



# Enduring Design

CONCRETE HOUSES ARE GAINING FAVOR ON THE EAST END FOR THEIR DURABILITY, LOW MAINTENANCE, AND AESTHETIC VERSATILITY.

*by Jean Nayar*

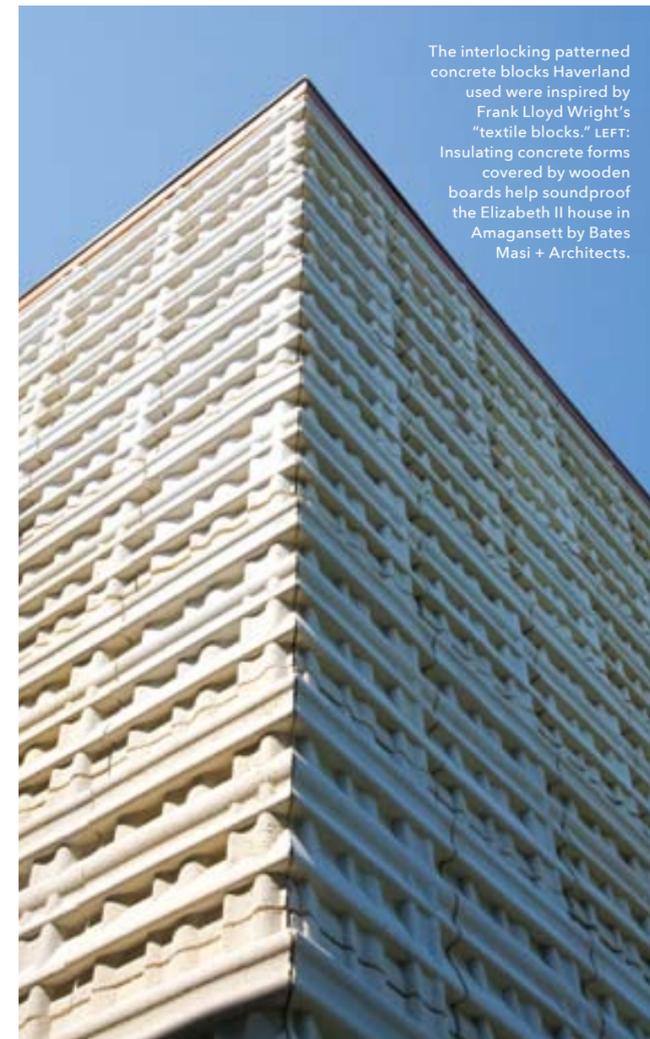
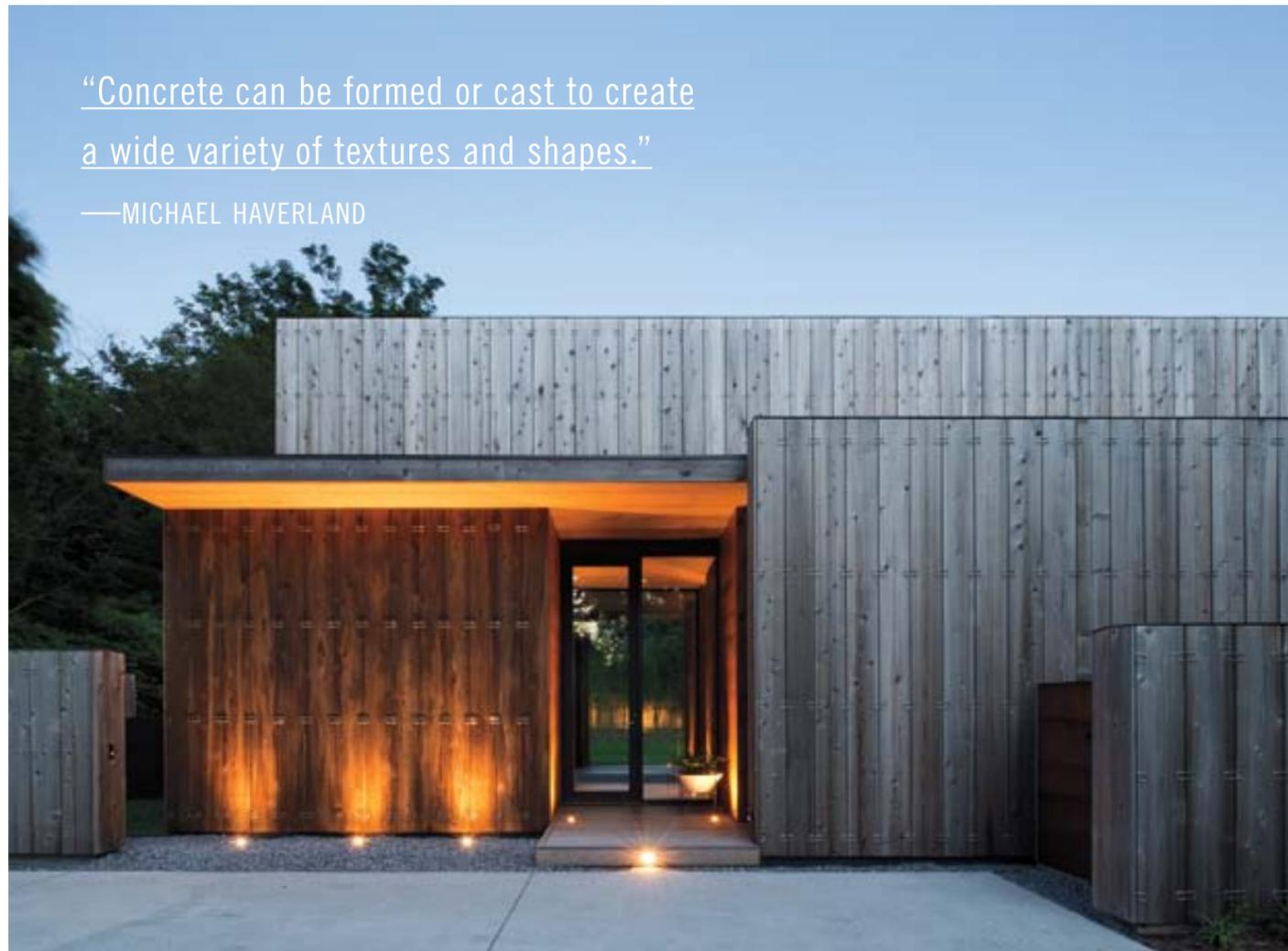
PHOTOGRAPHY BY JANE MESSINGER. OPPOSITE PAGE: PAUL WARCHOL.

