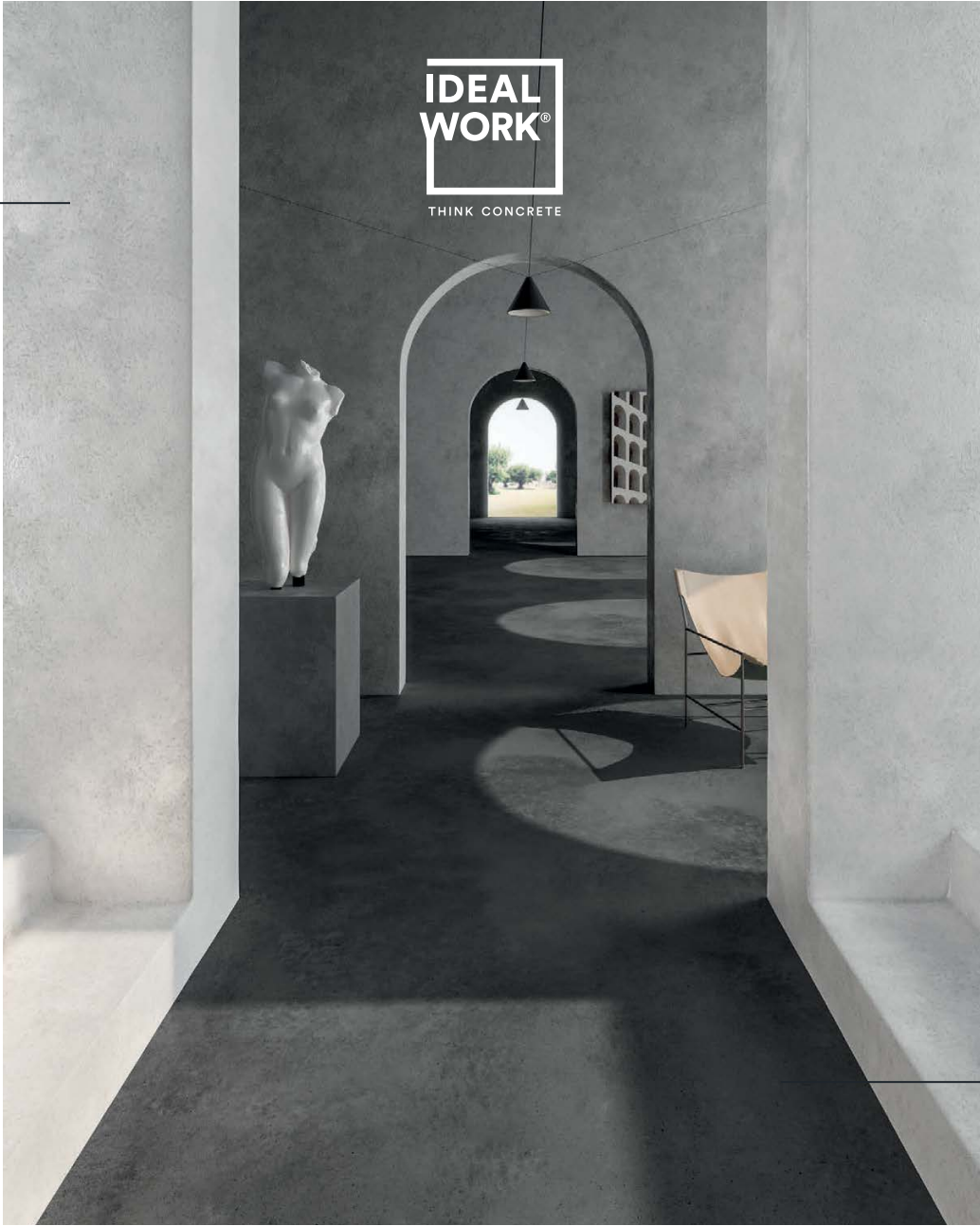


# concrete DECOR®

Vol. 20 No. 1  
January 2020  
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The many  
merits of  
**Mock-ups**

WALL



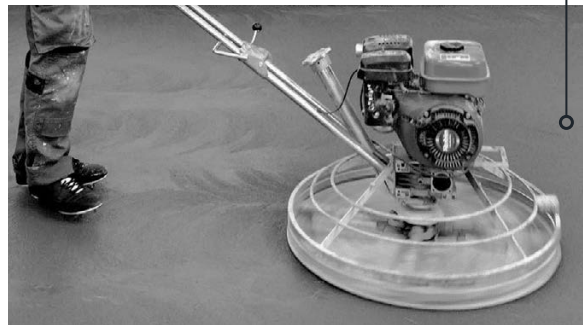
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# Publisher's Letter



Dear Readers,

In a marketing book I recently read, ongoing communication about the value of a product is essential to tell people why your product should be chosen over another.

Another important aspect of effective marketing is asking customers what they like about your product so you can share positive feedback with prospective buyers via testimonials. Testimonials are great because no one tells a better story about your products than customers. You may know your product or service inside and out, but it's generally a customer's experience that consistently sells others.

When I was a contractor, I regularly had an early morning coffee or breakfast with fellow contractors. We constantly talked shop. These super reliable guys were the same ones who taught me my trade. Although we did similar types of work, competition was never a concern. What made our bond so strong was we were always comparing notes and helping each other. We even gave each other job leads when our plates were full.

We trusted the information we shared because we knew a lot about each other and the standards we guarded for the sake of our business reputations. We had an air of confidence in our customer communications because we knew best products and best practices, and they were backed by the group's practical experiences.

If a customer called us back on a product application, we were all talking about it then or the next day because everyone wanted to know the skinny. I considered myself one of the best in town — not just because I knew my craft, but because of my peeps.

Marketing is an artform and done right will move products through the intended sales channels. But what's often overlooked is something deeper than the recommendations or testimonials we factor into our marketing efforts.

Connecting with fellow contractors is critical. You may, at times, invite a factory rep into that circle but you must be extremely careful with those invites because they can dilute a group's efforts to build trust based on that key ingredient called practical experience.

Some well-respected people in our trade recently shared these kinds of aspirations with me. Without strong peer relationships how can you decipher the daily communications received through "online" channels? Maybe a better question to ask is: Should we rely on those channels at all?

If you're a contractor with thoughts about what I've shared, please send me an email. *Concrete Decor* is a trusted industry resource not partial to any one product.


Happy New Year from all of us at *Concrete Decor*.


Sincerely,

Bent Mikkelsen  
Publisher


**On the cover:** Contractors who want to showcase their abilities of using polishable overlays should start by managing their customer's expectations with a mock-up specific for the job.

Photo courtesy of Ardex Americas, © TTM Finishes Inc.

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# concrete DECOR®

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## EXPERTS



**Danny Barrera**, owner and founder of Concrete Marketing Crew, has more than 10 years in the digital marketing space. He specializes in helping residential and decorative concrete contractors grow their business online to their maximum potential by integrating proven internet marketing to their business. He can be contacted at (305) 902-4888 or [danny@concretemarketingcrew.com](mailto:danny@concretemarketingcrew.com).

See Danny's article on page 20.



**Mike Dougherty** is vice president of Hudson, Wisconsin-based Concrete Arts, a Bomanite franchise partner that installs a variety of architectural concrete applications. He sits on the board of directors for the Bomanite International Society. Dougherty studied journalism at the University of Minnesota and is a member of American Mensa. He can be contacted at [mdougherty@concretearts.com](mailto:mdougherty@concretearts.com).

See Mike's article on page 40.



**Craig Morris**, a 36-year veteran of the flooring industry, is business development manager of finished surfaces for Ardex Americas. In that role, he promotes an appreciation of polishable overlays and educates contractors about installation and maintenance procedures and protocols. You can reach him at [craig.morris@ardexamericas.com](mailto:craig.morris@ardexamericas.com).

See Craig's article on page 24.



**Traves W. Ogilvie**, LEED AP, is head of sales for the U.S. and Mexico for Poraver North America, the market leader in the manufacture and sales of expanded glass granules. With nearly 30 years of experience in the commercial construction and building products industry, Traves has

a broad knowledge of all types of composite materials from concretes and mortars to thermoset FRP and polymer concrete. As a LEED accredited professional, he has worked extensively with the USGBC to quantify how recycled content contributes toward LEED points. Today, Traves travels the country as an expanded glass formulation expert in GFRC, concrete, FRP and polymer concrete. He can be reached at [togilvie@poraver.com](mailto:togilvie@poraver.com). See Traves' article 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](mailto:questions@concretedecor.net). See Chris' column, "Concrete Questions," on page 44.

See Chris' column, "Concrete Questions," on page 44.

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# Discover the Many Facets of Concrete

at the fourth annual Decorative Concrete LIVE!

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**B**E prepared to see a lot of color and whimsy at the fourth annual Decorative Concrete LIVE! during the World of Concrete Feb. 4-7 in Las Vegas. On the flip side, also be prepared to appreciate the subtleties and sophistication the same material can offer.

“This year we’re going to take decorative concrete beyond simply replicating the finishes you see on buildings in places such as downtown Chicago to something new and exciting that will get WOC attendees amped up about the possibilities concrete has to offer,” says Bent Mikkelsen, publisher of *Concrete Decor* magazine and the driving force behind Decorative Concrete LIVE!

“We intend to challenge the products that people traditionally use as building finishes by offering decorative concrete finishes that will have everyone at the show talking,” he says. And, contrary to what some might believe, these finishes will not be one-offs that can only be created by skilled artisans with decades of experience.

“We’re going to show how more contractors can be extremely productive with these gorgeous finishes by amping them out and moving on to the next project. We’ll be focusing on repeatability, productivity, sustainability and energy efficiency — surefire ways to get the job done, wow your clients, sell more product and make more money.”

Manufacturers’ representatives and artisans will demonstrate the many facets of concrete, from pumping lightweight cementitious materials on commercial facades to installing landscape scenes on vertical exteriors with easy-to-use stencils.

“The demonstrations you’ll see this year are aimed to make us increasingly more competitive with others in the construction trade,” Mikkelsen says. “They’ll take us beyond simply replicating masonry, brick and bark. Be prepared for provocative.”

Joining this year’s lineup at the 2020 exhibit dubbed “Colorful Cityscapes” will once again be the multitalented show veterans Emil Gera, Matt Sampson and Randy Klassen, award-winning artisan Rick Lobdell and acclaimed public artist Cindee Lundin. Jake Brady from Florida will work his magic with GFRC and cast-in-place creations.

New to the show this year, Dominick Cardone of New York City will manipulate microtoppings and stencils on both vertical and horizontal surfaces. Josh Russell and the Cement Sisters will carve creative while Rebecca Fuscardo will also join the scene with some wall applications of her own. Plus there’ll be much, much more to take in!

