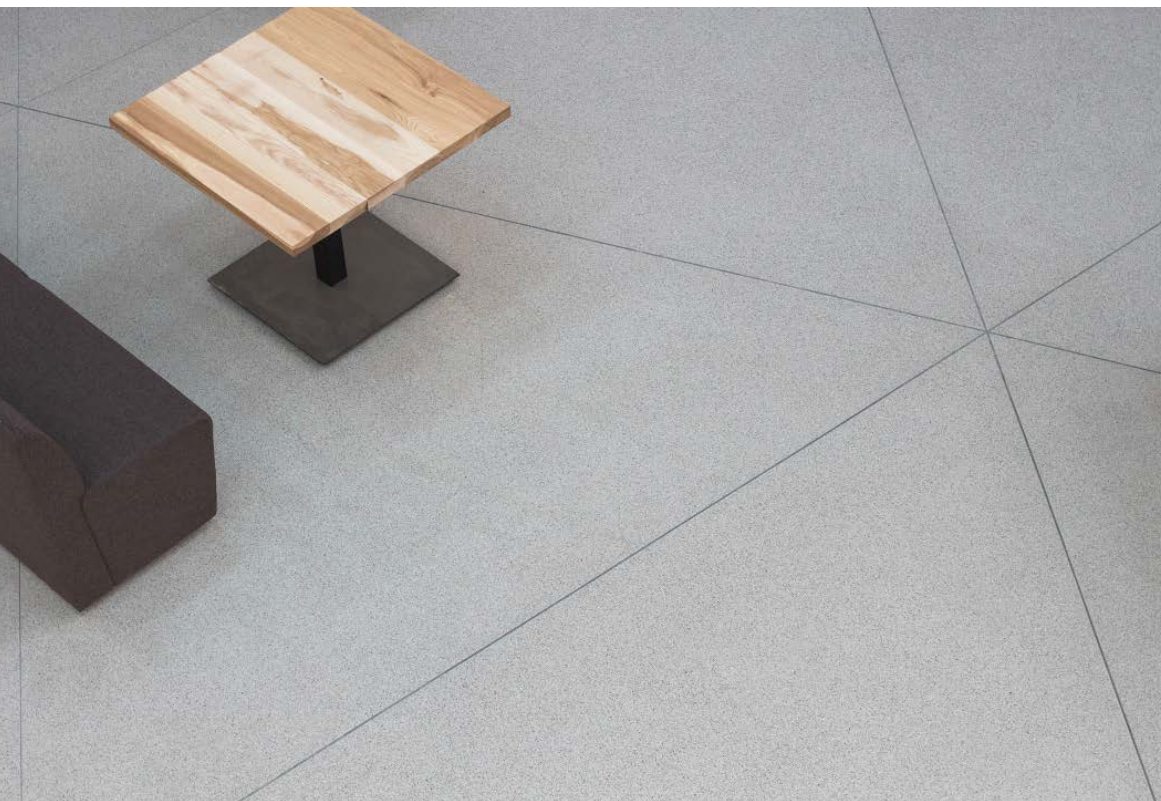
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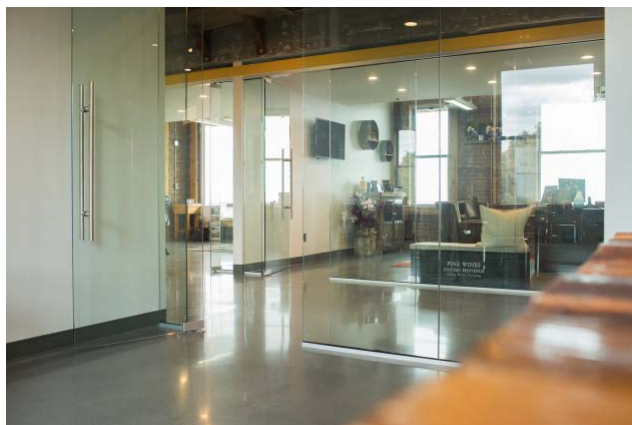


Polished Overlays Over 5,000 Square Feet, First Place

**Bay Area Concretes,
Livermore, California**

Nvidia

Originally designed for polished concrete, this project instead entailed using Aggretex to produce a consistent finished product. The floor spans more than 220,000 square feet and reflects a continuous triangular pattern with nearly 16 miles of stainless-steel strips inlaid between the gray and white terrazzo finishes. Challenges included a terrazzo cove base in the kitchen and poured-in-place terrazzo stairs finished with slip-resistant strips.



Polished Overlays Under 5,000 Square Feet, First Place

Concrete Expressions, Clarinda, Iowa

Caston Development Offices

Originally a hospital, this six-story renovated office building had a floor that had been through several years of changes and was covered in cracks, voids, debris and old adhesives. After cleaning the surface and repairing the many structural defects, epoxy and sand was put down to prepare for a polished overlay. Once installed, the overlay was polished, stained and densified before guard was applied.

Polished Overlays

Under 5,000 Square Feet, Second Place

Redimere Surface Solutions, Danville, Illinois

Taylor Residence, St. Kitts



Project Video, First Place

T.B. Penick & Sons, San Diego, California

Ventura Harbor Village

See a video of this project at bit.ly/2GEsOrl

Project Video, Second Place

Decorative Concrete of Virginia, Lynchburg, Virginia

Ballast Point

The DCC is composed of contractors, manufacturers and suppliers of decorative concrete products. The council is dedicated to improving the technical and business expertise of the contractors that pursue this specialty market. To enter the 2019 awards competition, go to www.asconline.org or call (866) 788-2722. 🖱



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Strong Relationships are Key to Success

by Greg Iannone

WE live in a time where so much of our business, for better or worse, is conducted electronically.

On the positive side of the ledger is the fact that information can be searched and retrieved at the speed of a simple mouse click. Conversely, there are times where we may not know exactly what we are looking for or are confused by what we're finding. It's then that we desperately need human contact for further explanation, only to realize we aren't quite sure who to call or that we haven't developed a good working relationship with our local supplier.

There are several questions contractors should be asking when deciding from which material supply house to entrust their product purchases. These same questions, or very similar questions, should be asked by material supply houses when determining which manufacturer they should choose to do business with.

1. Why do I choose to purchase products from this company? What sets it apart from the rest?
2. Does it provide value to my business or just product?
3. Does it have sufficient inventory, or does it constantly need to "special order?"
4. Maybe most important, are they helping me grow my business?

People need people who know

I'm a firm believer that people buy from people and that building relationships is still paramount in our industry. However, times have changed from buying from "friends" simply because we like them. Now, people not only need to build relationships, but they need to be technically proficient with the products they represent. This is just one thing that will help set their company apart from the competition.

Does my material supplier provide value to my business or is it only interested in selling me product? What is it doing to bring value to my business? Are representatives accessible



when I really need them and are they available for:

- Troubleshooting projects
- Keeping abreast of industry trends
- Providing solutions or the forum where solutions can be found
- Facilitating training on product systems

There will come a time, if it hasn't happened already, where you'll need some assistance, whether it's technical help and support, or perhaps just a fresh perspective. This is where your material supplier can really set itself apart from the rest. This is a time where it can provide you with real value, tangible or otherwise. This is the time where real relationships are forged and solidified. Relationships that aren't built on lowest price but on added value. These are the working relationships that will stand the test of time.

