

Building

The terms “design” and “modular homes” are rarely uttered in the same sentence. But modular manufacturers say they’re finally trying to upgrade the look of their houses to lure more buyers.

ON SEPT. 30, MOHEGAN SUN, the hotel/casino in Uncasville, Conn., gave away a 2,240-square-foot, two-story modular home, valued at \$175,000, that it had built outside of its entrance as part of a \$500,000 sweepstakes celebrating the resort’s 10th anniversary. In the five weeks leading up to the giveaway, about 500 people per day walked through that home. Its builder—Fall River, Mass.-based East Coast Homes—

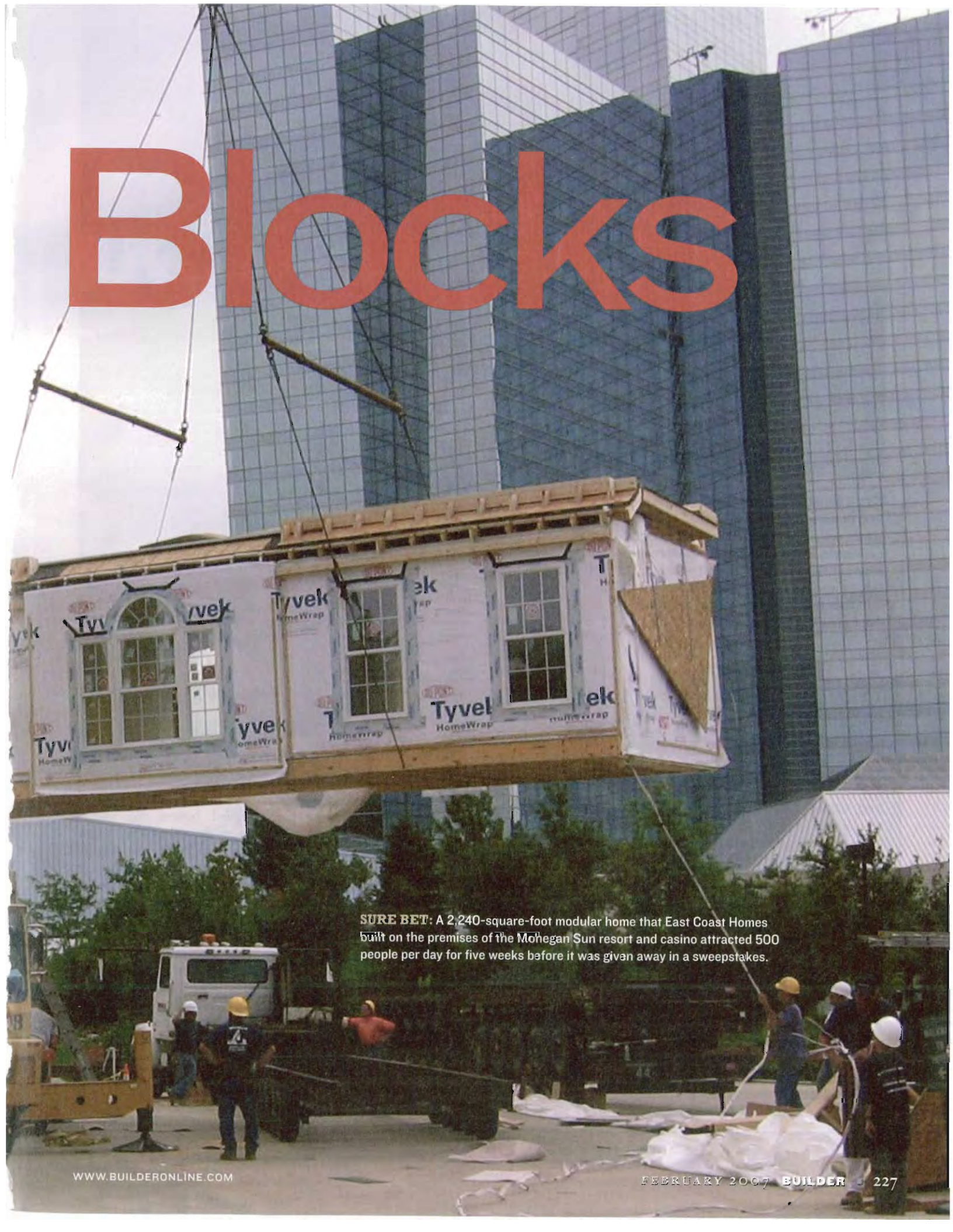
generated more than 150 leads from the event. “The first thing people asked was, ‘This is a modular house?’” recalls Dave Megna, East Coast’s owner. “The second thing they asked was, ‘Why isn’t more modular built?’”