For this Hamptons beach house, architects Aamodt Plumb juxtaposed the industrial quality of concrete with polished accents for a look that is raw yet refined. OPPOSITE PAGE: The cast concrete blocks of the East Hampton home by Michael Haverland Architect are made with sand from the site, creating a natural connection to its surroundings.

Mette Aamodt liked the idea of concrete for its authenticity as a material and the structural elegance it afforded.

“Concrete can be formed or cast to create a wide variety of textures and shapes.”

—MICHAEL HAVERLAND



The interlocking patterned concrete blocks Haverland used were inspired by Frank Lloyd Wright's “textile blocks.” LEFT: Insulating concrete forms covered by wooden boards help soundproof the Elizabeth II house in Amagansett by Bates Masi + Architects.

It's not unusual to see concrete houses in Europe. Early modern masters like Le Corbusier, Walter Gropius, and Carlo Scarpa relied on concrete to build some of the most durable and inspired contemporary dwellings in the world. Think the International Style Villa Savoye in Poissy, France, the Bauhaus masters' houses in Dessau, Germany, or the Brutalist Villa Ottolenghi in Verona, Italy, as classic modern examples. Concrete houses are also commonplace in the southern coastal areas of the US and South America, where hurricane winds and humidity make wood-frame structures impractical. But it's rare to see a concrete dwelling in the American Northeast. However, evolving lifestyle preferences and a movement toward modernism have recently yielded a modest crop of concrete homes in the Hamptons—and the benefits of concrete may very well result in growing demand for this type of structure on the East End.

Among concrete's most appealing attributes as a building material is aesthetic versatility. “Concrete can be formed or cast to create a wide variety of textures and shapes,” says architect Michael Haverland, who has offices in New York City and East Hampton. “It can be used as elemental structure and, when done well, expresses its inherent qualities—great strength in compression, weight, and mass. It can also be structural and decorative at the same time.”