I have talked about this in previous articles, yet I find it vital that we all understand the working dynamics and relationships at play here. We are all in this together: contractors, material suppliers and material manufacturers. For our industry to grow and be sustainable, we need to align ourselves. By working together, we can achieve

great things. We need to realize that the closer we are in this relationship, the better off we will be.

Inventory control

There was a phrase tossed around quite extensively in the early 2000s: JIT inventory control, as in "just in-time" inventory. It loosely meant that manufacturers would keep little inventory on the floor and would manufacture product based upon historical trends and forward thinking. This can be highly effective in keeping inventory costs down but requires a very high degree of accuracy in forecasting what, when and how much to manufacture. When done well, it can significantly reduce inventory costs and increase profits. Done poorly and there's an overabundance of some items and a shortage of others.

If we're being completely honest here, our industry doesn't have the best track record for planning our decorative purchases well in advance. Taking what we have just learned about JIT inventory, we can see how lack of communication from manufacturer to supplier and supplier to contractor can snowball in a hurry and be disastrous on the job site.

On the other hand, where a

contractor and material supplier have developed a strong relationship with good communication and trust and have also built a hearty relationship with the manufacturer, most of these inventory problems can be significantly reduced or eliminated altogether. Don't believe me? Ask one of our industry's most successful contractors, Tom Dombalis, president of Atlantic Coast Concrete, about his material supplier and material manufacturer relationship and how it has been a benefit to his business. You can find him on LinkedIn.

It takes three

Lastly, is my material supplier helping me grow my business? What is he or she doing to tangibly assist in my business's sales growth? If the material supplier has been asking his material manufacturer the same types of questions as the contractor has been asking of him, then this could be the making of a beautiful relationship. This is where one can really shine and differentiate oneself from the competition.

If a contractor and material


supplier have taken the time to build the type of relationship that we have mentioned here, and the supplier and manufacturer have done likewise, then why not put it all together? We should never be afraid to develop a relationship with all parties in the supply chain — contractor, supplier, manufacturer.

If, as a supplier, you're worried that the manufacturer may "sell direct," then why are you purchasing from him in the first place? This relationship of trust is built from the very beginning and nurtured as outlined here.

I guarantee you that the best types of manufacturers have sales tools, sales aids, programs, lead generators and architectural relationships, to name just a few. When fully implemented, these tools are not designed to sell product, but rather promote value.

When the relationship circle is complete between manufacturer, supplier and contractor, great things can happen. Manufacturers often receive calls from custom home builders, architects and others looking for quality contractors to complete their

project, custom home or hardscape. Who do you think the manufacturer is going to recommend? The contractor who he knows very little about or the contractor who he has built a strong relationship with through his supplier?

This also can work in the other direction. Many times quality contractors are called by their repeat clients looking to entrust their projects with someone they can trust. Who is the contractor going to use for these projects? A supplier with whom he has no relationship or a trusted supplier with whom he has worked side by side and can provide the products and systems the contractor has come to know and trust? 

Greg Iannone is area sales manager for Solomon Colors/Brickform. He has worked in the concrete construction industry for more than 30 years and has provided training seminars throughout the U.S. and Puerto Rico, as well as Mexico and Japan. He can be reached at (801) 376-6750, (909) 434-3274 or giannone@solomoncolors.com.

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TRAVERTINE TEXTURE



Solid Branding: Tips on Video and Content

by Brandon Farmer

DECORATIVE concrete can be complicated, and there is a lot that goes into a successful installation. But at each project's finale, you move onto the next job where you'll save the day for another customer. Historically, this call to heroism has occurred through word of mouth, a phone call or perhaps an ad in the newspaper. Today, however, "content is king" and we are fighting a "context war."

Context, in other words, is engagement. It's scaling interactions and associations with your company or product to a point where trust is developed with your brand. Incorporating marketing materials into your business and keeping them current is an important step in keeping the decorative concrete industry relevant, understood and appreciated. With the right context, your audience will grow. Clearly communicating complex solutions encourages potential and current customers to appreciate your craft. It will inspire them to hire you.

If getting information out into the digital stratosphere is one of the most important ways to drive new business, what are some of the ways you can do it? How do you develop content? And why is it so important?

Videos are a must

Video production and distribution were once bulky and expensive processes, but those days are long gone. For small businesses, there's no need to hire a camera crew or an audio guy or to rent bulky lighting just to create video content. Simply point and shoot with your phone.

Video is taking over the internet and online viewers prefer relevant subject matter over a high-end production. What's important is that you get your presence out there. If you can manipulate your phone well, you'll be surprised at how much this can help your business. Smartphone cameras today can go toe-to-toe with video cameras from just five years ago.

If you feel the need, you can raise



Photo courtesy of Vrandon Farmer

the quality significantly by investing somewhere between \$600 to \$1,800 for a digital single-lens reflex camera or digital video camera. Regardless of which equipment you use, distribution is just a couple of clicks away and it's no longer controlled by a few media conglomerates. Posting your videos to top video sites such as YouTube, Vimeo, Facebook or Instagram allows you to reach people all over the world, for free!

To target a specific audience, you can step it up a notch with paid advertising through those sites. Linking these same videos on your website, social media pages and affiliate sites will help increase views and traffic. It will also improve the search ranking of your website through Google.

Your audience will watch if a video speaks to their interests and answers their questions. Popular approaches include how-to videos, installation projects and FAQs. Keep videos short, about two to three minutes each, and be sure to include a call-to-action at the end, such as encouraging viewers to visit your website or give you a call.

Post regularly on social media

There are many ways to help your content stand out from the crowd, but the simplest and most effective ways are authenticity and consistency. Post regularly to various social media channels and create content that genuinely adds value to the audience you're hoping to attract.

Post items such as tips and tricks, how to pick the right color for your project or go over different types of products like epoxies or overlays. Keep the posts coming, and people will find you. You'll stand out like the brightest color in a metallic epoxy floor.

Instagram is great for decorative concrete because of its community of craftsmanship, intriguing visuals and artisanship. LinkedIn, a business-oriented site where you can address informational topics, attracts a more professional audience where you can reach decision-makers and business owners. Facebook is good for organizing training events or for more casual social engagement.

The modern consumer trusts transparency and content when given freely. The operating word here is

“given.” Resist the urge to try to get something out of their engagement, like an email address, event sign-up or buying a sale item. Just put the information out there and it will attract potential customers. In social media marketing, good guys finish first.

Make sure your social media channels all share the same

Resources

Vector Graphics/Icons

Vecteezy.com (Free)
NounProject.com
(Free w/ artist credit)
FlatIcon.com
(Free w/ artist credit)

Stock Photography

Unsplash.com (Free)
Pixabay.com (Free)
Pexels.com (Free)
MorgueFile.com (Free)
Photodune.net
Stock.Adobe.com/
Images
iStock.com
Shutterstock.com

Royalty-Free Music

AudioJungle.com
PremiumBeat.com
AudioNetwork.com
Pond5.com
MusicBed.com

Helpful Social Media Apps

Unfollowers
Hootsuite

Video Assets & Templates

VideoHive.net
Stock.Adobe.com/Videos
Pond5.com

look and feel. They should be consistent in branding, content and tone of voice. Where appropriate, tailor your posts and messaging slightly, as certain demographics use LinkedIn differently than Facebook, and vice versa. There should, however, be consistency in your content and messaging enough for people to recognize and relate to your brand, regardless of where you post. Above all, make sure your profile photo is clear, not too small and accurate to your company logo.