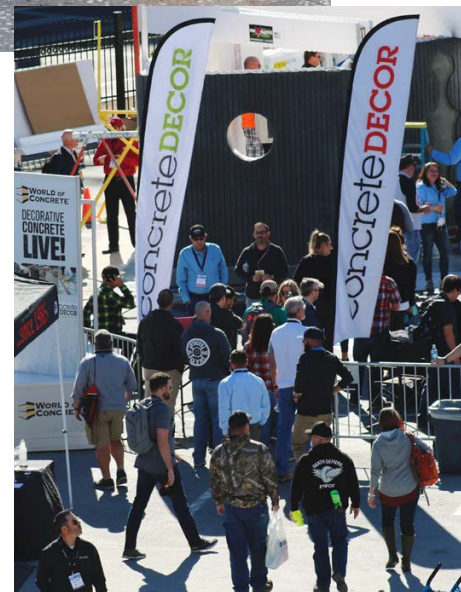
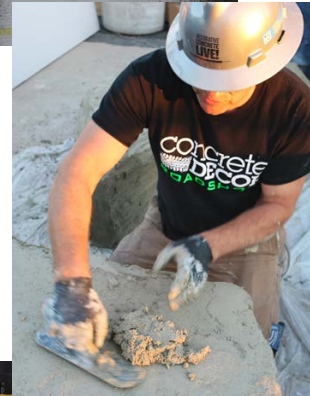
“Cityscapes will bring color to life. Not just natural tones but pastels and vibrant hues will be



Photos courtesy of Concrete Decor archives

used to illustrate the concrete of the 21st century,” Mikkelsen says.

If you thought the previous years were inspiring, hold on to your hard hats. 🧢





# DECORATIVE CONCRETE LIVE!

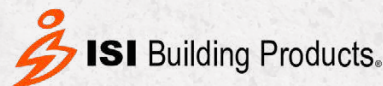
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## New concrete moisture meter fully complies with ASTM F2659

Wagner Meters, manufacturer of wood and concrete moisture measurement instrumentation since 1965, recently released the C555 Concrete Moisture Meter, a handheld electronic meter for comparative measurement of concrete and other surfaces.

It's designed to be in full compliance with ASTM F2659 to assist in preliminary evaluation of the comparative moisture condition of concrete, gypsum, and other floor slabs and screeds.

The versatile C555 also features an onboard ambient temperature and relative humidity sensor as well as a "Relative Measurement" mode for comparative measurement of other smooth surface materials such as brick or cement block. The C555 comes with an "On-Demand Calibrator" platform to perform fast and easy calibration to factory settings while in the field.

"The C555 provides a valuable nondamaging surface scan capability that works in conjunction with the Rapid RH L6 system. ASTM F2170 specifically outlines the number of sensors to be utilized for a given square footage but gives little guidance on where to place them within the project," says Jason Spangler, flooring division manager for Wagner Meters.

"With all of the variables associated with the concrete pour, the water-cement ratio, and aggregate mix, the C555 really gives the user a better methodology for L6 sensor placement by detecting potentially troublesome moisture pockets where L6 sensors can be best utilized."

The C555 features an abrasion-resistant Teflon sensor surface and a protective rubber boot for durability as well as a 1-year warranty.

[www.wagnermeters.com](http://www.wagnermeters.com)

(844) 746-3764

## Polyaspartic topcoat provides matte finish

Versatile recently introduced 5018M, a two-component polyaspartic topcoat designed to provide a matte finish in a single application. The topcoat has a low viscosity that makes it easy to apply while providing great flow and leveling. It exhibits excellent chemical and wear resistance due to the crosslinking of the series film in the cure. It's extremely user-friendly without having sacrificed the performance of the finished product.

Use 5018M to create a natural stone look over finished floors. It's ideal to be used as a topcoat over Versatile flooring systems such as Lava Flow Metallic Epoxy or Roll on Rock, and over a clear primer for a matte finish. It can be applied by squeegee, brush or roller.

The topcoat can be use on garage, retail and industrial floors, as well as for exterior applications. It can be used with most previously coated floors, but you should consult with the manufacturer before applying.

[www.garagecoatings.com](http://www.garagecoatings.com)

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## All black tools deliver power

To commemorate Black Friday, Metabo HPT (formerly Hitachi Power Tools) has launched an 18V Brushless Driver Drill and 18V Brushless Impact Driver in all black.

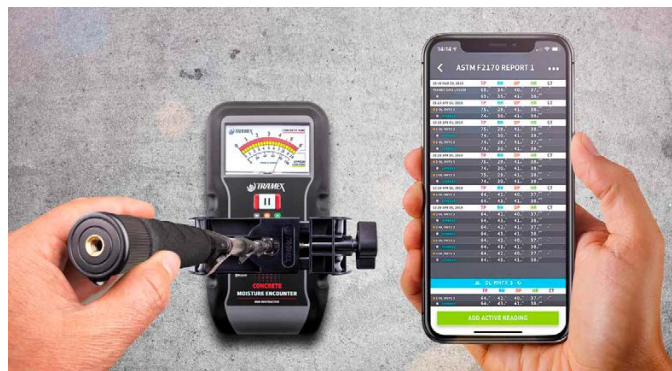
These tools both come with a 1.5Ah lithium ion battery pack and are compatible with all Metabo HPT and Hitachi 18V slide-type batteries, as well as the MultiVolt battery packs.

Also in its trademark black and green, Metabo HPT released an 18V Brushless Hammer Drill and Impact Driver Combo Kit. This kit includes a 36V/18V MultiVolt backwards-compatible battery for up to 5.0Ah of run time per charge and a lightweight compact 3.0Ah battery for improved maneuverability.

The company maintains its brushless motor technology delivers more power to the motor by minimizing unnecessary energy loss through friction and heat. Brushless tools experience longer run time between charges, increased power and extended durability with essentially no maintenance. The signature ergonomic design for the tool bodies makes them extremely well-balanced and comfortable for extended use. They are covered by a lifetime tool warranty and two-year battery warranty.

[www.metabo-hpt.com](http://www.metabo-hpt.com)

(800) 829-4752



## Irish-made moisture meter evolves

Building on Tramex Meters' traditional values of reliability and repeatability of readings, the company has developed the Concrete Moisture Encounter CME5.

Designed and built in Ireland, the new meter can be connected by Bluetooth through an app on your IOS or Android device. It has a rugged ergonomic design, extended battery life and has been optimized for combined testing to improve accuracy. An extension bracket and handle are also available as an optional accessory to avoid kneeling.

[www.tramexmeters.com](http://www.tramexmeters.com)

## Polyaspartic primer can be applied at low temps

Coatings for Industry Inc. has introduced WearCoat 2015, a low-VOC polyaspartic primer that offers quick cure times and can be applied at low temperatures.

WearCoat 2015 is a fast-curing primer, typically ready for mid- or top-coat application in two hours. It may be applied and will cure on substrates as cold as 25°F (-4°C). It also accommodates virtually any normal-temperature application.

The new primer has volatile organic compounds under 100 g/l, qualifying it for use in strict environmental regulation regions like Southern California.

Ideal for use in commercial coolers or freezers, the primer is also well-suited for bakeries, hospitals, restaurants, pharmaceutical and other health care facilities, or food service facilities that require both safety and fast return-to-service.

The coating adheres well to old or new (28+ days) concrete. Offered in one- and three-gallon kits, it works well with virtually any mid- or top-coat products, including polyaspartics, as well as epoxy- and urethane-based products.

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### Cordless light equipment delivers

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All system components operate off one compatible battery system.

[www.milwaukeetool.com](http://www.milwaukeetool.com)

### New concrete product reduces carbon footprint

EP Henry, a North American manufacturer of unit concrete products, in collaboration with Solidia Technologies, a cement and concrete technology start-up, has introduced the world's first products made with low-carbon Solidia Concrete. Using LafargeHolcim's Solidia Cement as its base, which requires lower temperatures during production and emits less carbon, the products are cured with CO<sub>2</sub> instead of water, reducing their overall carbon footprint up to 70% compared to traditional concrete.

Since 2013, the firms have collaborated to integrate the systems into EP Henry's Wrightstown manufacturing facility.

Through their combined research and development efforts, the firms demonstrated the many benefits of Solidia Concrete over traditional ordinary portland cement-based products, including enhanced color vibrancy, the near elimination of primary efflorescence, improved durability and greater resistance to de-icing salts. The products also gain full strength in 24 hours compared to the 28 days required for traditional steam-cured concrete.

EP Henry's new pavers and blocks gain their performance advantages as a result of Solidia's new chemistry, which can be produced at traditional precast concrete manufacturing facilities using standard equipment but with a conversion of curing kilns to CO<sub>2</sub>.

In addition to offering product enhancements, Solidia's patented processes offer manufacturers considerable energy savings and cost reductions and just-in-time production capabilities, significantly reducing inventory storage requirements. Solidia Concrete products can also be recycled before curing, significantly reducing manufacturing waste.

Today, EP Henry products made with Solidia Concrete are being installed in the Mid-Atlantic and Northeast U.S.

[www.ephenry.com](http://www.ephenry.com)

[www.solidiatech.com](http://www.solidiatech.com)

### Swedish company launches products in U.S.

Hultafors Tools, a Swedish company that acquired Johnson Level & Tool, recently launched its products in North America. The company's lines include more than 120 hand tools such as striking tools, demolition tools, chisels, knives, marking tools, levels and storage products.

The company was founded in 1883 when a Swedish engineer invented the folding rule. Hultafors Group is one of Europe's largest companies to supply workwear, footwear, head protection, hand tools and ladders for professional users.

[www.hultaforsgroup.com](http://www.hultaforsgroup.com)

### Kit converts grinder into wet tool

Alpha Professional Tools recently introduced the newest addition to its Wet Blade Cutting Kit lineup. The WBC9KIT is designed to easily convert a large grinder into a wet cutting tool with a water feed system. It's a simple way to comply with the OSHA silica rules with a minimal investment.

The kit fits on most 7- and 9-inch high-speed angle grinders and comes with multiple connectors.

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## Coatings qualify for LEED v4

Three Prosoco products — Interior Masonry Dustproofer, Siloxane WB Concentrate and BMC II — now contribute to LEED v4 low-emitting materials credits after independent testing by Berkeley Analytical.

The products help design professionals achieve the IEQ Low Emitting Materials credit.

Siloxane WB Concentrate solves a problem by protecting interior parking decks from water and salt. Interior Masonry Dustproofer helps stabilize chalky, exposed brick interiors during existing building retrofits. And BMC II has been a specified solution for decades on projects needing tough protection from a coating with exposed CMU, masonry and concrete.

Through independent testing with Berkeley Analytical, these products conform with the California Department of Public Health Standard Method V1.2. They also qualify for project teams using WELL, Collaborative for High Performance Schools, and green building codes such as CALGreen, ASHRAE Standard 189.1 and the International Green Construction Code.