A prime embodiment of these qualities is a house Haverland designed in East Hampton for David Steward and Pierre Friedrichs, well-informed patrons of architecture who were inspired by the ornamental relief patterns of interlocking cast-concrete blocks that define Frank Lloyd Wright's Ennis House in Los Angeles. When the couple called on Haverland to design their house on a lot next to the former estate of artist Jackson Pollock, Haverland was teaching at Yale and exploring new fabrication technologies with materials that could be cast from computer-generated foam molds. While he sought inspiration in Frank Lloyd Wright's “textile block” building technique, the architect developed patterns for the exterior that could only be produced by today's technology. The resulting jewel box of a dwelling is encased in an intricately patterned concrete sheath that elevates the overall composition with distinctive detail. “We arrived at these fluid,

dynamic forms with sensual shapes that capture light and shadow differently,” Haverland explains.

Though modern concrete houses are currently in vogue in other parts of the country—California and Texas, for example—Haverland notes that relying on concrete as both structure and surface is hardly new. “Carlo Scarpa, at the Brion-Vega Cemetery outside Venice in the 1970s, used forms made of long narrow boards which left impressions in the concrete and a rich pattern at an appropriate scale,” he says. “At the same time, Paul Rudolph used concrete to create Brutalist forms and experimented with texture and pattern made from casting and bush-hammering to create a seersucker effect to the finish. More recently, Tadao Ando and Donald Judd at Marfa used high-quality finished board forms. And concrete also allows for fluid forms and sculptural buildings like those by Bart Prince in the 1970s and Zaha Hadid today.”

Another of concrete's qualities is its durability. A waterside concrete beach house designed in the Hamptons by the Cambridge, Massachusetts, firm Aamodt/Plumb Architects offers a case in point. “The exterior concrete of the house has been exposed to the elements now for about six years and it looks as good as the day it was finished, and it will continue to do so for the foreseeable future,” says architect Andrew Plumb. “When designed, detailed, and constructed properly, concrete is an extremely durable and low-maintenance material,” he adds. “It will never rot or need replacement or repainting. In the coastal environment, this is especially valuable. Concrete is particularly well suited for resisting corrosive sea air, strong windstorms, wind-driven sand, and rain.”

In fact, the same house endured Hurricane Sandy with nary a dent. And since building codes in the Hamptons have been elevated to match the standards of Miami-Dade County construction, the durability of concrete houses makes them all the more appealing. “It's like the three pigs,

one with a straw house, one with a stick house, and one with a brick house,” says Mette Aamodt, who collaborated with Plumb on the two-story structure.

Aamodt also liked the idea of concrete for its authenticity as a material and the structural elegance it afforded in executing the concept for the home. “The owners have amazing views of the bay on one side and the ocean on the other, but their neighbors on both sides are just 10 to 20 feet away, so we came up with a concept of four stacked rectangular boxes that are solid on the sides to shield them from view from neighbors, yet open onto the views on the wide sides like viewfinders,” explains the architect, who chose to use board-formed poured concrete with rebar reinforcement to create a structure that features the impressions of wood boards with “grain and knots” that hark back to neighboring houses without mimicking them. The architects also contrasted the industrial quality of the concrete with polished accents to create a raw yet refined composition.

A similar need for durability and privacy inspired architect Paul Masi in the design and construction of his own home in Amagansett. “We're in a village with busy

street traffic and noise, but we wanted to preserve the quiet nature we seek out here,” says Masi, a principal with Bates Masi + Architects in Sagaponack. “Durability and sound control were our goals, so a concrete structure was an effective solution for us.” Masi's house is built of insulating concrete forms known in the trade as ICFs, which consist of durable panels of concrete sandwiched between layers of insulation that not only help to soundproof the home but also make it more energy efficient. With this type of building method, the concrete is not visibly expressed inside or out. Instead, it is contained inside the walls, which are clad in sheetrock on the interior and a material of choice outside. In Masi's case, the exterior was finished with wide boards that reference the barns in the area. “We wanted a contextual link to the surroundings, so our aesthetic goal didn't involve exposing the concrete,” explains Masi. “We also chose to use the concrete forms for their energy efficiency—they perform well in hot and cold temperatures, like a thermos,” he adds.