Closing thoughts

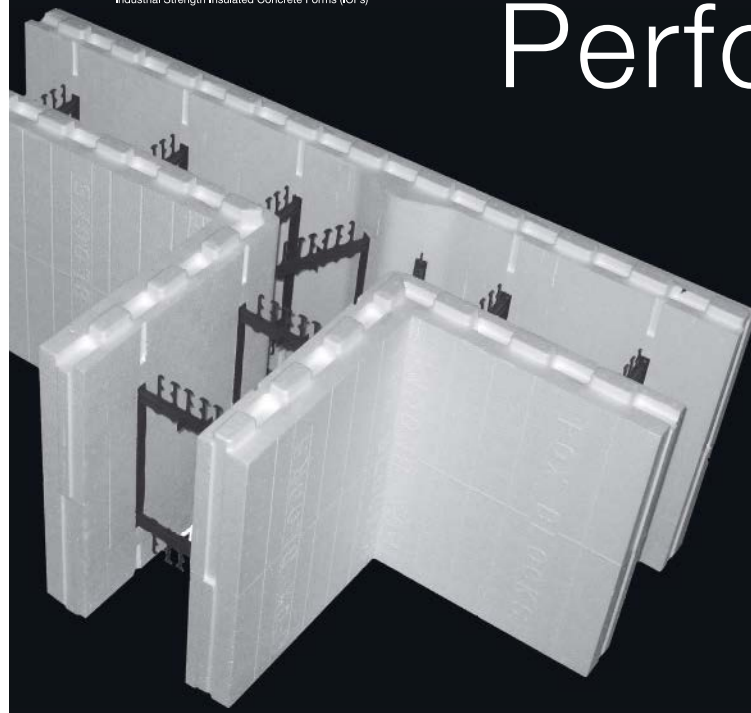
Whether someone is looking for tips on their own DIY project or a professional for hire, they stumbled across your content and you're now their expert. Videos, articles, social media posts, brochures and other marketing materials build trust with current and potential customers.

Essentially, by putting content out there, you're demonstrating to both potential and current customers that you are the right person for the job. You exemplify the benefits of working with you and show how you are professional, easy to talk to and knowledgeable. 🖊️

Brandon Farmer is founder and creative director at Pixter, a small company specializing in video, design and brand development. His resourceful philosophy and cost-effective approach has helped many decorative concrete companies and contractors strengthen their brand without breaking the bank. He can be reached at brandon@pixtermedia.com or (801) 810-7085.



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Cordless saw likens standard model

BN Products USA, headquartered in Wickenburg, Arizona, recently released a cordless saw, the BNCE-20-24V, which complements its standard corded model. The saw uses the same blade as the corded version.

Its powerful brushless motor combined with the 24-volt battery allows it to cut rebar up to #6 (20 mm). It is also an excellent tool for cutting threaded rod up to 7/8 inch (22 mm) and other 7/8 inch-diameter materials including galvanized steel pipe and conduit. The tool comes with two blades, two batteries, a charger and collection bag for cutting chips. It is packaged in a blow-molded case.

www.bnproducts.com



Lightweight stucco easier to place

The Quikrete Cos., a leading manufacturer of preblended commercial-grade concrete products, recently introduced Lightweight Fiberglass Reinforced Stucco (FRS), which was granted IAPMO's Uniform Evaluation Service Evaluation Report ER-0455.



The stucco is 35 percent lighter than traditional preblended stuccos making it easier and faster to transport, stage, mix, pump, place and finish. It is also one-hour fire rated and contributes to U.S. Green Building Council LEED credits.

Lightweight FRS is a portland cement-based plaster blended with recycled, coated expanded polystyrene beads, uniformly graded sand and alkali-resistant glass fibers. Ideal for expediting any residential, commercial or industrial stucco project, it's available in 50-pound bags and 1,950-pound bulk bags that can be troweled or spray applied on traditional three-coat scratch, brown and finish systems from 3/8 inch to 7/8 inch as well as one-coat systems. One 50-pound bag yields the equivalent coverage area of a traditional 80-pound bag of preblended stucco.

www.quikrete.com

(404) 634-9100

Polyurea provides rapid turnaround

New from Chemline Inc. is Chemline Arc, a high-performance polyurethane that has a high resistance to moisture and adheres extremely well to concrete with the use of a primer such as Chemprime CP or Chemprime 3558. Typical applications include secondary containment for oil and gas, wastewater basins, parking garages, foundations and water ponds.

Chemline Arc is a fast-set, spray-applied, two-component polyurea that contains 100 percent solids and zero VOCs. Being a pure polyurea means that it has a high chemical resistance and handles a wide range of temperature fluctuations. It also offers superior corrosion protection.

Chemline Arc has excellent impact resistance even in subfreezing weather and has a 12-second gel time. Additionally, this product is certified to meet ANSI/NSF 61 standards for potable water by Underwriters Laboratory.

It must be applied with a high-pressure, heated, plural-component pump. Chemline recommends Graco Reactor E-XP1 or H-XP2.

www.chemline.net

Product erases graffiti better

A new graffiti-removing product from Prosoco offers a more powerful punch than its predecessor.

Defacer Eraser Graffiti Remover, which replaces the now-discontinued Graffiti Wipe, is a liquid formula that more effectively eliminates graffiti with a shorter dwell time that gets the project done faster.



Formulated based on contractor feedback from the field, Graffiti Remover offers more effective penetration to melt away graffiti while also featuring the same ecological advantages as Prosoco's other graffiti-removing products with biodegradable components. Another improvement users may notice is less ghosting is left on the substrate because it's more effective at removing graffiti in general.

Graffiti Remover is designed specifically to work with the company's Blok-Guard anti-graffiti treatments.

Water-rinseable and compliant with all known VOC regulations, Graffiti Remover has a pleasant citrus scent.

www.prosoco.com

(800) 255-4255

Polymer protects while sealer cures and seals in one step

Vexcon Chemicals recently introduced its ProCoat brand of epoxy and urethane durable coatings for concrete, as well as a penetrating water repellent that seals and cures in one step.

The ProCoat line consists of high moisture-tolerant 100 percent solids epoxy coatings designed to protect and seal a variety of concrete surfaces. This high-build system effectively prevents moisture-related issues such as bubbling and peeling. When used with Vexcon's primer, the product can be applied to fresh concrete.

Utilizing the latest in polymer technology to meet the performance demands of today's building owners, ProCoat

products create high-build, seamless floors that can be used with decorative quartz and vinyl chip systems to create a variety of textures and aesthetics. ProCoat products are ideal flooring systems for demanding industrial, institutional and commercial environments.

ProCoat resists chemicals and abrasion, is quick drying, UV resistant, moisture tolerant and has excellent adhesion.

Starseal Guard DC from Vexcon is a water-based, one-step product that combines the benefits of a penetrating water repellent sealer and a dissipating white curing compound for fresh concrete into one product.

The product, which meets ASTM C-309 curing requirements and the chloride ion penetration requirements of NCHRP 244, forms a temporary film that restricts moisture loss allowing concrete to reach maximum strength and durability. When the curing compound wears off, the concrete remains protected from the harmful effects of freeze-thaw cycles, salts and deicer chemicals that can result in costly damage to concrete.

