

By Jeanne Fields



The bathroom is an intimate room, not a place for cold, hard edges. So why is concrete increasingly used in bathrooms? "Concrete can be sculpted and shaped to work ergonomically with the human body, which is important for a bathroom space. And concrete doesn't rot: it's durable, it's water resistant, and it holds up to mold," says Fu-Tung Cheng, principal, Cheng Design, Berkeley, Calif. Combine concrete's beautiful forms with comfortable utility and concrete becomes an obvious material of choice.

DESIGN

Chris Becker is big on design. Becker, president of Becker Architectural Concrete, South St. Paul, Minn., collaborates with homeowners and designers, who come to him with their own design ideas, to determine the best way to build. Becker uses Auto-Cad and "Sketch Up," software to create renderings that give the client multiple views. "They try on the installation to see how the design will fit,"

says Becker. "The challenge is to thoroughly interview the client to determine what they are looking for." He offers clients four different countertop choices using the branded name Creo Cast Concrete:

- cast-in-place using his own mix design
- Buddy Rhodes's pressed method
- Fu-Tung Cheng's Pro-Formula mix
- his own reverse-cast mix

COUNTERTOPS

Mike McDaniel, an interior designer with Robb and Stuckey, Scottsdale, Ariz., combined Asian and Western influences to contrast raw timber and natural stone with stained and cast concrete. The main countertop was made with the Cheng mix finished in place, right side up, instead of the usual reverse-cast method. This permitted a burnished trowel finish to create the aged appearance the owner desired. The installation was epoxy sealed to protect against

water and the unique Kohler Purist sinks and faucets completed the work.

Becker's center-island porcelain dual-sink bath won the Cheng Design Challenge for the Best Bath Countertop in 2007. "Self-consolidating concrete (SCC) is less pervious to water. It's more dense, casts easily, and when the 'spread' is greater, casting can be bughole free. It's an excellent mix to use for countertops and integral sinks," says Becker, who uses this as the base for his reverse-cast mix. An added bonus for Becker is the breadth of colors he can offer designers, which he says drives his countertop business. Becker finishes his self-consolidating-concrete countertops by diamond polishing at 100-, 800-, and 3000-grit levels and then applying polishing impregnators and wax.

For the Natoma project, a remodeling project in San Francisco, Cheng incorporated wood, concrete, and tile into an earthy color palette to create a gentle

Amplifying the natural attributes of concrete, Cheng's Natoma bath included a sculptural countertop with two integral sinks spanning 12 feet. The polished color-free concrete floor included troweled-in beach glass, turquoise, and mother-of-pearl.

Photo: Matthew Millman Photography



Concrete

The importance of design

Bathrooms

atmosphere. Cheng combined a curved ceiling architecture with a square bath plus integral double cylinder-shaped concrete sinks cast into a rectangular 12-foot-long countertop. The 2-inch-thick countertop was cast-in-place with Cheng's Pro-Formula mix; its two sinks include integral color and fiber reinforcement. Decorative fossils inserted into the form before casting are revealed when demolded. On previous projects, Cheng has buried shells, children's toys, and metal objects in showers and countertops—another way to soften the atmosphere and reflect a client's essence. The integral sinks and countertop are designed to receive a concrete insert that keys into the sink sections. The insert masks a center drain creating the illusion of one continuous large sink. The glassy finish characteristic of Cheng's work is finished with a sealer, then waxed and buffed. An I-beam that holds the three-section countertop together, and runs under the front edge of the counter, is part of the wall-mount system.

FLOORS

Most any decorative concrete floor can be used for bathrooms: stained and colored over-

lays, stencil applications, polished, or stamped. Interestingly, contractors report that homeowners are more concerned about a slippery floor than water and urine stains. Perhaps there is an assumption that the product is capable of withstanding stains so contractors and designers need to provide a dense, less stain-prone, and well-sealed nonslippery floor. For instance, Cheng's Natoma project included a polished floor with troweled in beach glass, turquoise, and mother-of-pearl. It was ground and diamond polished, then sealed with a penetrating sealer. The dense polished surface still reflects the beauty, but the shine is softened and the slipperiness reduced.