Since 2008, Prosoco has partnered with Scientific Certification Systems for verified third-party certification. With these additional products becoming certified, Prosoco now offers 21 LEED v4-ready products with the SCS Indoor Advantage Gold certification.

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King Abdulaziz Center for World Culture (Ithra) in Dhahran, Eastern Province, Saudi Arabia, was awarded the highest honor.

Photos courtesy of American Concrete Institute

## ACI Names Winners of 2019 Excellence Awards

**T**HE American Concrete Institute honored the winners of its 2019 Excellence in Concrete Construction Awards during the institute’s concrete convention and exposition in October in Cincinnati, Ohio.

The highest honor was presented to King Abdulaziz Center for World Culture, located in Dhahran, Eastern Province, Saudi Arabia.

Also known as Ithra, the Arabic word for “enrichment,” the King Abdulaziz Center for World Culture is a 914,930-square-foot (85,000-square-meter) building surrounded by Knowledge Park, a sprawling space that inspires the imagination.

Features of the structure include post-tensioned slabs spanning 52 feet (15.9 meters), sloped concrete walls and ramps, and twisted and inclined reinforced concrete columns with a

decorative concrete finish. The 295-foot-tall building is supported on a 10-foot-thick raft foundation.

A reinforced concrete core acting as a propped cantilever provides stability. The columns supporting the elevated slabs are inclined and result in horizontal thrust forces at the head and base of each column lift. The post-tensioned slabs act as structural diaphragms to carry these forces back to the core. Construction was completed in fall 2017.

The ACI Excellence in Concrete Construction Awards were created to honor the visions of the most creative projects in the concrete industry, while providing a platform to recognize concrete innovation, technology and excellence across the globe. To be eligible for participation in the Excellence



Awards, projects needed to be winners at a local ACI chapter level and submitted by that chapter or chosen by one of ACI’s international partners.

An independent panel of esteemed industry professionals judged projects and selected winners based on architectural and engineering merit, creativity, innovative construction techniques or solutions, innovative use of materials, ingenuity, sustainability, resilience and functionality.

Other winning projects included:



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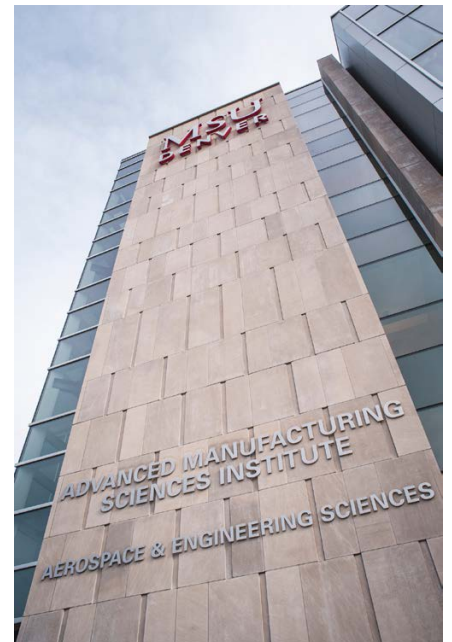


## Decorative Concrete

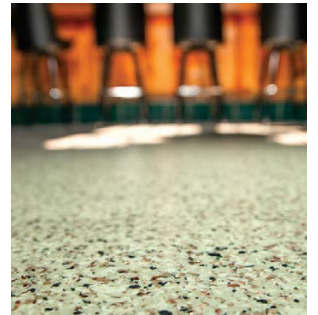
**First Place:** Qatar National Library, Doha, Qatar.

The Qatar National Library is one of the first buildings in Qatar with cast-in-place white concrete, so the project faced the challenges of workability, placing methodology/sequence and finishing. To provide an unobstructed view and vast plaza space within the building, the entire roof is supported by 4-foot-diameter columns. To transfer loading, multiple columns required a structural steel cruciform to be cast embedded for the structural connection. With some columns 59-feet high, multiple placements were required.

**Second Place:** Metro State University of Denver – Aerospace & Engineering Sciences Building, Denver, Colorado.







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**High-Rise Buildings**

**First Place:** Generali Tower, Milano, Italy.

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**Second Place:** (not pictured) Statue of Unity, Gujarat, India.

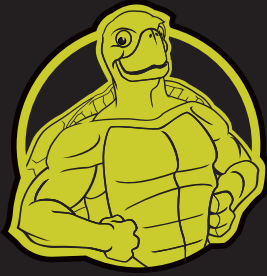


**Infrastructure**

**First Place:** I-91 Brattleboro Bridge – Concrete Bridges to Nature, Brattleboro, Vermont.

Designed for an enhanced service life of 150 years, Vermont’s first concrete segmental bridge used 18,882 cubic yards of concrete. The 4,000 psi footings were constructed with 700 cubic yards mass concrete placements completed without using cooling tubes. A main aesthetic feature, the bridge’s signature quad wall piers were cast-in-place using 6,000 psi self-consolidating concrete. The quad wall piers provided stability and allowed for the balanced cantilever segmental construction of the bridge superstructure to be built from above using 8,000 psi high-performance concrete.

**Second Place:** (not pictured) Goethals Bridge Replacement Project: Elizabeth, New Jersey.



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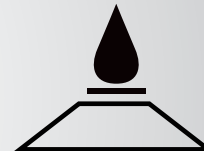


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## Low-Rise Buildings

**First Place:** Hamad Port Project – Design and Build of Visitors Centre, Doha Port, Doha, Qatar.

Housing a high-end aquarium, this building is all concrete except for the roof of a pyramid exhibition area. A creative solution for the aquarium involved isolating its raft with a gap from the main building raft.

The engineering merits include mitigation of the risk of cracking, isolation of the aquarium from movement in the main building, and provision for local repairs to the aquarium’s raft.

**Second Place:** (not pictured) Anastasis Church, Ille-et-Vilaine, France.



## Mid-Rise Buildings

**First Place:** King Abdulaziz Center for World Culture (Ithra), Eastern Province, Saudi Arabia.



**Second Place:** (not pictured) MGM National Harbor, Oxon Hill, Maryland.



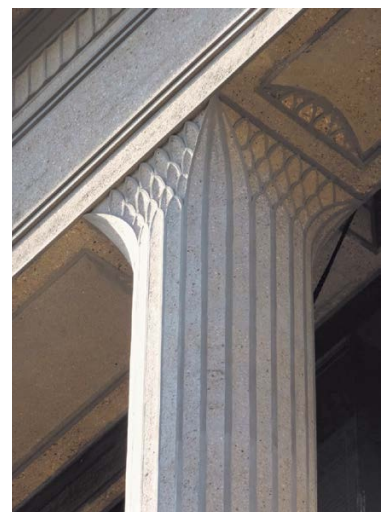
## Repair and Restoration

**First Place:** Palais d'Iéna (Restoration of the Façades), Paris, France.

To restore the building’s façades beyond a simple renovation, the causes of degradations and their consequences were analyzed. A specific protocol was developed, phasing the work to reproduce the existing hammered concrete finishes. Rust was removed from the soft iron reinforcing bars and decayed concrete eliminated beyond the reinforcement. After a few weeks, the concrete was hammered. For the raw concrete, specific formwork was used to reproduce the building’s original board marks.

**Second Place:** (not pictured) Lake Peachtree Spillway Replacement, Peachtree, Georgia.

Winning project details can be found at [ACIExcellence.org](http://ACIExcellence.org). Entries for the 2020 Excellence in Concrete Construction Awards are being accepted now through April 6, 2020. 📄



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## Focus on the Big Picture: How to Dominate on Instagram

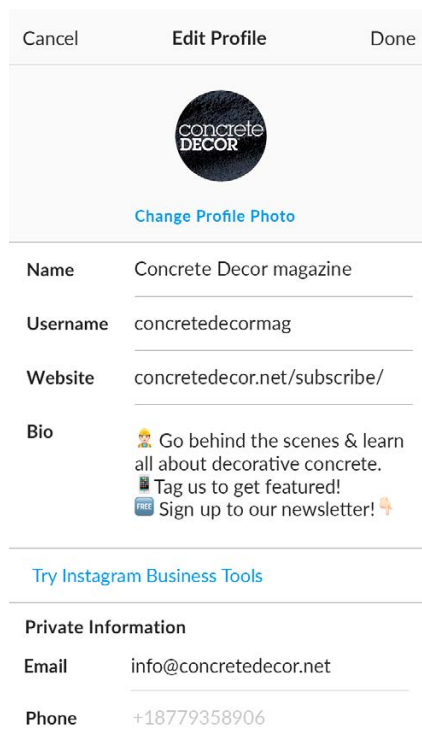
by Danny Barrera

**T**O some, Instagram may seem like a platform where you go to look at pretty pictures all day. But did you know it can be a powerful money-making marketing tool that brings project opportunities for your decorative concrete business? What if I told you that by using Instagram correctly for your business, you can get discovered and dominate your market?


With just a few changes to your account, you can start driving more engagement to your page. This engagement drives trust and trust drives sales. If you follow at least one of my tips, you'll see a dramatic change in your profile. If you use all of them together, you can turn your Instagram profile into a project-getting machine.

### Optimize your Profile Bio

The first step in making over your Instagram account is to optimize your Profile Bio. Think of it as your business card. You can have a plain and dull business card, or you can have one that stands out from the rest.



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Start with making your Profile Bio public so everyone can see your page. To show potential clients who you are, your bio should feature your logo not a personal picture of you. This helps people identify you quicker and helps with brand recognition.

In the bio section include who you are, what you do, who you service and the action you want your prospects to take if they're interested in learning more about you. Add a link to your website, your phone number and your business email. If you have a storefront, list the address.

Your bio should present a clear picture of who you are and what you do. Your bio is your client's first impression of your company. Use emojis to add emotions and get more engagement.

### Create good content

When posting content, your most important goal is making sure you're speaking to ideal clients. The best way to determine what ideal clients want is to ask current or past clients directly. Set up a call with your favorites and ask questions about your service, why

they hired you and what they expected from you.

Another way to learn what your ideal clients want is to read your reviews. This will provide all the information you need to create the wording for your posts. Make sure you also understand your ideal clients' hobbies, interests and group affiliations. Chances are you'll have a lot in common with them which, in turn, builds trust.

Posting your content on a consistent basis helps bring more engagement to your profile. The more engagement you have, the more Instagram rewards you by showing your content to more potential clients. Likes and comments are good, but saves and shares are better.

Strive to create content that's so good your followers will save it and share.

Every share amplifies your content to a new audience, and a save means people will come back and see your content later.

Great concrete contractor feeds contain beautiful, clear pictures without any debris or construction equipment unless it's part of the story. Branding your content with your logo will ensure your brand is always consistent.

Hiring a photographer for a couple of hours a month to photograph your jobs is a great way to secure tons of content for your feeds and get pictures with your team and clients. The photographer should also take pictures of your work's details because this attention to detail is what sets you apart from all other concrete contractors.