This innovative one-step product eliminates the costly removal of curing compounds and time-consuming water curing of fresh concrete when a protective penetrating water-repellent sealer is desired. Once applied, the surface is properly cured and water repellent in one application, putting concrete into service weeks sooner.

www.vexcon.com



Stencils make debut at WOC

Arisfor, a provider of coatings and sealers for concrete, masonry and other construction surfaces, debuted its new line of stencils at the World of Concrete.

They are designed to be used to create visually aesthetic patterns in vertical and horizontal cementitious overlay systems. They can be used on everything from patios, walkways, pool decks, driveways and steps, to perimeter walls, signs, building exteriors and balcony platforms.

Currently, Arisfor offers 18 distinct design templates. They can easily be applied by a single person.

www.arisfor.com

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Manufactured by BORIDE Engineered Abrasives, the Blue Star Diamond Corner Tool is specifically designed as an accessory to the Easy Edge line to grind and polish those hard to reach areas like corners and door jams.

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- Non-yellowing
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History Lesson: School's Time Walk Tells Story of Life on Planet Earth

Old Donation School Geologic Time Walk

Virginia Beach, Virginia

by Joe Maty

OLD Donation School in Virginia Beach, Virginia, is decidedly forward-looking in its educational mission, complete with facility design approaches geared to innovative learning concepts.

One of the school's design features, however, offers a view in the other direction — to the long-ago past, as measured in millions and billions of years.

This design element is the school's Geologic Time Walk, a collaborative construction feature conceived and built by Virginia Beach City Public Schools, RRMM Architects, faculty



Photos courtesy of Carolina Bomanite Corp.

Project at a Glance

Project: Geologic Time Walk, Old Donation School, Virginia Beach, Virginia, <http://bit.ly/2GL4F2s>

Owner: Virginia Beach City Public Schools

Decorative/Architectural Concrete

Contractor: Carolina Bomanite Corp., Charlotte, North Carolina, www.carolinabomanite.com

General Contractor:

McKenzie Construction Corp., Virginia Beach, Virginia

Architect: Rob Berz, RRMM Architects, Chesapeake, Virginia

Concrete Mix Supplier:

Capital Concrete Inc., Norfolk, Virginia

Products used: Scofield integral colors, Matcrete Decorative Concrete Products stamps, Bomanite Imprint Systems texture skins, Bomanite Micro-Top, Surface Gel Tek customized templates

Scope of project: Creating a Geometric Time Walk including stamping, texturing, etching and coloring customized templates of fossil images, words and numbers

Key challenges: Crew had to be highly skilled and knowledgeable in the use of customized templates for gelled-acid etching process; placement, stamping, acid etching and texturing of decorative concrete had to be very precise

members and general contractor McKenzie Construction Corp.

A major supporting role, however, was played by Carolina Bomanite Corp., the decorative and architectural concrete contractor that installed and served as a key design participant for the Geologic Time Walk. Carolina Bomanite recommended materials and design details, such as stamping tools, and provided answers to various design challenges that took the time walk from abstract design concept to built reality.

"These kinds of projects are what define the level of expertise in what we offer and bring to clients," says John Fletcher, Carolina Bomanite president, of the time walk. "We do the extraordinary, not the ordinary."

Not your mom and dad's school

Old Donation School, completed in 2017, replaces facilities for three "gifted learner" programs operated by VBCPS. The \$63 million, 225,000-square-foot facility uses "circulation space"

as "learning space," with small collaboration rooms in between classrooms called "think tanks" for smaller independent groups. Outdoor classrooms also provide learning spaces.

Much of the school's curriculum focuses on the geography and ecology of the Chesapeake Bay region of Virginia, Maryland and North Carolina. The region's concern with storm water runoff and rising sea levels are reflected in the curriculum's emphasis on ecosystems, aquatic and marine life, and environmental sciences.

The school is designed to achieve LEED Gold certification, with advanced HVAC systems, LED lighting, extensive daylighting, collecting rainwater to flush toilets, and other "green" design elements.

"Students and staff asked for colorful, wide-open spaces and lots of daylight, so that's what we gave them," says Rob Berz, RRMM's design architect for the school.



Jurassic walk and more

On the Geologic Time Walk, one can find replicas of fossil remnants of the various eras and epochs of the Earth's past. There's the Mesozoic Era, for example, some 252 million to 66 million years ago. If that term doesn't ring a bell, surely you've heard of the Jurassic, made famous by Hollywood through a series of films with immense special effects. The Jurassic period is the portion of the Mesozoic when the great dinosaurs dominated the planet.

The Geologic Time Walk dramatizes the mind-boggling size and scope of geologic time, and the miniscule place human history occupies in the scale of Earth's existence.

The earliest modern humans are thought to have emerged some 200,000 years ago, during the current geologic era, the Cenozoic. The Precambrian eon of geologic time, meanwhile, is dated to when Earth was forming some 4.6 billion years ago. Along the way from coalesced mass orbiting the Sun those many years ago, to earliest life forms, to the age of reptiles and age of mammals, to the dawn of man, the succession of geologic periods etched a fossil record documenting the genesis and evolution of life forms both extinct and existing.

So, the Geologic Time Walk task facing Carolina Bomanite and the school design team was downright dinosaur size in scope of design and installation challenge, if not in sheer physical size.

Concept to concrete

The Geologic Time Walk came to the attention of Carolina Bomanite in late 2013 or 2014, when architects

for the Old Donation School project contacted the company. After talking to suppliers of concrete stamps and artwork templates, Fletcher got back to the architects on what was possible in delivering on the design concept.

He submitted samples of time walk sections that included fossils created with stamp tools and acid etching, concrete surface textures and integrally colored concrete.

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PROJECT PROFILE

For fossil imprints, Carolina Bomanite enlisted the craftsmanship of Matcrete Decorative Concrete Products and Surface Gel Tek. Matcrete supplied a variety of stamp tools from its Fossil Effects product line. Surface Gel Tek's role was significantly more complex, as the company produced customized templates of fossil images, words and numbers to be etched into the concrete using Surface Gel Tek's gelled-acid etching process.

Marching forward through time

For Carolina Bomanite, installing the time walk presented the challenges of skilled concrete construction, geometric precision and artistic craftsmanship. Fletcher went with a relatively small crew, recognizing the need for tight management of all the processes involved.

In the spring of 2017, "Wind was the biggest issue," Fletcher says. "It was an open area, and unusually windy." This put the crew to the test in ensuring consistency in the pours.

Concrete with integral colors was used, with each color of the walkway indicating a different span of geologic time. The colors from Scofield, most of which have since been discontinued, were Sombrero Buff, Navajo Red, Roman Tile, Surrey Beige and Moonlight Gray.

The entire walkway surface was textured with a Bomanite slate mat. To lend authenticity to the visuals, other textures were matched with individual fossil images and used on the concrete surface adjacent to the fossils. The texture and fossil stamps from Matcrete were placed as the sections of walkway were poured.



The Carolina Bomanite crew laid out the design for each section of walkway with precise measurements in the surface for saw cuts, fossils, wording and numbers. "Logistics were everything," Fletcher says. "It required a concerted effort. Everyone had to be on the same page."

The fossil templates from Surface Gel Tek were "sticky" self-adhesive elements attached to the hardened concrete. Here, acid gel was used to etch the surface prior to a secondary coloring process using Bomanite Micro-Top.