The interest the home stirred isn’t surprising for New England, where “system-built” homes—virtually finished modules produced in factories and transported for

BY JOHN CAULFIELD



Blocks



SURE BET: A 2,240-square-foot modular home that East Coast Homes built on the premises of the Mohegan Sun resort and casino attracted 500 people per day for five weeks before it was given away in a sweepstakes.



WIDE VARIETY: Atlanta-based manufacturer Building Systems Network has 450 unique designs, and its CEO is convinced that customization is the “future” of modular construction. His company, though, has been fighting with the city of Gainesville, Ga., for more than two years over its right to build in that market using homes constructed off site.

IN LIMBO

YEAR	UNITS BUILT
2006	39,000*
2005	43,100
2004	42,700
2003	37,800
2002	35,500

* ESTIMATED

THE LONG HAUL: Modular homes account for around 3 percent of annual new-home starts in the U.S. But manufacturers say that as the contractor pool shrinks, producing homes in factories makes more sense to help meet long-term demand.

SOURCE: MALLAHAN ASSOCIATES

assembly on buyer-owned lots—represent an estimated 17 percent of annual housing starts. But potential buyers in other regions are now starting to ask the same questions about modular, including people in Western states, where this kind of housing has been scarce. “People are screaming for modular homes on the West Coast,” says Bill Garnett, a Bainbridge Island, Wash.-based designer



who specializes in custom modular housing (see “Westward, Ho!” page 229).

Most everyone agrees that a factory environment, where processes are controlled and weather doesn’t intrude, is more conducive to efficient construction than a jobsite and generally produces better-made houses. Yet despite steady growth until last year, modular’s share of new-home starts nationally has been stuck at around 3 percent (see “In Limbo,” above, left). Some of this relates to a distribution and sales network that focuses on certain regions—the Midwest, New England, and the Southeast—where demand is strongest. But the hard truth is that too many people and municipalities still lump modular and “manufactured” (that is, mobile or HUD-code) homes

together and see both as marginal products for marginal buyers, no matter how many design flourishes they sport. For more than two years, the city of Gainesville, Ga., has been trying to block Atlanta-based manufacturer Building Systems Network from completing a four-lot project—which BSN started with a 6,800-square-foot home valued at \$890,000—because its modules aren’t built on site (even though Georgia permits residential construction using homes made outside the state).

Manufacturers become their own worst enemies, say industry observers, by marketing modular and HUD-code homes in retail centers like commodities, and by doing as little as possible to educate buyers or city planners about the substantive benefits of

PHOTOS: COURTESY BUILDING SYSTEMS NETWORK

WESTWARD, HO!

More modular factories come on line in the West to accommodate growing buyer demand.

Until recently, demand for modular homes has come mostly from buyers in the Midwest, New England, and Southeast. But interest is increasing west of the Rockies, as is access to the product. Seattle-based design consultant Bill Garnett says he's been working with Stratton, Neb.-based modular manufacturer Timber Creek Homes, which as of late October had a \$29 million backlog and has had success producing high-end custom homes for buyers throughout California. Garnett is also maneuvering to soon bring product made by East Coast factories to the West. Meanwhile, Atlanta-based manufacturer Building Systems Network (BSN) has been negotiating with transporter CSX to ship its products west by rail, says BSN CEO Grant Smereczynsky.

Indigenous production is emerging as well. During a two-week period in 2005, more than 10,000 visitors walked through Breezhouse, a stylish, 1,830-square-foot modular home that *Sunset* magazine commissioned local architect Michelle Kaufmann to build on *Sunset's* campus in Menlo Park, Calif. Last fall, Kaufmann's company, Michelle Kaufmann Designs, opened its own, 25,000-square-foot manufacturing facility, called mkConstructs, in Lakewood, Wash. From there, it intends to build 48 of Kaufmann's signature sustainable, high-design custom homes annually for buyers in

Washington, California, Oregon, and Hawaii.