Your work should be highlighted in your feed to showcase what you can offer to potential clients following you on Instagram. Investing in a photographer to take good pictures is an indispensable yet affordable investment.

If you feel like you don't have time to post every day, plan your content in advance and use programs like Hootsuite, Plann or Planoly to schedule posts in advance. Set aside one to two hours on Sunday night and schedule all your posts for the week. Showing up consistently on Instagram will reward you with more engagement on your profile.

### Talk to your ideal client through videos

Videos on your feed are viewed 60% more than pictures. You can create short one-minute videos that answer why, how and what.

For example, you can create videos explaining, "Why I started my decorative concrete company," or "How spending a little extra installing Y product can save you a lot of money in the long run," or "What you should know about installing a concrete patio in the summer." Addressing topics like these get potential clients involved in knowing you, liking you and trusting you.

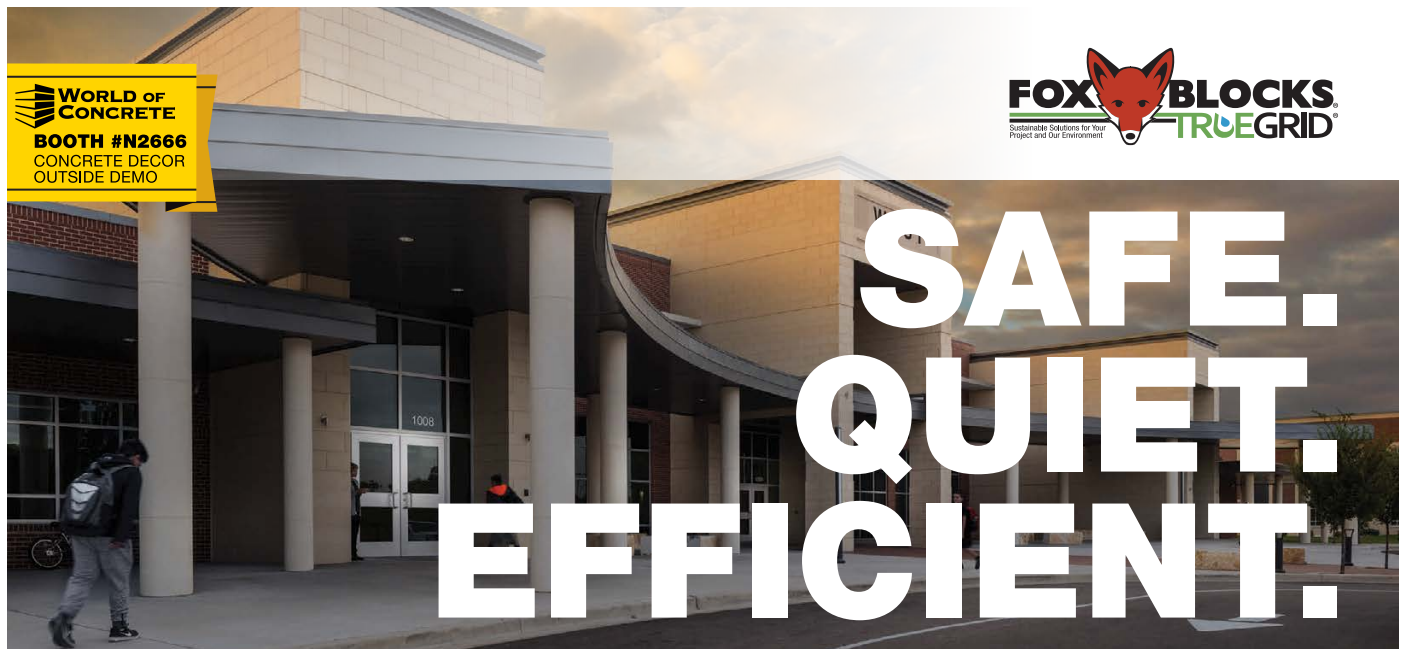
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Another great performing video involves highlighting work you did for recent clients. Testimonials and reviews are always a wonderful source of content because they show potential clients they can trust you and the work you do.

In the concrete contractor world, videos and tutorials are a great way to get your content saved and shared. Video posts are sure ways to connect to ideal clients and ensure engagement on your profile.

## Get personal on Insta Stories

As a rule of thumb to keep you front and present with your growing audience, you should post at least four Insta Stories or upload one 60-second video every day in your Instagram Stories. This alone will make your profile stand out.

Instagram Stories are the most personal form of communication on the app's entire platform. In Insta Stories you can talk about something you're grateful for or you can describe a great tool you use. This feature is more for what you think or like. You're building a one-on-one connection with your audience and this builds trust.

A good way to do this is by using engagement stickers. Use the Poll sticker to ask "yes or no" questions, and the Questions sticker to get direct responses from your clients. Gifs and music add an extra touch to your Insta Stories videos. They catch your clients' attention and entice them to watch what you have to say.

Mentioning other accounts on your Insta Stories using the @Mention sticker is a great way to tag the companies that make the materials you use. It might even prompt them to share your story on their accounts which drives more traffic to your page.

It's proven that on Instagram, sales are completed via Direct Message.



Stories are the best and quickest way to get into another account's DM. Posting stories that call your viewer to message you directly via DM is a sure way to drive clients into a position where you can talk about jobs.

Responding to stories on other accounts also places you in a position of trust because you build a connection with your ideal client in their DMs. It's an effective way to start communication with a potential client.

## Become your own producer on IGTV

IGTV is Instagram's version of a video library, and it's like TV. Videos on IGTV are especially great for decorative concrete contractors because they allow you to create longform video content. This is especially helpful when giving a tutorial on how to use a new product or showing a technique you created.

IGTV videos can also be great to show a time-lapse of a project you're working on. Viewers on IGTV are looking for a more polished video than on your stories or feed. Editing your videos using apps like InShot and Adobe Premiere Rush will give you an extra edge over your competitors.

When formatting your IGTV post, you can add a link to your website in the description. The Instagram "swipe up" feature is reserved for accounts with 10,000 followers or more. However, regardless of the number of your followers, you can add a "swipe up" feature in your stories to connect to your IGTV videos.

## Use #hashtags the right way

Using hashtags is inevitable when posting on Instagram if you want to expand your content reach. Instagram exposes you and your page to everyone that either looks up the hashtag or follows it on their feed. It's great exposure, but if you don't use them the right way, you'll get lost in a sea of posts.

We like to follow a rule when using hashtags in our posts: Have a good blend of different hashtags with a varied number of posts. For example, if you add a hashtag that has a million posts, your post won't reach one of the top spots unless it has a lot of real quick

engagements.

Choosing a hashtag that has, say, 500,000 posts will give you a better chance of being seen. We recommend a good balance of hashtags that have between 10,000 and 700,000 posts and are relevant to your ideal client.

Using location hashtags will get you discovered by locals. Say you service San Diego. You might consider using #sandiegolife (369k posts), #sandiegogram (197k posts), #sandiegoliving (483k posts), #sandiegohomes (69.5k posts), #sandiegomom (94.1k posts) and, if you just finished installing a decorative concrete job at a restaurant in San Diego, use #sandiegofood (201k posts), #sandiegofoodie (112k posts) and #sandiegofoodscene (10.1k posts).

Want to get discovered by more architects? General contractors? Construction companies? Spend some time researching hashtags and make sure they're relevant to your audience. Using hashtags is almost like a radio station playing a jingle to entice you to tune in. Test, rotate, have fun and see what works for you!

When researching your perfect hashtags, create different groups containing five to 30 hashtag combinations. This way you can rotate them every time you post. You can post the hashtags in the caption section or the first comment. Posting in the first section makes your feed look neater and drives engagement as followers are curious to see what's posted in the comment section.

Last, but not least, consistency is what wins on Instagram. Find your most engaged audience via your Instagram insights, see what days your audience is most engaged with you and, if you have a winning post that's getting tracked, boost it by targeting people with titles or interests who you want as clients. 🖋️

*Danny Barrera, owner and founder of Concrete Marketing Crew, has more than 10 years in the digital marketing space. He specializes in helping residential and decorative concrete contractors grow their business online to their maximum potential by integrating proven internet marketing to their business. He can be contacted at (305) 902-4888 or*



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In situations where the existing concrete slab is in too much disrepair to be polished, a polishable overlay is often the route customers opt to take.

Photo courtesy of Ardex Americas, © TTM Finishes Inc.

# Mock-ups: WHY THEY MATTER

by Craig Morris

**P**OLISHABLE overlays are a popular alternative to polished concrete where the existing concrete slab isn't a good candidate to be polished. Infilling trenches, patching, spalling and removing existing modular floor coverings often result in a concrete surface that doesn't meet with customer approval.

Additionally, wavy concrete and edge curl will often yield a polished surface with varying degrees of aggregate reveal. While this may be acceptable to customers, often a flat, smooth, level surface with predictable aggregate distribution is what they really want. In these situations, a polishable overlay is often the answer to achieve that look.

With polishable overlays, as with polished concrete, one consideration above all others will ensure the success of the installation — managing customer expectations. This is best achieved through creating a mock-up on the project site.

## On-site mock-ups

During my tenure as a technical manager for an overlay manufacturer, as well as in my current role as business development manager, I've seen firsthand how mock-ups are critical to managing customer expectations so that potentially contentious claims are avoided. What is discouraging is how rarely I've seen them placed.

Many of the polished overlay claims I managed dealt solely with a failure of the overlay to meet the anticipated aesthetic. On such claims, my first question was, "Was the mock-up approved?" Unfortunately, this simple question was frequently met with silence, an acknowledgment that one wasn't performed or that the topping was approved based on a hand sample.

At this point, the situation would often devolve into a series of finger pointing that yielded little but frustration for all involved. The result was an unsatisfied customer and an

installer with a compromised reputation.

So why are mock-ups so rarely performed? I believe many installers don't appreciate their value and deem them too costly or time-consuming. For a finished surface that's unique and where the final surface is manufactured on-site, this can be a costly error in terms of money and reputation. For those who want to showcase their abilities using polishable overlays, start by managing your customer's expectations. This is greatly facilitated through the mock-up.

First, let's define what we mean by a proper mock-up. For the customer to understand the aesthetic of the polished overlay, a mock-up must meet the following criteria:

**Proper size** — Mock-ups should be a minimum of 90-100 square feet. At this size an understanding of the final aesthetic is achievable which can't be attained with hand samples or smaller footprint mock-ups.

Aggregate reveal, blemishes, smoother marks, spike roller marks (where used), mottling and polymer lines are evident in larger footprint mock-ups. When these same characteristics inevitably appear in the general installation, they are anticipated and appreciated for the uniqueness they add to the character of the polished overlay.