Becker's award-winning bath was a remodel with an uneven concrete floor that needed a 3/4-inch elevation change. The design took advantage of the distressed floor and included a bed of natural stone that meandered through the floor and up the shower wall in a recessed pathway. Becker

used self-leveling overlay material to even and lift the floor allowing for the recessed area, and followed with a troweled-on microtopping that was chemically stained with two concentrations of a dark tobacco color. The floor was sawcut into large squares and later grouted and sealed with a water-based epoxy. Six coats of water-based floor wax completed the floor.

Janet Brown with Faux Biz in Auburn, Ala., used a Modello stencil for a bathroom floor on a remodeling project. The existing concrete required extensive crack repair. She used Bella Vernici's Terra Stucco, a granular crack-filler for deep crevices, followed by Serico, a smooth skimcoat overlay. This was followed by an oil-based primer, then Brown troweled on a gray



Left: Becker's award-winning installation used the clean lines of the burnished concrete countertop and a natural rock path through a microtopped concrete floor to incorporate the Asian and Western themes desired by the homeowner. Photo: Architectural Concrete

Above: The repair and restoration of an older bathroom floor was enhanced with a Modello stencil colored with chemical stain. Photo: Janet Brown

Right: "It took many samples to find the perfect color," says Buddy Rhodes about his concrete tile collaboration with Dan Phipps. The two arrived at a pink sand color—a combination of red, yellow, and black iron oxides in white portland cement. Photo: John Sutton Photography

cementitious overlay. The stencil was placed on the dry overlay and the entire floor stained with Bella Vernici's Parchment, Brandy Wine, and Turtle Black. The stencil was removed and the uncovered pattern was stained with Parchment, Palm Green, and a sprinkle of Miracle-Gro to add a blue/green hue to the chemical reaction. "The Bella Vernici water-based stains called 'oxidizers' are user-friendly. The metallic salts are finely crystallized and emulsify in water," says Brown. She finished with a liquid hardener to densify the concrete overlay and a clear Carnauba-based wax. Maintenance for the floor requires only an occasional damp mopping.

SHOWERS AND WALLS

A concrete overlay covered the organic shell-shaped shower designed by Janet Brown's son, Matthew Murphy, at the 2007 World of Concrete. Its curved walls were built in sections using metal stud framing and covered in 1/4-inch flexible sheetrock. The drywall was primed with latex followed by bonding primer and a trowel-applied cementitious overlay. The overlay was stained in Bella Vernici Parchment, Caramel, Coffee Brown, and Turtle Black colors. Afterward the walls were

diamond polished to a 200-grit finish. The texture was made purposefully smoother in some areas with selective grinding. After staining, Brown applied a liquid hardener to densify the concrete surface to complete the earthy finish. The white porcelain commode and sink received a similar decorative treatment. To prepare these surfaces, Brown used an etching product that cured for 48 hours, creating a bondable surface to which the sprayed-on overlay adhered. "The key to spraying the overlay was using retarder to slow down the curing process and prevent the overlay from solidifying in the spray gun," says Brown. After drying for 48 hours, the fixtures were stained using the same colors as the shower walls. The stain was followed with a liquid hardener and a Carnauba-based wax.

Buddy Rhodes worked collaboratively with San Francisco architect Dan Phipps to design a bathroom with concrete tiles. Its soft-edged curved shower, built with concrete board and plywood on a 2x4-foot wood frame, is a comfortable shape for the body. The curve has a return edge that goes to the shower and another to the window. Rhodes created molds and cast the 3/4-inch tiles right side up to accommodate the curved radius;

they have a hand-troweled finish. Phipps and Rhodes worked together to develop the warm-toned tile color, a variation on a sandstone hue. The 24-inch reinforced concrete tiles are adhered with thin set mortar with an acrylic additive. Rhodes's ceramic background has led to the use of concrete that is almost clay-like in consistency. Its low water-cement ratio produces dense high-strength concrete tiles. Rhodes used a water-based acrylic sealer to finish the shower. The same tiles cast flat were used for walls with the curved shapes softening the corners.

ENDLESS OPTIONS

Discussions with homeowners about a bathroom may begin around a concrete countertop but then expand to floors, walls, or showers. Underlying, and sometimes unspoken, are questions about how the material functions and its incorporation into the complete design. Contractors may do beautiful concrete work, but "the ultimate success of any project is how well it fits in composition, form, color, and proportion to the space in which it resides" says Cheng. Important considerations for one of the most important and intimate rooms in the house. ●