Late last year, the year-old prefab home division of design/build firm Marmol Radziner and Associates shipped the first modular home from its factory in Los Angeles to a buyer in Moab, Utah. Other homes have since been shipped to Las Vegas and Northern California, and Leo Marmol, a principal with the company, told *BUILDER* in October that it had at least 20 other customers lined up. "Until recently, the history of modular has been about price. Now, there's more interest in quality design," says Marmol, whose company is reproducing its 2,000-square-foot prototype at a cost of \$230 to \$280 per square foot.

And this month, Bellingham, Wash.-based Cabochon Construction & Development will open a \$12 million, 132,000-square-foot modular plant in Burlington, Wash., called Transform, which is fully automated and capable of producing nearly 2,000 homes annually with fewer than 50 employees. "We strongly believe this method of construction is the future and are taking action to ensure we are at the forefront," says Transform's president, Steve Benner. "System-built construction also provides a tremendous opportunity for us to be more judicious with our natural resources. While many modular builders are doing as little as possible to obtain 'green' certifications, our approach is just the opposite."



REGIONAL BREAKOUT: Designers are leading the charge to bring modular homes to the West Coast. Activists include Garnett Design Group, which is consulting with several manufacturers, and Michelle Kaufmann Designs, which produces its signature custom homes (above) out of its own manufacturing plant in Washington state.

modular construction. A design-resistant mentality that still pervades certain quarters of this industry also keeps buyers at arm's length from modular houses, say designers and even manufacturers of basic modular homes. "If the design is inferior, that's a lightning rod," says Kevin Flaherty, vice president of sales and marketing for Genesis Homes, a division that Auburn Hills, Mich.-based manufacturer Champion Enterprises started in 2000. Genesis Homes markets the company's modular homes, which accounted for 30 percent of Champion's production last year (see "Back to School," page 232).

"More time is spent designing a McDorinald's hamburger than a 3,000-square-foot modular house," says Wilton, Conn.-based architect Douglas Cutler, who began posting his modular home plans online last summer. "It's a 'monkey see, monkey do' industry, and factories view design as a loss leader. They're not interested in what I do."

That might be true; Garnett, also, sees a "moribund" modular industry. Yet, he and other designers and architects find themselves in demand by manufacturers who are seeking fresh design ideas and are opening new avenues for creative talent, such as Hans Roegel, a New York-based architect who's been helping Middlebury, Ind.-based Pleasant Street Homes rethink its designs. "That modular homes can be standardized means that it's suddenly feasible for an

"It's a 'monkey see, monkey do' industry, and factories view design as a loss leader. They're not interested in what I do."—Douglas Cutler, architect, Wilton, Conn.

architect to design an affordable working-class home," says Roegel. John Carricarte, a former custom home designer in Colorado, entered the modular manufacturing industry three years ago with Patriot Homes and is now director of design and business development for Admiration Builders, another Middlebury, Ind., company, where he strives to come up with modular designs "that appeal more to builders and developers," with better floor plans and site preparation.

Nationally renowned designer William E. Poole is making his first foray into modular design through a licensing agreement, announced last month, (see page 230)



LUXURIOUS LOOK: Because it didn't evolve from the manufactured home sector, as some other modular builders have, HandCrafted Homes has always sold to a more discerning customer base. It will now try to expand that base by developing a line of luxury modular homes branded under the name of designer William E. Poole.



with Henderson, N.C.-based HandCrafted Homes. Poole is developing a branded line of 10 luxury modular home models exclusively for HandCrafted, which Poole says he chose as a partner—over other, larger manufacturers that had approached him over the past five years—because he felt it would be more “open” to producing the kinds of stylish houses that are his signature.

LABOR-SAVING CONSTRUCTION

Bill Murray, HandCrafted's general manager, says that only 10 to 15 of the 85 builders his company uses to install its products in the field have the skills needed to execute Poole's design specifications. On the other hand, Poole echoes other builders, manufacturers, and designers when he states that the housing industry must embrace modular construction to

meet buyer demand at a time when the labor pool of contractors and craftspeople is shrinking.