**Proper placement** — The mock-up must be placed in the installation area. This allows the polishable overlay to be evaluated under the space's ambient light. As with any flooring finish, the aesthetic will be affected by its environment. Natural and artificial sources of light unique to the installation space will impact the polished overlay's final aesthetic.

**Equipment, tooling and talent** — The mock-up must be placed using the equipment, tooling and talent that will be doing the general installation. Mock-ups are designed to provide an accurate representation of the installation throughout the larger space.

Process replication, from mock-up to general installation, can only be achieved where the equipment, tooling and talent are the same. This includes the use of any chemicals (grout coats, densifiers, sealers, etc.) that will be used for the general installation.

Each of these criteria are achievable with a temporary mock-up.

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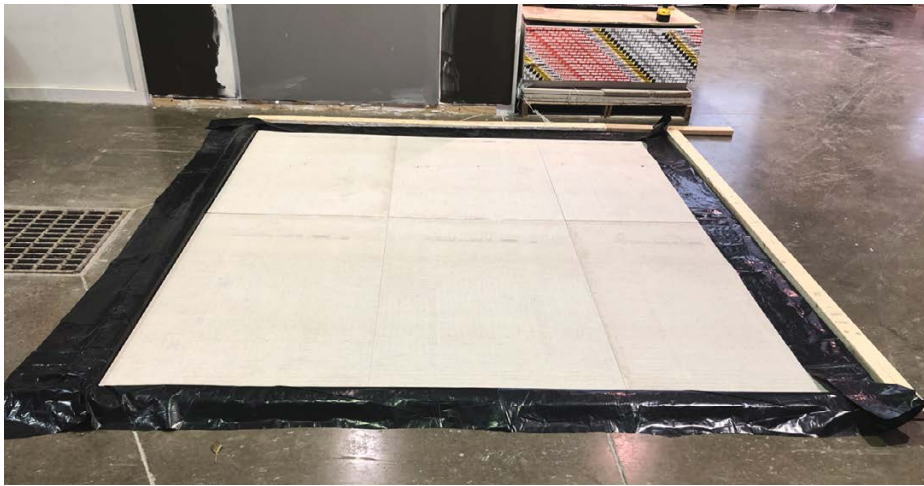


Photo courtesy of Ardex Americas

Temporary, transportable mock-ups can be easily created with six cementitious backer units and the polishable overlay material. The CBUs should be placed three across and two deep over 10-mil plastic and framed with 2-by-4s. After the CBUs are prepped and primed, they're ready for the overlay to be installed.

## Temporary, transportable mock-ups

Temporary, transportable mock-ups are simply and quickly created using cementitious backer units (CBUs) and the polishable overlay material. A temporary, transportable mock-up provides several advantages.

First, the mock-up may be created at the installer's facility and transported to the job location. It can be created without delay or interruption by other trades at the project site. When completed, the mock-up is transported to the project site where the customer can evaluate it under the installation area's ambient lighting. (A temporary mock-up may also be done on the project site when conditions are favorable.)

Once approved, the mock-up may be disassembled and placed in storage for reference should issues arise after the general installation is completed. Issues related to the general installation failing to meet the desired aesthetic may be quickly resolved by reassembling and referencing the mock-up.

Issues related to removing or integrating a mock-up that's bonded to the concrete substrate on the project site are eliminated.

Creating a mock-up allows the installer to establish a process that can be followed for the general installation.

Creating a temporary mock-up using CBUs is a rather simple exercise. A sufficiently sized mock-up will require 6 CBU panels (3-foot by 5-foot by ¼-inch CBUs are recommended for ease of assembly/disassembly, transportation and storage). This will create a 90-square-foot mock-up which is typically large enough to fairly evaluate the polishable overlay's aesthetic.

The materials required and the process to follow to make temporary mock-ups are detailed below:

### Materials

- 10-mil plastic
- 6 CBUs @ 3-foot by 5-foot by ¼-inch
- 4 wood studs @ 2-inch by 4-inch by 10-foot
- Painter's caulking
- Polishable overlay primer
- Polishable overlay material (adequate material for 90 square feet at the desired depth)
- Chemicals (densifiers, grout coats, sealers/guards, etc.)


### Process

- Place 10 mil-plastic over a 10-by-11-foot area of the concrete.
- Place the CBUs three across and two deep creating a 9-by-10-foot footprint.

- Frame the CBU platform with 2-by-4 wood studs.
- Overlap the frame with the plastic that extends beyond the CBUs.
- Skim over (not in) the joints between the panels with painter's caulking. This will prevent the primer and overlay material from seeping into the seams where they can bond the panels together making panel separation more difficult.
- Prime the CBUs with an acrylic primer (sand-broadcasted epoxy primers typically specified for polishable overlays aren't recommended for the mock-up).
- Install the polishable overlay at the desired depth.
- Remove the frame after the polishable overlay has cured.
- Polish the mock-up according to manufacturer's recommendations.

Use the same equipment, tooling, talent and polishing process on the mock-up that'll be used on the general installation. This eliminates the polishing process as a variable that could impact the finished surface.

After approval of the mock-up, the CBUs can be carefully lifted, separated and stored for future reference.

Managing the customers' expectations when it comes to the final aesthetic provided by a polishable overlay is critical to the project's success. Managing those expectations starts with the mock-up. For your peace of mind and your customers, incorporate the mock-up into every project where a polishable overlay is specified. 

*Craig Morris, a 36-year veteran of the flooring industry, is business development manager of finished surfaces for Ardex Americas. In that role, he promotes an appreciation of polishable overlays and educates contractors about installation and maintenance procedures and protocols. You can reach him at [craig.morris@ardexamericas.com](mailto:craig.morris@ardexamericas.com).*

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The minimalist look typical of the Microtopping coating can be seen here in this apartment in Belgium (*above*) and a showroom in Italy (*right*).

Photos courtesy of Ideal Work

# MONOLITHIC, MINIMALISTIC

TWO SURFACES, ONE CANVAS

BY JOE MATY

IMAGINE the convenience and versatility of a decorative concrete finish that can be applied to walls or floors.

Actually, it's not a matter for the imagination. Such decorative finishes already exist.

A more striking facet of these materials, however, may well be their role in enhancing visual effects in certain architectural settings — spaces where “less is more” in terms of color or mind-bending decorative patterns.

Such is the proposition put forth by Ideal Work, an Italian-based developer of cementitious coatings and other decorative finishes. And Exhibit A in Ideal Work's case for this concept is museum space.

“Museum buildings, like art galleries, have to act as a blank backdrop that show (art and other items on display) at their best, making them easy to follow, access and comprehend,” Ideal Work notes in marketing literature highlighting museum-space applications of its Nuvolato Architop, Microtopping and Lixio products.



Although they can't be applied to vertical surfaces, Ideal's Nuvolato Architop and Lixio are good candidates for seamless surfaces or more traditional treatments on floors. Nuvolato Architop can be used to create polished floors over existing or new floors, with a “minimal depth” application process. And Lixio delivers a “more traditional finish” for existing floors, similar to terrazzo, with exposed aggregate in various sizes and colors.

Ideal's versatile Microtopping product can be used to create matching, seamless floor and wall surfaces in new builds and refurbishments. With a nominal thickness of just 3 mm, it provides a “perfect, almost anonymous,” background,” according to Ideal Work.

“When viewing real pieces of history or art, no one wants to be distracted by ‘clever’ architecture, bright colours and heavy textures,” notes Giovanni Fonte Basso, communication manager.



Microtopping is a great choice for those who want a continuous surface without any visible joints. It's ideal for both horizontal and vertical surfaces including stairs. The coating is used in residences (*above*) as well as showrooms (*right*).



## Going micro

“Microtopping is elegant, versatile, metropolitan and minimalist,” Basso says. The material has been used at Memorial Centre Lipa Remembers museum in Lipa, Croatia; the Teseum Museum in Tongeren, Belgium; and the renowned Palazzo Ducale (Doge’s Palace), one of the main landmarks in Venice.

The company spokesman says the cementitious material can be used to renew existing surfaces of various types — concrete, self-leveling, ceramic, wood or others — without removing these substrates. The product is described as highly resistant to weather change, easy to clean and quick to install.

Ideal Work uses the term “continuous space” to describe the decorative effect created with the microcement in a minimal modern environment where the surface stands out as the main feature, or a “classic, rustic or vintage environment where it completes the style with refined discretion.”

The minimalist approach, essentially.



Photos courtesy of Ideal Work

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## Minimalism, American edition

But before all the credit for this minimalist wave goes to Ideal Work and other makers and users of these kinds of finishes in Europe, American contractors such as Dominick Cardone of Diversified Decorative Finishes Inc. offer a dissent.

At least on the East Coast, minimalism, as opposed to polychromatic excess, is very much in play, says Cardone, who's based in Brooklyn, New York. Cardone frequently uses materials from Duraamen Engineered Products Inc., including the company's Skraffino concrete microtopping, in his decorative endeavors.

Cardone cites a recent project of his — a high-end residential building lobby in New York City — as an example of the minimalism approach, East Coast edition. He used the Skraffino microtopping in a warm gray tone to produce a muted, neutral background for the decorative pieces and furnishings that the project designer made prominent in the lobby space.

On the walls, composed of sheetrock, Cardone trowel-applied two coats of Skraffino. He opted for a 50-50 mix of the fine and superfine grades of the microtopping, using the white base color. The first coat dried overnight, then was sanded and cleaned prior to the second coat being applied.

Cardone used a mix of gray and brown colors added to the white base color to produce what he calls a “warm gray.” An acrylic clear sealer completed the treatment.

On the new concrete floor, Cardone also used the Skraffino microtopping. Here, he started with grinding and minor repairs, then applied Duraamen's Param 5500 self-leveling underlayment — a cementitious calcium aluminate material.