Gelled acid and concrete art

The gelled-acid Flattoo process from Surface Gel Tek was used for much of the walkway's fossil artwork and geologic timeline elements. For the project, owner Tamryn Doolan created custom vinyl adhesive templates based on images of fossils specified by the Old Donation design team. Doolan also created templates for the geologic terms and the numbers indicating years of various geologic periods.

To create these elements, Doolan employs a software graphics program that creates multidimensional templates that can be used for acid etching and coloring concrete. Following design-team approval of the artwork, a vinyl adhesive template is produced and shipped to the contractor.

To create the intended image, the template is "weeded" before it's placed on the surface – meaning parts of the template are removed to expose areas of the concrete that will be acid-etched for color contrast, or etched and colored using products such as dyes, stains or acrylics for more dramatic coloring. Areas that remain covered by the template aren't etched and colored.

The acid etching opens up the concrete's pores, allowing the color to penetrate and permanently color the concrete. "It's very much like tattooing," Doolan says. Acetone dyes are typically applied without prior acid etching, as the acetone penetrates the concrete on its own.



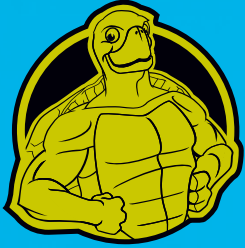
Doolan emphasizes how important communication is when it comes to matching process details with color specifications and other project parameters. "We are the contractor's art department, in that we understand graphics that work with concrete," she says. "We take the fear of art out of the equation."

School as teaching tool

Tim Cole, VBCPS sustainability officer, says LEED and sustainable design have been part of the district's mission for new facilities for some time. Old Donation is the ninth LEED design project for the district, and these facilities incorporate features that capture rainwater, emphasize daylighting, and use geothermal heating and cooling, among other sustainable-design functions.

"What we've gotten better at is designing the school to also serve as a teaching tool," Cole says. Old Donation's atrium floor — a terrazzo installation — is a scale replica of the Chesapeake Bay watershed, depicting the region's geography and ecology and serving to illustrate the challenges the low-lying region faces from pollution, surging storm water and rising sea levels.

The Geologic Time Walk also serves the school's teaching-tool aspirations in a big way — millions of years of planet Earth's history in a brief stroll from parking lot to school. 🖊️



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When Stains

Stains, such as the water-based one used here, create customizable options for concrete floors for a one-of-a-kind showpiece. Photo courtesy of Brickform, a division of Solomon Colors Inc.

are a Good Thing

by Karen Keyes

STAINED concrete is a simple yet decorative upgrade for many concrete surfaces. As a decorative concrete contractor, it's beneficial to be well-versed in concrete staining. Although it may seem simple, there are a few factors you should keep in mind to help ensure your success: finish, location and desired aesthetic.

First the finish

Stained concrete works on almost every concrete finish. You can stain concrete that's troweled, broomed, exposed aggregate, polished, overlaid, old, new, vertical or horizontal — the options for adding color are very versatile. However, stains penetrate some finishes better than others.

When you stain or dye polished concrete, it should be applied during the polishing process so the color locks into the concrete finish instead of just resting on the surface. (We've all seen those quick-serve restaurants with stained concrete floors and a distracting traffic pattern worn through the stain.)

Exposed aggregate finishes can be stained as well. However, keep in mind that you're staining the cement — not the aggregates — so the color will only tint the matrix. The original aggregate color will remain fairly intact.

Location matters

Whereas stains can be applied to virtually any concrete finish, they are not always the best choice.

For interior floors, determine foot traffic usage and wear and tear to help guide the finish selection. If it is a high-traffic area, polished concrete may be the best route. However, low-traffic areas could be fine with a topping or a grind, stain and seal.

Grind, stain and seal can also be used



Photo courtesy of Lakebrink Custom Concrete

When you stain concrete, you are staining the matrix not the aggregate. The aggregate's color will virtually remain the same.

in a higher-traffic setting, however, maintenance requirements should be communicated upfront to clients to help ensure the floors' good looks will last. For example, I usually recommend polished concrete with stain for school halls or a restaurant. On the other hand, I recommend stained and sealed for an office or low-traffic lobby.

For exterior concrete staining, key considerations also include traffic, as well as UV and weather exposure. Some dyes are not UV stable and shouldn't be used outside at all. Others may last a few years under certain conditions. Always research the product to ensure it can withstand the elements it will face.

For exterior staining, reactive stains — also called acid stains — tend to work best, and they will last the longest on exposed sand or aggregate finishes and vertical faces. In an exposed sand or aggregate finish, the stain penetrates beyond the sand/aggregate at the surface and stains the cement. Therefore, the walking surface (the sand or aggregate) — not the actual stained concrete below — bears the foot traffic.

In a broom finish, the stain will walk off sooner since it doesn't have the exposed aggregate protecting the colored portion. Also, because the color is exposed to the elements, all exterior stains will fade over time. They are not as durable as an integral color or color hardener.

Achieving desired aesthetics

When talking to your clients about stained concrete, encourage the use of photos as a reference so you can understand precisely what they envision.

Some people may envision a lot of mottling when they think of stained concrete, while others may think of a more uniform color. By understanding their vision, you can better guide their expectations. Drastic mottling is more achievable on a floor with a cementitious topping due to a higher cement content and less aggregate exposure than it is on a polished concrete floor.

Reactive versus nonreactive stains

It's also important to understand the difference between acid stains and dyes. Acid stains react with the concrete while dyes and other nonreactive stains tint



Reactive, or acid, stains can create great mottled effects.

Photo courtesy of Brickform, a division of Solomon Colors Inc.

the surface. Typically, reactive stains will penetrate deeper and last longer. However, the color palette of reactive stains is limited and the reaction doesn't produce consistent results.

I like reactive stains when I'm creating a more organic floor with flowing color and natural colors. Reactive stains can create great mottled effects that are harder to achieve with dyes or nonreactive stains. As with any acid, reactive stains must be neutralized after you get the desired color.

Dyes and nonreactive stains provide more color options and more reliable color outcomes since they don't rely on

a chemical reaction. If you have a client that has set expectations and has approved a mockup, dyes and nonreactive stains are the way to go.

Stains offer a cost-effective way to add colorful accents without requiring multiple pours. Stains can be the most economical way to add color to concrete, but the cost savings needs to be weighed with the other factors mentioned earlier to ensure it's the best solution for the client. As with many finishes and options for decorating cured concrete, proper surface preparation is a crucial step as well. See Chris Sullivan's article this month for details. 🛠️

As the co-owner of The Art of Concrete LLC out of Denver, Colorado, Karen has found her niche in the industry exploring the creative side of building and designing with concrete. She helps owners, architects and landscape architects design decorative concrete palettes to enhance space and its community. Reach her at karen@theartofconcretelc.com.

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Acid or Water-based Stains?

A Matter of Personal Preference

Although water-based stains may not offer as much depth of color, a skilled applicator can experiment with the thickness of the application or use of a second color to mimic an acid-based look—without the cleanup the acid-based product requires.

Photo courtesy of Increte Systems

by K. Schipper

WHAT'S the difference between concrete and decorative concrete? One of the first indicators is whether it has the dull gray color of ... well, concrete, or if it incorporates a natural or even not-so-natural hue, tone or shade.

Of course, there are also several ways to add color to concrete, depending on the needs and desires of the client. One that continues to make a splash are water-based stains, based on their ease of application, range of colors and ability to work even on old concrete.