Labor raises tough quality-control issues for modular manufacturers. Thayer Long, executive director of the National Modular Housing Council (NMHC), in Arlington, Va., calls field installation the industry's “Achilles' heel” and adds that the absence of large builders and contractors involved in modular construction could stall the industry's growth.

Most manufacturers outsource the assembly of the majority of their modules in the field to small builders. But their choices are limited, as the vast majority of contractors avoid modular construction altogether, either because they don't see the demand or they fear the margins on the finished product would be too meager. Ironically, contractors that have made the

leap into modular say they are realizing significant time and cost savings and are selling into a sustainable market.

Louis Tusino has built modular homes for 35 years. His company, Avis Modular Homes in Douglas, Mass., is one of the few contractors that “can do the whole thing,” he says. It has its own crane (for lifting modules onto foundations), has 60 installers on its payroll, and does foundations and septic. Avis produces 100-plus homes per year and also builds modular additions and panelized garages. “We're a service business, and when people ask if we're open, I say ‘Call Home Depot. If they're open, we're open.’”

The first modular home East Coast Homes' Megna built in the 1980s—which he bought from a local dealer—he and four subs put together in a day and completed in a week. Now, *(see page 232)*

PHOTOS: COURTESY HANDCRAFTED HOMES

BACK TO SCHOOL

Champion Homes' Genesis division gets design lessons from Notre Dame students.

When Champion Enterprises, the Auburn Hills, Mich., manufacturer, acquired New Era Building Systems in July 2005, it wasn't just adding a company that would more than double its share, to 25 percent, of the modular housing market. New Era had a reputation for producing well-designed homes; one of its affiliates, Carolina Building Solutions, built the most recent *dwelling* house, for example. And design had been a "missing component" in Champion's product mix, says Kevin Flaherty, vice president of marketing for Champion's Genesis Homes division, through which the company markets modular houses.

Genesis' modular homes include basic 1,600- to 1,800-square-foot ranches and 1,800- to 2,200-square-foot split-levels. Flaherty says that each of Champion's 26 factories that makes modular product has 20 to 25 "footprints," with three or four exteriors per building. Those plans have been getting the once-over from graduate students at the University of Notre Dame's Center for Building Communities, which is providing design solutions for several urban redevelopment projects.

One of those projects, which Champion will bid on, says Flaherty, is in Elkhart, Ind., and involves the redevelopment of 12 buildings. It includes several houses and some new construction on vacant lots that will include a hybrid incorporating modular components, according to David Young, executive director of Elkhart Housing Partnership, a nonprofit organization that works with the city. Young says the financing could be in place by this summer and that construction could begin in the fall.

The city is considering a proposal that the

Center's students presented on Dec. 3 calling for a multiple-site single-family community of detached homes that Champion would make, and a larger, mixed-used project (six stories or higher) that would use Champion's steel-construction product.

Ron Sakal, a visiting associate professor of architecture and design at Notre Dame, whom the university brought in to help give its school of architecture more of a national presence, says that after meeting with Flaherty and Champion's

senior-level management, he could tell that Champion was looking to make changes in its homes' designs. His students toured Champion's factory in Topeka, Ind., and came up with at least two alternative designs for every floor plan Genesis offers. The relationship could have positive business implications for Champion, too. This semester, students are designing a redevelopment project in Conway, Ark., and next year, they'll work on a project in Los Angeles' fashion district and a loft project in Benton Harbor, Mich.



IT'S ACADEMIC: These renderings depict a redevelopment project in Elkhart, Ind., that Notre Dame students have become involved with. The students have proposed that modular design and construction be incorporated into the project.

his company builds 50 to 60 homes a year and generates around \$5.5 million in sales. "When I did stick-built, I had a hard time controlling my expenses for materials and labor. But I've been dealing with Excel [Excel Homes, his main supplier] for 12 years, and when they give you a price, we can hold that for six months because we know it's not going to change."

David Kelly, who owns Plantation Homes in Murrells Inlet, S.C., has built modular homes for a dozen years and signed on with HandCrafted last summer. He corroborates manufacturers'

claims that modular homes cost less to build in the field when he states that a high-end custom modular home runs between \$100 and \$130 per square foot to complete, versus \$160 to \$180 per square foot for a comparable stick-built model.