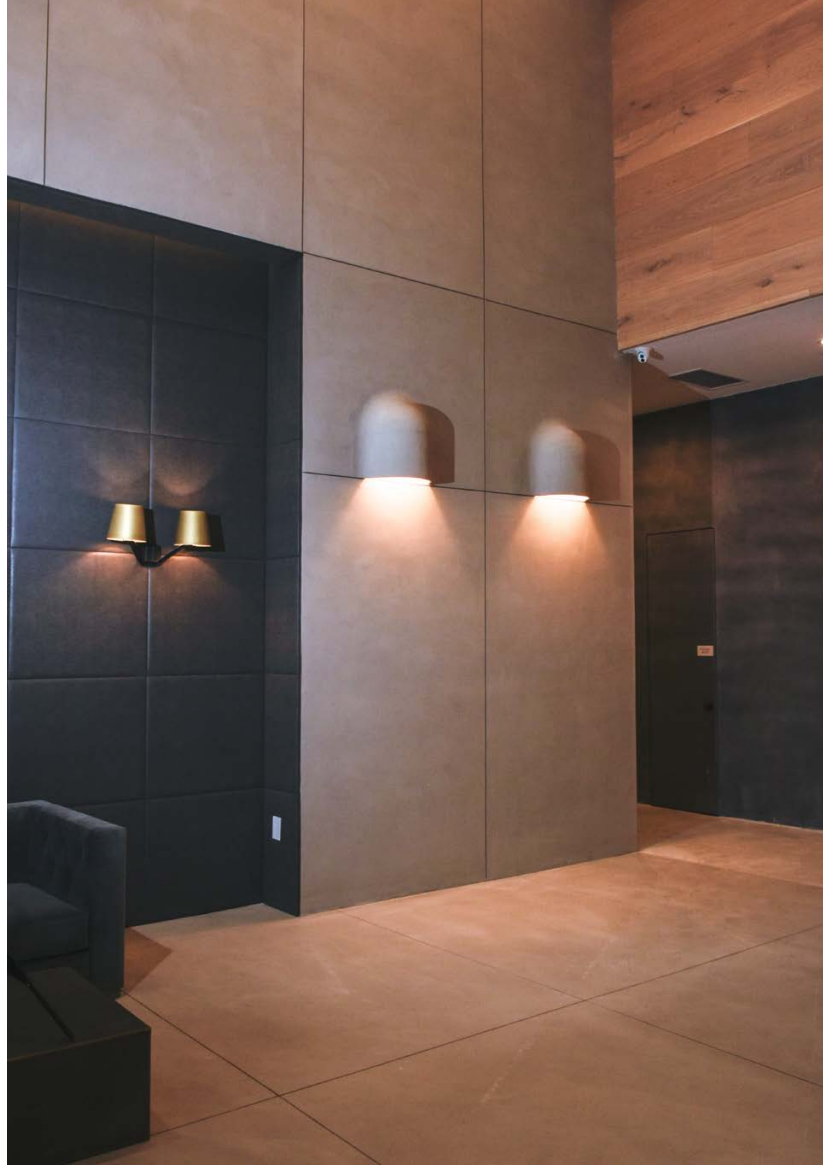
This provided a “beautiful canvas,” he says. Following dry, he mop-applied the Duraamen CP1000 acrylic dispersion, which also serves as the copolymer component of the Skraffino system, as a primer. The Skraffino was trowel-applied in two coats, with a screening in between using a floor polisher. The first coat was done with the fine grade of the microtopping, followed by a fine-superfine mix for the topcoat.

The work was completed with another sanding, an application of a 100-percent solids clear epoxy, another sanding, and finally an application of a clear urethane sealer.

Sealer performance looms large in these kinds of floor applications, Cardone emphasizes. Here, “It's made to stand up to traffic,” he says.

A Duraamen spokesman says Skraffino is specified where designers and owners opt for seamless concrete walls. Contemporary high-rise buildings, lofts and apartments are typical candidates for these kinds of microcement applications.

Duraamen recently rolled out another product, “Arapido,” a sprayable microtopping for concrete designed to be quickly applied to large areas.



The common areas in this residential building in New York City features Skraffino microtopping in a warm gray. The coating was chosen to provide a neutral background to best display the building's decorative pieces and furnishings.

Photos by Jon Farina @jonfarina, courtesy of Diversified Decorative Finishes Inc.

## The 'gallery' effect

Cardone says the monolithic effect of this microtopping application on floors and walls produces a “simple, clean, elegant” look that places the spotlight on other design elements — a darker, leather-clad wall recess in one area and wood paneling in another, and stone and concrete elsewhere. Other furnishings complete the picture.

“In a gallery you want the art or exhibits to pop,” he says. “In retail, you want the product to be the stand-out.” Here, the furnishings and architectural elements take center stage.

This eclectic approach also tends to give the space more depth and warmth, he says.

The microtopping can produce a varied surface texture that adds depth, Cardone says, with the use of the three different grades and a specific trowel technique.

“It can go from rough to highly burnished, so it's up to the designer and the installer.” He applies the term “consistently inconsistent” to a finish that exhibits variation and depth. Lighting also plays a key role in the resulting impression.



CimentArt, a microcement newcomer to the U.S. market from Europe, can be applied to just about any surface, including showers, walls and countertops.



Photos courtesy of CimentArt

## The expanding microcement palette

A new entry in the microcement wall- and floor-treatment portfolio is an import from Europe — CimentArt. The product line, from Spain, has come ashore in Florida, where a new company, CimentArt Florida, has set foot on North America as the U.S. distributor.

“We will be setting up a distribution network,” says John Miles, managing director of CimentArt Florida in Clearwater. A news announcement for the product says CimentArt won awards in Spain for quality and environmental friendliness.

The microcement can be applied to just about any surface and space, Miles says, citing tile, showers, countertops, wood, plaster and plasterboard, concrete, ceramic and porcelain. It should be applied at a maximum thickness of 2 mm to create a continuous coating with marbling effects and no joints. Amazingly the various layers of the base, topcoat, sealer and two-part varnish are strongest the thinner they are, Miles notes. The microcement products also waterproof the surfaces.

The product line is available in a range of colors and includes products to achieve decorative, smooth or stone-like finishes, as well as Oxide, Solid Color, Metallic, Aqua Quartz and Aqua finishes. The product portfolio also includes a mixing resin for the microcement formulas, polyurethane and acrylic sealers, a metallic sealer for “high decoration” with 10 different metallic finishes and an acrylic primer, among others.

Stateside, U.S.-based Ardex Americas makes its case in the wall/floor finish arena with Ardex SD-M, a trowelable cementitious microtopping for resurfacing interior concrete and terrazzo, in addition to ceramic, porcelain and quarry tile.

Though marketed primarily for horizontal surfaces, Ardex notes the microtopping is often specified and used by designers, contractors and other installers on walls. Here, its impact and abrasion resistance and smooth, creamy consistency make for stellar performance. It can be applied in an artistic fashion to emulate a rustic look, as well as a stucco or knock-down finish.

In vertical applications, the microtopping is used to create a “unique aesthetic” on fireplace faces, accent walls and backsplashes in retail, residential, commercial and hospitality settings.



Photos courtesy of Ardex Americas

Although primarily marketed as a microtopping for horizontal surfaces, designers often specify Ardex SD-M for walls to produce a rustic look.

Craig Morris, Ardex Americas business development manager for finished surfaces, advises that for vertical applications, specifiers and users should contact the company's technical department for recommendations and other considerations — particularly where the microtopping will be applied over gypsum-based surfaces such as drywall. 🛠️

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*Dominick Cardone will be one of the featured artisans at Decorative Concrete LIVE! at the 2020 World of Concrete.*

# Skraffino

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# Turning Waste Glass into **Expanded Glass** Completes the Recover/ Recycle/Reuse Circle



Waste glass can be converted into a viable aggregate, pozzolan and supplementary cementitious material (SCM).

Photos courtesy of Poraver

by Traves W. Ogilvie, LEED AP

**H**ISTORICALLY, repurposing glass for use in concrete mixtures has simply involved crushing and grinding the glass to a smaller size. Resizing alone doesn't bring glass processing far enough to create a functional raw material for the concrete industry. Rather than a re-engineered raw material you just end up with a resized material. Crushing is indeed the first step in the process of recycling glass ... but, it can't be the last step if you're trying to create something new and innovative.

The last issue featured an article on using crushed waste glass in concrete. It pointed out the problem associated with this is alkali-silica reaction (ASR). Alkalis, present in portland cement, that encounter "reactive aggregates" initiate a chemical reaction that forms a gel. Add in a little moisture intrusion and the result is a bad day at the beach for the concrete as the gel expands when hydrated.

Signs of ASR are only seen in compact concrete. With expanded glass (EG) as an admixture, you create porous concrete. In these enhanced concretes the swelling pressure caused by the

ASR gels is dissipated through the pores. No hairline cracks, edge spalling, drops of gel or other peculiarities appear.

Expanding glass is a process where crushed glass cullet is upcycled on the particle size level and re-formed into spherical-aerated-granules that don't contribute toward ASR. The material is stable and inert with a chemical composition containing around 71% silicon dioxide ( $\text{SiO}_2$ ). The process of converting waste glass into expanded glass also creates two additional raw materials. (More on this later.)



Seen here are dishes of waste glass (middle), glass flour (left) and expanded glass (right).



Expanded glass can be used as a thick floor screed that insulates and blocks sound.

### The process of expanding glass

After learning how to expand clay for his family's precast concrete business in the Bavarian region of Germany in the '60s and '70s, Hans Veit Dennert upped his game in the early '80s when he discovered how to expand glass. Subsequently, in 1983 he founded Poraver GmbH, the largest producer of expanded glass aggregates worldwide. He still presides over the company today.

Dennert's process begins with a very fine gradation of post-consumer recycled glass called cullet. This unrefined soda-lime glass arrives at the plant simply pulverized to fit into a certain particle size range. The glass is then dried and quickly sent to the ball mill where the glass is ground down to very fine flour (< 36 microns). The glass flour is combined with a silicate binder and an expanding agent and blended into a viscous slurry.

Next the slurry is granulated. For larger grain sizes above 1 mm, a granulating dish is used. Additional glass powder is added to the slurry to form a semidry material which is applied to an inverted rotating dish. The slurry then rolls downhill like a snowball and forms into spherical-shaped grains. The size of the grains can be altered by changing the inversion angle or the rotational speed.

For smaller sizes, the technology is not as simple. To make grain sizes below 1 mm a spray dryer is used. It's a different process from the granulating dish but nets the same result. The slurry is sprayed into a drying chamber, which consists of a four-story conical tower that provides a controlled environment for the slurry to cool and form into spheres.

Along with kaolin clay that acts as a nonbinding agent, the spheres go into a linear rotary kiln that's heated to more than 1,400 degrees F. They then expand 200% and are cooled, sieved and packaged into seven different grain sizes ranging from .04 mm to 4 mm.

During the heating process, the kaolin turns into metakaolin, a reactive pozzolan, also called a supplementary cementitious material (SCM), that can be used to replace ordinary portland cement (OPC). A standard OPC replacement ratio is 15-20% by weight.

The three raw materials created in the glass expansion process are:

**Expanded glass aggregate (EGA)** – This material is an ultra-lightweight aggregate used to reduce density, insulate (R-2/inch) and absorb sound.

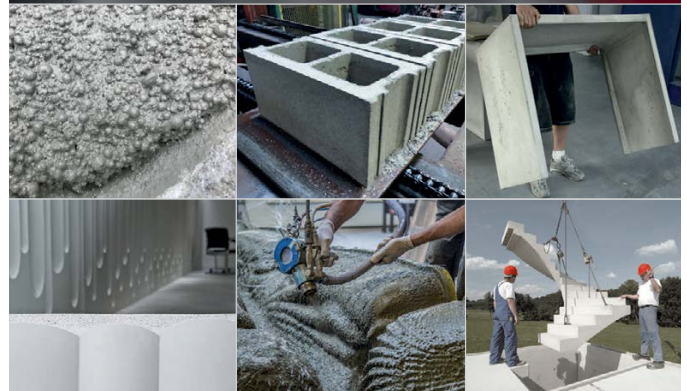
**Glass flour** – This material is processed to a particle size smaller than 36 microns. The flour becomes a reactive pozzolan and can be used to replace portland cement.