That's not to say it's time for contractors to turn their backs on acid-based stains, though. Not only do they represent a standard for many clients who want that traditional look, but suppliers who sell both say they aren't seeing any real drop-off in acid-based stain numbers, even as their water-based competition continues to grow.

"What we've seen is almost an equalization of the technology based on the consumer's commitment and preference of style," says Jeff Wells, training and business development

manager for H&C Concrete Stains in Cleveland. "There are a lot of architects, as well as consumers, who still like that more rustic look, that earthier look, or the less-manufactured look of acid stains."

What's the difference?

The difference between the two is as simple as the names imply: acid-based stains (also known as reactive or chem stains) use a small amount of hydrochloric acid and metallic salts for coloring. The two react with the calcium hydroxide in the concrete.

"Because of the reactive properties with lime/portland cement, acid stains are considered a permanent, color option for interior and exterior surfaces," says David Barreto, business development manager with Epmar Corp., in Whittier, California. "Acid stains do not peel or fade under UV (ultra-violet) rays."

Since the process uses metallic salts, the color palette for acid-based stains is limited and runs heavily to earth tones.

The result is also often uneven, leaving a mottled, marble or stone appearance. The acid used in the process also must be neutralized prior to sealing or buffing.

However, Rich Cofoid, senior product manager for Increte Systems in Odessa, Florida, says acid-based stains that include copper ferrous in them tend to turn black when a lot of moisture is present.

By comparison, a water-based stain is a nonreactive process that involves water (or acetone) to which pigment and polymers are added to create the color.

"The water-based stains are straight color," says Mark Hampston, chief executive officer of Redi-Mix Colors in Taunton, Massachusetts. "You're going to get a straight color, plus the coverage is more uniform and predictable. You can also dilute them as you're adding different coats to make some areas darker and some lighter."

The color palette also goes well beyond what can be achieved with metallic salts.

Dyes are an option

Although Clemons Concrete Coatings in Nashville, Tennessee, doesn't offer a water-based stain, Tim Allen, the company's technical director, says it does sell water-based dyes that are true solutions of dye molecules rather than finely ground pigments in suspension as is the case with water-based stains. The dyes are suitable for interior use.

However, in both water-based stains and dyes it's the color palette that makes those products so attractive.

"Not only can you get a nice mottled appearance with the dyes, but it's easy to apply with stencils, for example," Allen says. "And, the color spectrum is large. You can get exotic hues that you might encounter with commercial jobs, such as purples, yellows and blues."

Water is more workable

Water-based stains first came on the market early in the century, and H&C's Wells says while people still want to accomplish the look that acid-based stains produce, they've been looking for an option that would give them that look with more reliability and less labor than the acid-based products.

There's also a matter of flexibility.

"Once the acid stain hits the calcium hydroxide or the lime, it's spent and the impression of color you get is a permanent solution," says Wells. "With the semi-transparent water-based stains, if you overapply or have a mishap in your application, you can take regular tap water and diffuse the color very well."

With one process using tap water and the other an acid base, it seems to suggest that the water-based formula is more environmentally friendly. However, suppliers of both products say that may or may not be so. And while a segment of contractors and their clients base their choice on products that are eco-friendly, others aren't necessarily thinking about the environment when it comes time to stain their concrete.

For instance, even though the amount of acid in acid-based stains is low, it can kill vegetation if an outdoor application is oversprayed. However, the big issue is the metallic salts.

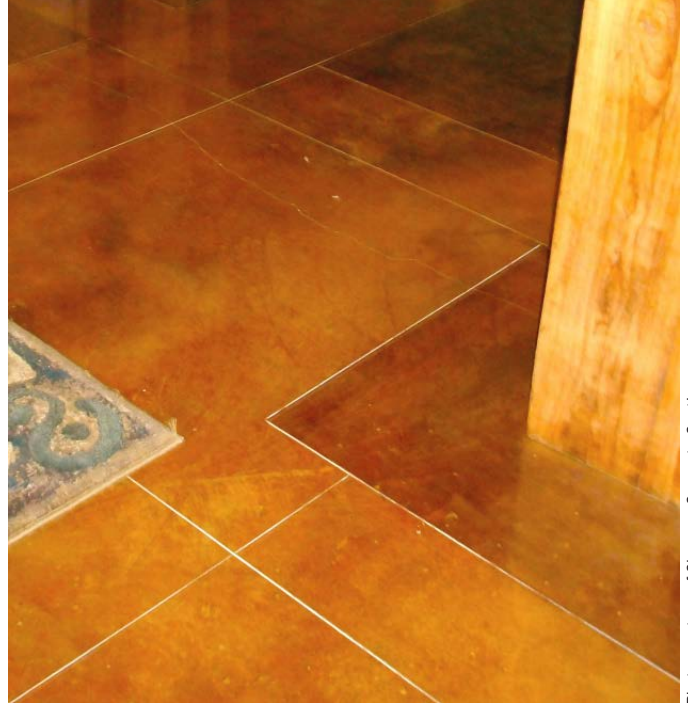


Photo courtesy of Clemons Concrete Coatings

Some companies only offer acid-based stains because of their natural appearance and the earth-tones of their color spectrum.

"Some of the metallic salts are a known marine hazard," says Increte Systems' Cofoid. "You don't want the copper ferrous rinsed from a driveway into a storm drain or sewer."

Acids can be temperamental

The bottom line on environmental issues is probably best summarized by Todd Rose, a sales manager and trainer for Springfield, Illinois-based Solomon Colors/Brickform, when he observes, "My customers base their choices mostly on color availability."

Probably beyond color, one thing contractors should consider when weighing the advantage of a particular stain is the concrete on which it's going to be applied. Acid-based stains can be a bit temperamental both early and late in the game.

Cofoid notes that on new pours, manufacturers of acid stains urge users to wait a full 28 days so the free lime can develop and there's something to react with the stain.



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However, as the concrete ages, its chemical composition will change again.

“Over 100 years, there’s going to be very little of that chemical left in the concrete, so it can have an impact on how dark or deep your colors become,” he says.

Solomon Colors’ Rose stresses that it’s always a good idea to do a test area on every job to help eliminate those surprises. He also says he never does an acid-based stain job without having the corresponding water-based stain on hand, as well.

“If something happens to the slab — say the plumber has dropped some of the threading liquid they use on pipes — it’s very difficult to get an acid stain to react with it,” Rose says. “By having a corresponding water-based stain on hand, you can still stain the concrete.”

The two work well together

Using the two together can also create some nice effects, say both Clemons’ Allen and H&C’s Wells.

“Maybe they want a color that can best be achieved by the application of two different colors,” says Allen. “Sometimes it’s done as a color correction after the acid stain application, or maybe the homeowner wants it just a bit more toward this color or that color that you can’t get with acid stains.”

Wells agrees and says the result is often a more-dimensional look than what’s achievable using either stain by itself. He also believes that’s a trend that will continue.

“We’re starting to see some accelerated growth where other hard-surface applications have been done,” he says. “We’re



Unlike acid stains, water-based stains feature a much wider color palette because they can use more pigment sources.

Photo courtesy of Redi-Mix Colors

really starting to see growth in semi-transparent applications for restaurants, community and commercial facilities, and if anything, contractors will get more creative with what they can do and how they’re able to enhance color and create 3-D effects.”

Improvements on the horizon

Both Rose and Cofoid say they expect the use of water-based stains to continue increasing, and Cofoid predicts improvements in the coating end — epoxies, two-part polyureas and polyaspartics — for still more durability.