FILLING THE MARKETING VOID

Convincing more builders and contractors to jump into modular construction might be easier if manufacturers could expand their customer bases. An important component in that effort is marketing, which, to this point, manufacturers

have conducted mainly through their sales offices (Palm Harbor Homes, for example, has 103 retail centers) or have left to their builder networks. Manufacturers such as Champion and Ritz-Craft Corp. have developed advertising and training programs to help their builders market their products. But some question whether that's enough to entice skeptical or unaware buyers.

Gary Ames, director of marketing for Mifflinburg, Pa.-based Ritz-Craft, thinks the industry needs to promote the benefits of modular (see page 234)

housing through an aggressive marketing campaign similar to the wildly successful "Got Milk?" ads that dairy farmers run on behalf of their products. But the various trade associations that represent factions of the industry have trouble speaking with one voice.

So some companies are taking matters into their own hands. This year, Addison, Texas-based Palm Harbor Homes is launching the industry's first national TV advertising campaign to support its modular product, which, according to CEO Larry Keener, accounted for 30 percent of the company's 8,000-unit sales and 40 percent of its dollar volume in 2006. "That compares to zero and zero a few years ago," says Keener, who projects that half of

"I've been in this business nine years, and we're not running into the stigma that's anywhere near what it was."—Ed Langley, CEO, Excel Homes, Harrisburg, Pa.

Palm Harbor's production will be modular within two years.

No one can say for sure just how large the market for modular homes might be. Steve Snyder, executive director of the Modular Building Systems Association, in Harrisburg, Pa., says his industry lacks reliable market data. But Fred Hallahan, whose Baltimore-based Hallahan Associates is this sector's recognized authority on modular production, says there are "lots of indications of increased market momentum." Hallahan—who was once a marketing executive with Ryland Group—says one sign that the industry is stepping up is its more professional management. He points, by way of example, to Ed Langley, CEO of Harrisburg, Pa.-based Excel Homes, which made the house Mohegan Sun gave away. Langley has an M.B.A. from Harvard, and his background includes stints with insulation maker Johns Manville and a California-based maker of scientific instruments.

REACHING OUT: Excel Homes, which markets modular houses under its own name as well as under its Avis brand, is a design vanguard among manufacturers. Before it introduced its Generation series, the company looked for ideas by visiting custom and production builder jobsites, combing shelter magazines, and talking with architects.

Recently, Excel introduced its Generation design series, whose specs emerged from visits to production and custom builders' jobsites, surveys of shelter books, and discussions with architects. "I've been in this business nine years, and we're not running into the stigma that's anywhere near what it was," says Langley.

A BROADER AGENDA

Devising more attractively designed products corresponds, for some manufacturers, with their move toward a build-to-order business model. "The industry has to figure out how to mass-produce and market customizable homes," says the NMHC's Long. Grant Smereczynsky, CEO of Building Systems Network, which offers 450

unique designs and is one of Garnett's clients, calls customization "the future of this industry." And Murray of HandCrafted Homes, whose sales rose 20 percent in 2006, says that the "big change" for his company in recent years has been "our willingness to meet buyers' demands through customization" in such areas as roof design and module width. "We want customers to tell us what they want to buy and we'll build it."

Design flexibility is also becoming important to modular manufacturers that are venturing into multifamily construction, which many see as their best opportunity for growth. "As modular has gotten a foothold into urban redevelopment, oftentimes there needs to be an architect involved," explains John Guequierre, president of Pleasant Street Homes, which has manufactured houses that sold from \$40,000 to \$10 million. "And as we develop the ability to get out of the one-story rectangle, we can get into just about anything."

Keener sees "enormous opportunity" for his company and the modular industry as a whole to expand into multifamily. Transform, a new manufacturer in Burlington, Wash., opened a plant twice the size it originally intended so that it would have the flexibility to make a wider range of product. "We're focusing on multifamily because the variations [from unit to unit] are so much less complicated," says Transform's president, Steve Benner.

Garnett has been working with a Los Angeles-based developer on a modular multifamily project in Palm Desert, Calif., called Desert Rose, whose 191 units will sell from \$450,000 to \$650,000. And Kelly of Plantation Homes says his company is already building mid-rise modular projects, three stories high, which he says are more economical to construct than modular single-family homes. "It's like stacking a jigsaw puzzle." ■



COURTESY EXCEL HOMES