**Metakaolin** – This material is an SCM. It, too, is a reactive pozzolan, the softest one on the scale.

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## How to use expanded glass in concrete

First match the particle size of your existing fine sand with the corresponding EG grain size. For face mixes, self-consolidating concrete and sprayable mixes, the EG grain size is typically .25-.5 mm. For gravity-cast mixes, architectural and structural precast, the EG grain size is typically .25-1 mm.

If there are larger aggregates in the mix, you can replace some (or all of them) with EG grain size 1-2.5 mm.

Finally, you must decide how much you're going to replace. This ratio is driven by the concrete's mechanical properties and performance requirements.

A key component of reformulating with expanded glass is to replace the sand in the mix by volume. This is because expanded glass has a specific gravity value less than 0.550. Most sands and aggregates have specific gravity values north of 2.5. Thus replacement by volume is key as expanded glass is nearly five times lighter than silica sand.



Ultra-lightweight concrete made with expanded glass floats in water.

Once you've decided on a replacement ratio, you're ready to mix and cast. Expanded glass uptakes water at a rate of 20-30% mass. One hundred pounds of dry EG will absorb 20 to 30 pounds of water.

This is actually minimal absorption when you consider that 100 pounds of EG is 7 cubic feet, or ¼ yard, of material. The water that weeps into the expanded grains begrudgingly weeps back out of them. This water remains available, within the matrix, for cement hydration.

Expanded glass works as an internal curing agent extending the dehydration time of concrete and dry mortar. This



Artisan concrete furniture can be made with expanded glass.

is due to the initial water absorption followed by a slow return of the mix water to the matrix from within the expanded glass granules.

### Mixing methods and uses

The first method is to take 20% of the calculated mix water and pre-hydrate, or quench, the expanded glass with it. Absorption takes only a few seconds. The EG can then be blended with other aggregates and the mixing process can proceed as usual.


The second method is to run through the mixing process as usual and introduce the quenched EG after the cement, sand, aggregates, water and additives are blended. This method is most commonly used in ready-mix and structural pre-cast concrete operations.

By using expanded glass as a sand and aggregate replacement, three distinct benefits can be obtained:

**Performance benefits** – Including extreme density reduction, improved thermal and acoustic absorption values, protection from ASR, and lowering the e-modulus which makes the concrete less brittle.

**Health benefits** – Including reducing crystalline silica content of the overall matrix since EG contains no crystalline silica. Using EG can help concrete product manufacturers conform to the new OSHA regulations regarding airborne crystalline silica.

**Environmental benefits** – Expanded glass is a sustainable aggregate and is considered 100% recycled content. Expanded glass helps products and projects earn LEED points.

Expanded glass is widely available throughout the United States. It's packaged in various sizes and is also available in bulk for silo storage. 

*Traves W. Ogilvie, LEED AP, is head of sales for the U.S. and Mexico for Poraver North America, the market leader in the manufacture and sales of expanded glass granules. With nearly 30 years of experience in the commercial construction and building products industry, Traves has a broad knowledge of all types of composite materials from concretes and mortars to thermoset FRP and polymer concrete. As a LEED accredited professional, he has worked extensively with the USGBC to quantify how recycled content contributes toward LEED points. Today, Traves travels the country as an expanded glass formulation expert in GFRC, concrete, FRP and polymer concrete. He can be reached at [togilvie@poraver.com](mailto:togilvie@poraver.com).*

*Editor's note: Expanded glass manufacturer Poraver will be at the World of Concrete 2020 as a sponsor and a participant in Decorative Concrete LIVE! Its team will be on-site with its mobile concrete laboratory showing off its latest SCC and GFRC mix designs using expanded glass aggregate.*





## Creations with glass

Inspired by urban living, Eric Weil, sculptor and founder of Oso Industries in Brooklyn, and his team individually handcraft multifunctional furniture and architectural elements featuring concrete and other materials in clean, geometric forms.

In 1996 Weil graduated from Oberlin College where he studied sculpture. He also studied woodcarving in Ghana, where he was inspired by traditional furniture design. After moving to New York City and recognizing concrete's untapped potential for use in design, he focused on this adaptable material. In 2004, he founded Oso Industries, a design studio focusing on new applications of concrete for furniture and custom interior design.

Elevating concrete from its often-considered utilitarian status into beautiful, highly polished surfaces has been his focus ever since. Over the years, the design studio has continued to find new uses for concrete by coupling it with stainless steel, bronze, walnut and colored glass.

Starting with the Rollerboy in 2005, Oso Industries embraced the combination of mobility, multi-functionality and creative use of materials. In 2010, the Rollerboy was reintroduced with a cast concrete body, making it more solid, durable and suitable for outdoor use. It comes in eight standard sizes.



Beginning in 2018, Oso started using Poraver expanded glass in many of its mixes, including using it in all its cast furniture. "The addition of Poraver expanded glass in the Rollerboys has allowed for a 30% decrease in weight, which makes for a better product, is easier for the client to use and cuts down on the shipping costs," says Weil. "The material doesn't add much to the materials costs, as it replaces various sands in the mix."

Alongside with being an integral part in Oso's standard furniture pieces, expanded glass is also being used in the company's backup mixes for precast countertops, sinks and other custom pieces of furniture.



"As a backup and filler material, it decreases the weight of the countertops, making for easier installations without sacrificing strength," Weil says. Overall, he adds, Poraver has become an integral ingredient in the different concrete mixes Oso uses.

The company continues to develop new furniture applications, as well as new lightweight products such as concrete bowls, trays and other household items.

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# Leave a Mark

## with specially made stencils and stains

by Mike Dougherty

**L**EAVE a mark. That sentence can mean different things.

Google that phrase and it tells you: “to have a lasting or significant effect.” Personally, it reminds me of the time my mother left my younger brother, Mark, at a Super America gas station in St. Paul when he was about 5.

After about five minutes of covert snickering at the thought of “leaving our Mark,” I reluctantly informed my mother we should probably go back and get our “Mark” back. After realizing I wasn’t pulling her leg, she hurriedly returned to Super America and found our “Mark” safe and sound.

### Using locally made stencils

In the world of concrete, we constantly strive to leave our mark. The projects we complete are designed to last as long as possible. The Romans started using opus caementicium, or Roman concrete, somewhere around the second century B.C. The most recognizable structure made from that material was the Roman Colosseum which dates to 70 A.D.

As time went on and language and mass communication developed, artisans started using engraving techniques to leave their mark. Fast forward to the new millennium and one can witness the marks artisans have left in decorative concrete all over the world. One of the more popular ways to leave an individualized and unique mark on concrete is to use stencils.

Our company, Concrete Art, has installed numerous projects over the



This stenciled piece of art at the St. Paul Farmer's Market has held up well considering it was installed 19 years ago.

Photo courtesy of Mike Dougherty

past two decades using stencils to create patterns, logos and pieces of public art. One of our first pieces of public art was performed in conjunction with Seitu Jones, a world-renowned artist from St. Paul, Minnesota.

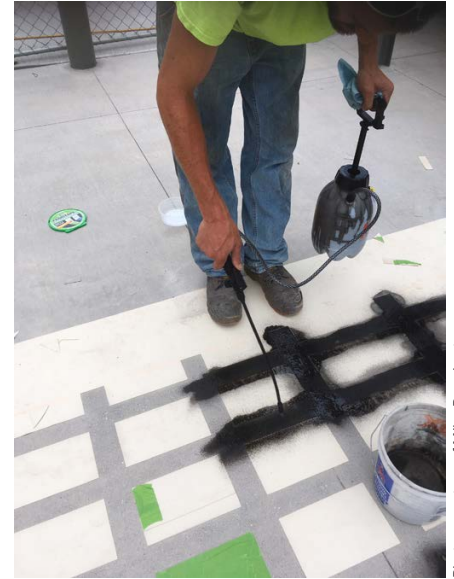
Jones had been commissioned to install a few pieces of public art in the new concrete at the entrances to the newly remodeled St. Paul Farmers' Market downtown. He came up with a series of designs which we had made into stencils at a local Fastsigns store.

After adhering the stencil and peeling out the desired design, we proceeded to sandblast the concrete and then stain it using HLQ-125 from Sinak and tinting it with universal paint tints from Sherwin-Williams. This was back in the day prior to the evolution of today's multitude of

UV-stable dyes. Above, you can see one of the works of art which has held up well for the past 19 years.

“The Farmers' Market was my first time ever doing anything like that,” Jones says. “I remember laying out those designs in Photoshop. I had taken a class in the late '90s to learn Photoshop. There was definitely a learning process to get a grasp on the capabilities of a different medium.”

Another project in St. Paul we worked on with Jones was the Rondo Commemorative Plaza. Again, Jones came up with a design — an artistic spin of a street map of Rondo, a prominent African American area which underwent a decades-long downward spiral due to racism, segregation and hatred.



Photos courtesy of Mike Dougherty

Joe Engel and Josh Beeler from Concrete Arts sandblast and stain artist Seitu Jones' design for the Rondo Commemorative Plaza in St. Paul.

Again, we used Fastsigns to produce the stencil and sandblasted and stained the design. While the Fastsigns stencils produced a favorable result, we experienced some difficulties with adhesion and user-friendly productivity.

Still another stenciled public art project we worked on involved Jones and Brooklyn-based artist Nancy Blum. Jones referred Blum to Concrete Arts to help with some art pieces which would be installed at the light rail station outside the mechanical engineering building on the University of Minnesota campus.

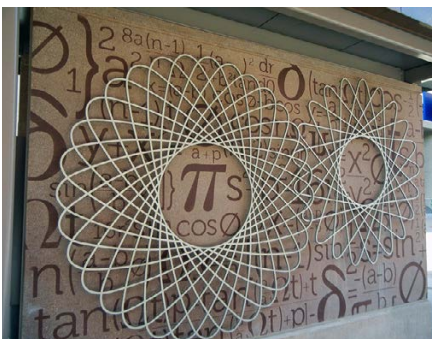
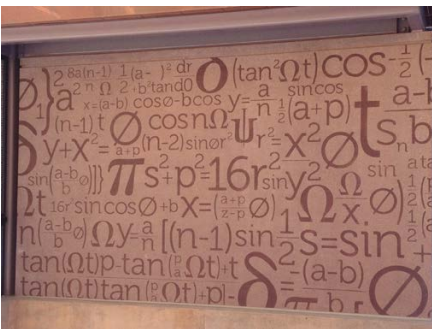
Precast concrete panels were produced and shipped to the Concrete Arts facility where each piece was sandblasted and stained using stencils. As the finishing touch once the pieces were erected on-site, Blum's stainless-steel sculptures were fastened to the panels.