Allen sees the water-based stains improving their pigments, as well.

“The pigment industry will be able to obtain finer and finer particle sizes for producing the pigments,” Allen says. “The end goal is to make the particles small enough where they get into the concrete.”

Redi-Mix’s Hampston agrees that water-based stain technology will continue to improve. While the improvements haven’t hit the big-box stores yet, its ease of use will mean concrete professionals will have a wider market for application.

“Concrete is a very interesting product and there are no two pieces of concrete that are ever alike because of climate and the materials within the concrete,” he concludes. “It’s an ever-changing platform, and cleanliness is most critical. This is a job that should stay in the hands of professionals.”

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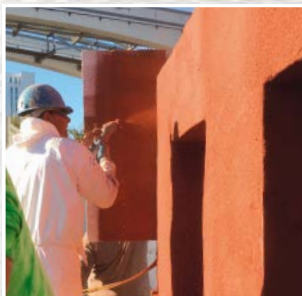


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Surface Preparation is the Critical First Step for All Jobs

by Chris Sullivan

THERE is no shortage of information, or opinion, when it comes to surface preparation for applying coatings or overlays. Read any technical data sheet for a topping or coating and it's almost always the first thing discussed. Words like critical, must, essential and required are often found in the guidelines dealing with surface preparation.

I remember reading a product catalog from a large chemical product manufacturer some years back where it loosely stated more time and money should be spent on surface preparation than on the actual product installation. I've always agreed with this statement, but it leaves a lot of questions regarding where and how that time and money should be spent.

Surface preparation is what I call an "umbrella" word that covers a huge variety of products and processes. While the general rules of surface preparation hold true across all products and industries, the term "surface preparation" has become generic and some of the product or system details required for a successful installation have been lost. The devil is in the details, and this is especially true when it comes to decorative applications.

As with most everything decorative, there are additional factors or details that often must be considered. After all, decorative is eye candy, where the final color and appearance is as important as the long-term performance. Over the last few years, I've seen an increase in decorative failures because generic umbrella surface preparation techniques were used or because of a complete lack of surface preparation.

So, what exactly is surface preparation? I believe it's anything and everything done to the concrete prior to applying the coating or overlay. This includes, but is not limited to, visually inspecting the surface, cleaning, removing contamination, moisture testing, surface hardness testing,



Photo courtesy of Chris Sullivan

When it comes to mechanical surface preparation, more and more contractors are using concrete polishing grinders. There's no problem with this method if the correct type of tooling is used.

mechanical or chemical preparation, and priming.

Most turn to ICRI for guidance

When it comes to guidelines for mechanical surface preparation for concrete applications, one organization has become the industry standard. In 1988 the International Association of Concrete Repair Specialists was formed, changing its name to the International Concrete Repair Institute (www.ICRI.org) in 1993. ICRI's focus is repair, but the first and most critical step of any repair is surface preparation.

To take the guessing game out of surface preparation, ICRI created the Concrete Surface Profile Chips, also known as ICRI CSP chips. These are a set of rubber plaques numbered 1 through 10 that show properly prepared concrete ranging from almost smooth to extremely rough. The chips, along with the accompanying booklet, establish a third-party guideline for what properly prepared concrete should look like, how to achieve the desired level of surface preparation, and which profile is best for a particular overlay or coating system.

Most producers of overlays and

coatings for concrete use the ICRI CSP system as a guide for the recommended profile for their products and systems. It's important to note that the ICRI CSP chip system provides a range of profiles for a given overlay or coating system, not just one specific profile. This allows various methods of preparation to be used, usually depending on what is available to the installer, to achieve the desired CSP.

For example, polymer-modified microtopping overlays with a thickness of 10-40 mils are considered a high-build coating by the ICRI CSP system. The range for this application is a CSP3-CSP5 which can be achieved by any of the following: grinder with polycrystalline diamond tooling, shot blasting, bush hammer or scarifier. I've been promoting ICRI CSP chips for decades and strongly recommend anyone in the decorative coatings or overlay industry to get a set.

Using polishing grinders for surface prep

Regarding mechanical surface preparation, the growth of the polished concrete industry has led to an increase in the practice of using concrete polishing grinders for surface preparation. There

is no problem with this practice if the correct type of tooling is used.

Polishing tooling differs from surface preparation tooling. A low-number diamond tool for polishing isn't designed to create a rough surface. In fact, it does the opposite. Clark Branum, the Ultraflor program manager with Diamatic USA, refers to this as glazing.

"When the wrong diamond tooling is used, the concrete starts to glaze over and gets smooth instead of rough," he says. The right tooling is critical when using a polishing machine for surface preparation.

"Doing a Mohs surface scratch test to determine concrete hardness is an important first step to determine which type of diamond tooling to use," Branum adds. If the concrete is hard, a softer diamond is needed, and when the concrete is soft, a harder diamond tool is needed. Understanding which tooling to use takes time and experience.

Branum is also a strong advocate of the ICRI CSP chip system as a guideline for surface preparation, but he recommends using polycrystalline

diamond tooling (PCDs) when doing any surface preparation work.

"When a CSP over 4 is needed, I recommend switching to shot blasting and not using a grinder with diamond tooling," he says. "No matter the type of equipment used to achieve the desired surface profile, you always want to go by feel — not sight — when working with the ICRI CSP chips."

Establish a set process

This article focused primarily on the mechanical portion of the surface prep process. In future articles, I'll discuss other aspects of surface preparation.


No matter the size and type of projects, you should establish a set process on all projects for evaluating and preparing a concrete substrate. Although each job may not require all the previously mentioned steps, having a standard procedure and eliminating unnecessary steps is better than guessing from job to job.

This is the reason even veteran pilots with thousands of flight hours still go through the same checklists on

Concrete Surface Profile Chips take the guessing game out of surface preparation with examples of what properly prepared concrete should look like. The profiles come in a set of 10 and are available from the International Concrete Repair Institute. Cost is \$99 for ICRI members and \$198 for nonmembers.



Photo courtesy of ICRI

every flight. Concrete, like flying, is terribly unforgiving of any carelessness, incapacity or neglect. You may not crash and burn, but poor surface preparation can end up costing you a job or, worse, your hard-earned reputation. 

Chris Sullivan is vice president of sales and marketing with ChemSystems Inc. and a member of the Decorative Concrete Hall of Fame. He has led seminars and product demonstrations throughout North America. Reach him at questions@concretedecor.net.

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The Cool Side of a Warm Color and Vice Versa

by Rick Lobdell

In my last article, I wrote about how to visualize color through value. This time I want to warm up the conversation a tad. Not only do I want you to be aware of color values, but I also want you to understand the warm and cool variations of a color.

Talking to a client about color choices can be difficult. Many times, clients say they want brown, which is about the vaguest statement a client can make. In the last article, we focused on asking if they wanted it to be light or dark. This time we want to know if they want a warm or a cool brown. Warm and cool attributes are very much like lights and darks.

I think the value and temperature of walls to floor should have at least a little bit of contrast. If the walls are dark, a lighter floor will help reflect more light. If the walls are cool (green, blue, gray), it's nice to balance that with a bit of warmth.