In many respects, concrete is also a sustainable material. “Concrete and stucco—basically cement—have >>

#### BUILT TO LAST

Not all concrete construction is alike. According to architect Andrew Plumb, there are five main types of concrete building techniques. “The cost drivers are material, labor, complexity, and scale,” he says. Here's a look at the options.

**Concrete Block.** Blocks of concrete held together with mortar are the most cost-effective—the skill level required to install this material is low.

**Insulating Concrete Forms.** Uses concrete for structural purposes, sandwiching it between layers of insulation that are then covered with conventional materials inside and out, canceling out some of the weather-resistance benefits.

**Precast and tilt-up panels.** Constructed in a controlled environment and assembled on-site, this can be cost-effective because the required labor expertise is modest and pre-cast panels are made in a factory, getting around the scenario of unpredictable weather delaying on-site fabrication. If a home design is idiosyncratic, however, a premium will be paid for the factory to set up pre-cast panels.

**Glass fiber-reinforced concrete.** Offering flexibility in aesthetics, it is typically fabricated off-site and so has some of the same benefits as pre-cast. But it is generally used as exterior cladding or an interior finish, and so is mounted to another structural element.

**Cast-in-place concrete.** Brings the most aesthetic flexibility and durability benefits, including resistance to termites and mold. This option requires the highest level of expertise and therefore has the highest cost.

PHOTOGRAPHY BY BATES MASI + ARCHITECTS. OPPOSITE PAGE: LAURIE LAMBRECHT



The beach house designed by Aamodt Plumb uses board-formed poured concrete, giving the impression of grain and knots found in natural wood.

“When designed, detailed, and constructed properly, concrete will never rot or need replacement or repainting.”

—ANDREW PLUMB

PHOTOGRAPHY BY PAUL WARCHOL (METTE AAMODT); JANE MESSINGER (MICHAEL HAVERLAND); OPPOSITE PAGE: JANE MESSINGER

a primal connection to the land in the Hamptons since Long Island is basically made of sand,” says Haverland, adding that concrete is composed essentially of sand and cement. “For the house in Springs, we used sand literally from the site to make that connection even more direct and poetic. Plus, the yellow sand in the Hamptons yields warmth to the color of the cast-concrete blocks, and using sand saved having to haul away cut from the excavation, making it more sustainable.” Still, the enormous amount of fossil fuel required to make concrete counteracts some of its sustainable qualities, says Aamodt, who adds that a limited local pool of subcontractors skilled in concrete construction techniques can also add to the time and expense involved in this kind of construction.

Ben Krupinski, the East Hampton contractor who constructed the residence designed by Haverland, recognizes the aesthetic appeal and durability of concrete but sees the high cost of such structures as a drawback. “A lot of wood-frame homes here were built in the 1930s or even the 1700s and they’re still standing,” he says. “I think the choice to use concrete is personal,” he adds. “There may be energy savings, but I’m not sure if the cost is worth it.”

Contractor Nicholas Alimanestianu of Southampton Building Corporation, who has also built a number of concrete houses in the Hamptons, notes that there are several approaches to building with concrete—some more costly and difficult than others. While he concedes that concrete construction can add up to 30 percent to a house’s price tag, he believes its maintenance and durability benefits offer a positive return on the investment. “You can also get insurance deductions for noncombustible construction,” he says. Haverland also contends that, when designed and executed conscientiously, concrete’s long-term benefits outweigh the costs. “Although initial costs might be higher, the life cycle costs are less, due to minimal if any maintenance and longevity, and that inherently makes for a more sustainable product,” he says.

Regardless of the construction method chosen, the benefits of concrete outweigh the challenges to many architects, builders, and homeowners, and the possibilities for its aesthetic expression have yet to be fully tapped. So whether or not the material takes hold as firmly as it has in other parts of the country and the world, it’s intriguing to see a growing collection of future concrete landmarks emerging from the creative spirit of today’s modern masters on the East End. ■



Decorative metal scrollwork screens on the Aamodt Plumb property offer both storm protection and privacy from the neighbors. ABOVE: A view of the Michael Haverland-designed waterfront house at dusk.