"I was very interested to find a way for the artwork of the spirograph sculptures in the design and the concrete pieces to be married," Blum says. "And as an artist I'm always interested in the relationship between two-dimensional work and three-

dimensional work and the stenciling afforded me the ability to play with the two surfaces. The artwork is dimensional, so it casts shadows which make it come alive."

Being in New York while her concrete pieces were produced in Minneapolis and the stencil work was completed in Wisconsin caused Blum quite a bit of trepidation, but once she saw the completed stencil work she was thrilled with the outcome.

"It was one of the most exciting days I have had as a public artist," she said.



These concrete panels were sandblasted, stenciled and stained for a light rail station at the University of Minnesota.

Photos courtesy of Nancy Blum



Employees adhere stencils made by Floormaps for a Target store in Edina, Minnesota.



After the Tribeca stencil was stained and removed, the crew applies a densifying sealer.

### Turning to stencils made for concrete

Eventually our company learned about Floormaps Inc. out of Bentonville, Arkansas. Owner and creative director Rachel Knigge-Bruce developed and designed a stencil production system specifically for the concrete industry. Her process allows for the multitude of difficulties concrete causes in both blasting and staining applications.

With a background in commercial art and advertising,

she eventually did some freelance work for Ameripolish in 2004 creating stencils on a plotter/cutting machine she could access. In 2007 the relationship with Ameripolish expanded to a full-time position in advertising and training. Taking advantage of the multitude of dye colors Ameripolish manufactured, Knigge-Bruce was provided with a whole new canvas to show artisans how to “leave a mark.”

“I came from a printing background where we used multicolor designs,” she says, “and I figured out a way to essentially print on concrete.”

Knigge-Bruce eventually persuaded Ameripolish to make an investment in additional tooling to satisfy the growing interest in stenciling. She said the more she worked with concrete, the more she realized its untapped potential.

“At first, I didn’t realize I was creating something that was needed in the industry,” she says. “I was just trying to figure out the things which made the process easier. I convinced them (Ameripolish) to let me buy a cutting machine and it just continued to expand from there.”

### Recession slows progress

However, the approaching recession eventually led to her departure from Ameripolish. Knigge-Bruce decided to take some time off to spend with her family and figure out what was next on life’s agenda. In 2009, she founded Floormaps.

“The first year was pretty tough,” she says. “We only did about \$16,000 worth of volume and we ate a lot of ramen noodles that year! But we have doubled in revenue every year since.”

A big source of increased income for Floormaps has been its relationship with Target. Knigge-Bruce says a polished concrete contractor in New York contacted her about four years ago when he was polishing a Target floor in Manhattan.

The floor was old and beat up with multiple flaws and a tile pattern which was ghosting through. She says the retailer was about to scrap the idea of polished concrete and cover the floor with vinyl composition tile (VCT) until the contractor and Floormaps came up with a stencil application which she named “Tribeca.”



After the Tribeca pattern was successfully stenciled, stain guard was applied and the floor was burnished.

Photos courtesy of Mike Dougherty

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“The Tribeca pattern was thorough enough to camouflage a lot of the defects in the floor,” she says. The company liked the pattern so much it started to use the Tribeca pattern in stores nationwide to differentiate areas in stores such as the grocery and cosmetic areas.

The retailer also started to customize areas in certain locales. One of its stores in Manhattan, for instance, features a stained pattern that depicts a map of the Lower Eastside.



Floormaps designed this unique street map specifically for a Target store in the Lower East Side of Manhattan.

### Right on Target

Knigge-Bruce estimates Floormaps has produced more than 750,000 square feet of stencil with the Tribeca pattern averaging about 20 Target stores per year. The increased demand has naturally required her to increase the size of her operation.

“We couldn’t work out of my garage anymore,” Knigge-Bruce quips. “We now have 14 employees working for us. We have worked hard and we have also been very lucky. It’s truly a blessing.”

The willingness of visionaries like Jones and Knigge-Bruce to try different mediums has opened up a new way contractors can leave their mark with lasting and significant effects. 📱

*Mike Dougherty is the vice president of Concrete Arts of Hudson, Wisconsin, which is a Bomanite franchise partner that installs various architectural concrete applications. He sits on the board of directors for the Bomanite International Society and is a member of American Mensa. Dougherty studied journalism at the University of Minnesota. He can be reached at [mdougherty@concretearts.com](mailto:mdougherty@concretearts.com) or (612) 369-2797.*

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A macro-trend that's popular today involves large and contemporary designs.

Photo courtesy of Trademark Concrete Systems

## Trends in Decorative Concrete

### Large designs gain preference over intricate patterns

by Chris Sullivan

**T**HE first time I delivered “Trends in Decorative Concrete” was at the Concrete Decor Show in Fort Worth, Texas, in February 2014. It was initially created to present a quick snapshot of what was trending in our industry, targeting primarily the design community. At the time, I never anticipated the presentation would grow into the program it is today.

Over the years the presentation has been updated and expanded to include market information from installers, designers and manufacturers from around the world. In 2018, it became the first of its kind American Institute of Architects Continuing Education Accredited member benefit program, offered through the American Society of Concrete Contractors’ Decorative Concrete Council.



Photo courtesy of Sundek, Arlington, Texas

I was honored to present the updated program at the 2019 Concrete Decor Show in Arlington, Texas, in October.

## History of the industry

The presentation starts with a brief history of the decorative industry as it grew from colored concrete, early stamping and knockdown overlays in the '60s and '70s to its current pallet of products and systems. Early pioneers such as Lynne Scofield, Frank Davis, Joe Nasvik and Brad Bowman are introduced highlighting their achievements and contributions to the industry.

Interestingly enough, most of these early pioneers had no idea the impact or magnitude their respective businesses would have, and how 50 years later their legacies would live on in our industry.

## Trends and standards

What is a trend, especially when it comes to the decorative industry? The program touches on how trends in decorative concrete start, where they come from, and how the internet and social media have “flattened the world” in regard to how new ideas “go viral” to become the next hot product, color or finish.

In their most basic form, trends come from quality and creative work being replicated. The time-tested adage, “Imitation is the highest form of flattery,” holds true. This point is really what makes decorative concrete stand apart from other trades.

A contractor pushes the envelope, using a product or system in a new way, or a way it was never intended, and it results in a new finish, color or process. A trend is born.

It's important to remember that trends aren't all encompassing and universal. There are colors, finishes and processes that have been popular for 25 years, and will remain so for as long as decorative concrete is a thing. These are standards, and the industry requires these as a foundation on which everything else is built.

We can't have trends if we don't first have standards.



Combining materials — such as glass, colored aggregates, wood and metal in or around concrete — is a current micro-trend for cast-in-place concrete.

Photo courtesy of The Green Scene Landscaping and Pools

## Macro vs. micro trends

Macro-trends are those concepts that weave themselves through all applications. Current macro-trends in decorative concrete include large contemporary patterns and designs, customization of work and natural finishes.

We can see these concepts in stamped concrete where installers use stamp tools that are 20 years old, but combine multiple patterns, customize colors, and expand banding and edging detail to provide a finished product that is unique and “custom.”

Another macro-trend popular today involves large and contemporary designs. You only need to look at pictures of decorative concrete 10 years ago com-

pared to today to see this firsthand. Tight intricate designs have been replaced by large contemporary layouts. This trend is following other flooring markets and can be seen in tile and terrazzo designs.

Micro-trends are those processes, colors or finishes that are popular within each product segment. Cast-in-place concrete is all about natural finishes through surface exposure or low-gloss sealers and coatings. Combining materials — such as glass, colored aggregates, wood and metal in or around concrete — has become a micro-trend in this market segment. We see the same trend regarding sealers, where penetrating and low-gloss finishes produce a “natural look.”

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Floor by Unique Concrete, photo courtesy of Kingdom Products

Flooring featuring wood plank textures has been popular for about four years now. It will likely remain popular for another few years before it falls out of favor.

Trends aren't forever, and historically three to five years is the length of time a trending finish in decorative concrete remains popular. Good examples of this are wood plank textures. They have been popular for about four years now and, based on market response, the trend is reaching maturity.

By all indications wood plank and wood texture will remain popular for another few years. However, the market is saturated and that usually signals product fatigue and the beginning of the end for a trending process or finish.

### Looking to the future

While no one can predict the future, there are some early indicators of future trends in the decorative industry. One of the biggest involves green building and how products, systems and decorative installations will impact the environment.

We see a push for sustainability, low VOC-emitting materials and reduced environmental impact. An increase in water-based sealers and the recent elimination of methylene chloride in retail paint and coating strippers are good examples.

A case can be made that polished concrete was the first decorative system with a reduced environmental impact. From what we see, it was first of what will be an industry-wide trend in the coming years.

If the last 30 years are any indication, the decorative concrete industry has a bright future ahead with innovation and quality creating new trends in all markets and all corners of the globe. 📱

*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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# Let it Bee

by Stacey Enesey Klemenc

**D**OING museum-quality work doesn't always entail fashioning blank backdrops to show items of interest at their best. Sometimes, as is the case of a pollinator-themed playground at the Smithsonian's National Zoo in Washington, D.C., it involves colorful GFRC carvings that are larger than life.

Created by a team from GameTime of more than 20 in-house designers, welders, concrete carvers and painters who specialize in making engaging play experiences for children, "Me and the Bee" encompasses 4,900 square feet designed to spark curiosity and urge the use of imagination.

Children learn about bees as they buzz around the interactive space complete with lofty flowers, hollow trees, pollen particles and dripping honey. Hands down, though, the biggest draws are the GFRC replicas of a European honeybee and a blue orchard mason bee.

Carved by Carrla Leszczynski, GFRC concrete lead for GameTime, the bees remarkably resemble the real deal, down to the hairs on their legs, which, she adds, were carved with a detail trowel while still wet. "I wasn't waiting around for the concrete to dry," she says with a laugh.



"I tried to stay as close to the concept art as I could," she continues, and had to figure out the best methods to convey the many textures of the bees' body parts. "I mean, there's not a book you can go to that tells you how to make a wing out of concrete."

Leszczynski credits her boss, Kent Walker, who's been involved with the play environment for the past 40 years and is very knowledgeable about the ways of GFRC, with helping her get the textures just right. In addition to

fine-tuning techniques, he's also finessed a special finish coat that has no fibers.

"We use GFRC as the base and get a really good scratch coat that's thick and structural (before applying the topcoat). The finish is all about texture. I did a lot of blocking in that layer to create the depth."

The zoo project ranks as the best work experience she's had anywhere, Leszczynski says. "I just love the fact that my art is displayed in a museum." 🐝

[www.gametime.com](http://www.gametime.com)



Photos courtesy of GameTime

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