Getting to brown

The easiest way to explain if a color is warm or cool is by breaking it down and determining if it has more red or more blue in it. Let's start with a basic primary color wheel composed of red, blue and yellow. As red cools down toward blue it becomes purple. Yellow cools down as it moves closer to blue and turns green. Yellow warms up when it moves closer to red and becomes orange. Blue warms up as it moves toward red or yellow.

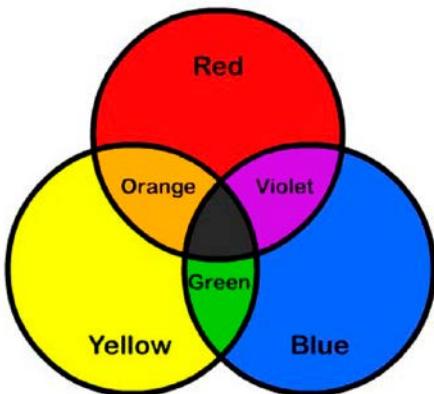


Figure 1

Now where does brown fit in? Brown is what most of us use on a regular basis. Rarely do any of us have clients that want vivid yellow or blue floors. Everyone wants a variation of brown or gray, right? I'll focus on brown for now and we'll touch on gray another day.

Let's get back to the color wheel. The three primary colors are red, blue and yellow. The secondary colors are mixtures of these to form purple, green and orange. Complementary colors are primary colors and secondary colors positioned opposite each other on the wheel, such as blue and orange, red and green, or yellow and purple. When you mix complementary colors together, you get a muddy middle color — brown.

The best thing about knowing how to make brown is that you can make a custom brown out of almost any surplus colors you have: blue and orange, yellow and purple, red and green. If you need consistency over a large area, then a factory color out of the bottle is the best.

Black is not just black

Let's look at browns as they pertain to acid stains and coloring and not

get into the chemistry. Most of us know each pour of concrete takes acid stain differently. Let me start with my favorite of all acid stains, black.

Black is not just black. When used full strength, it's a warm black. When diluted, it becomes a cooler brown. Think about that for a second. A warm black acid stain dilutes into a cooler brown. It's one of acid stain's attributes you need to remember when using it. Any other type of black stain would appear gray when diluted.

Since acid stains chemically react, the results differ from surface to surface. When you dilute a dye or a water-based stain, you just get less of the same color.

Look at figure 1. The entire driveway in figure 1 is coated with black acid stain. The border is a warm black, and the rest is a very cool brown. If the border had more blue in the black, it would be a cool black. Instead it has a hint of green to it, not red. Green is warmer than blue but cooler than red.

An easy way to think about warm and cool colors is to associate things to those colors. Cool blue water and green grass in contrast to the warmth of the sun or the heat of a red and orange flame.

Photos courtesy of Concrete Mystique Engraving



This conversation is based on colors in relation to each other. Refer to the color wheel. Think about all the different color combinations brown can have based on how close it is to blue, red or green. In this image, it's about how much closer each color is to red or green, not blue. Then add how the value of each one affects the overall look of the space.

Color relations

Now look at figure 2. I used a brown for the inside color and black for the border. The color in the main field —



Figure 2

which has more red in it — is warmer than the border but both areas have a brown look. Value doesn't always affect the temperature of the color, but in this case the darker color is the cooler one.

Figure 2 is about color relation. That border is almost black. In fact, it's a

slightly diluted black acid stain. That border has a cool brown, warm black feel to it. There is no blue in it. If there was a hint of blue it would be very cool in relation to the warmer brown used as the main color. The main color has more red in it.



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Figure 3.

When I'm talking with a client about what brown they have in mind, I'm trying to determine how much red or green should go into the brown. The more red, the warmer the brown. The more green, the cooler it is. Understanding this makes it much easier to adjust or fix a color that is too warm or cool.

Simply add its complement into the mix.

Am I getting warm?

Look at figure 3. This driveway has three major color areas. The borders and interwoven designs are a warm black. Some of the triangle-shaped areas are a very warm reddish-brown, while the other areas are more of a tan. The reddish-brown and tan areas are the same acid stain.

The reddish-brown is warmer than the lighter tan. Again, this is the crazy thing about acid stain. At full strength the stain is warmer and created the reddish-brown hue. As it was diluted, it lightened up and slightly cooled to create the tan.

When I'm talking about color, this is where I sometimes confuse myself. In figure 3 the borders are a warm black, but they are cooler than the reddish-brown and tan. Everything about color is in relation to the other colors and values around it. We saw the same

effect in figure 2 where the border was a cool brown with hints of a warm black. The black is still cooler than the warm brown.

Pay attention to the color choices you make with your client. Are they colder or warmer than the walls or brick? Are they darker or lighter than the walls or brick? There is no perfect answer. It is more about being aware of all the choices you have and why you are choosing them.

As the contractor/designer, you should understand color relationships and be able to communicate this to your client. You should know how to create a custom brown from complementary colors and how to fine-tune a factory color to meet your client's needs. Finally, you should be able to analyze the color qualities of adjacent materials and their relationships to one another so you can make good design choices that will create spatial harmony. 🖌️

Rick Lobdell, a classically trained artist with a master's in fine arts in painting from the Savannah College of Art and Design, has also studied math and drafting. In this series, the owner of Concrete Mystique Engraving in Tennessee will explain how he conceives his well-known designs. He can be reached at rick@concretemystique.com.



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Table Topic

by K. Schipper

A REAL conversation starter, the concrete table designed and cast by Dominic Boinich of 5 Feet from the Moon kept the table talk flowing freely at the unveiling of the 2017 Pasadena Showcase House of Design in California. The annual charity event raises funds to support community music programs.

The 16-by-5-foot table — commissioned by Terry Morrill of Pacific Outdoor Living, a landscape design-build company in Sun Valley — serves as the centerpiece of a space that garnered national honors. The 1,400-pound table, says Boinich, whose company is in nearby Santa Cruz, is the largest he’s cast.

“Terry sent me a rendering that showed a table with water running straight through it,” says Boinich, of the table situated between the showcase home and its pool. “He also told me they wanted me to do my thing and said I had



Photos courtesy of 5 Feet from the Moon



Katrina King) needed to reinforce it substantially,” he says. “We did a post-tensioning system down the long rails, and we made it to Pasadena in one piece. Instead of trying to build a crate for it, I put my casting table on the truck and secured it.”

Watching the concrete table move to its final location was unnerving, Boinich says. It was carted to the site by a Bobcat and then muscled into position by about a dozen guys with Pacific Outdoor Living. The company also installed the landscape, pond and small stream at the end of the table. The table, Boinich says, was a beautiful way to tie the whole project together.

At the grand opening, the table topped conversations, even though liability issues prevented organizers from lighting the fire during the event.

“The benefits from the showcase go to a good cause, so the vendors are donating a lot of work,” Boinich concludes. “I did get compensated to cover my costs, and anytime you can get paid to bring something you’ve been dreaming of to life is priceless.”

‘carte blanche.’ So I looked up what that meant, and then I got to work.”

He adds that typically when people ask him to build a table he tries to get them to include water or fire, or both, in the design. The owner OK’d both and the fire element was nestled alongside the requested plants — another 5 Feet specialty.

As a safeguard, Boinich says, he included a steel shroud to disperse the heat and direct it toward the outside of the table.

The size of the project raised concerns about making the piece structurally sound, especially since it needed to travel to Pasadena and then be mounted on three finished cinderblock pedestals.

“We (Boinich and his partner,

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* To obtain this look, a stain was also applied.



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