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residential lighting / southern trends / rhode island cottage / digital imaging / susan maxman in arizona

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Circle no. 92
Even with that entrance,
but then you realize...
The house had been on the market for over a year. Sure, the leaded glass doors and columns wowed all who entered. How could they not? The columns with their Corinthian capitals. The leaded glass doors crowned by a basket-handle arch. But they weren't enough to close the deal.

Then, you redesigned the kitchen. Using only Jenn-Air appliances. And the house sold to the next couple who saw it.

It all proves what the award-winning design of a Jenn-Air kitchen can do. It's the pillar that people look for in a beautiful home.

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But easy-care is only part of what we've heard. You've also told us you want technology that assures easy installations, superior finished results and exceptional long-term quality.

So we've turned those ideas into products such as:

Charter Oak™ reinforced premium vinyl siding,
the only one-piece reinforced vinyl siding on the market. Our exclusive TriBeam™ technology fuses extra support to a premium thickness panel. The result is superior wall-straightening rigidity... fast, easy installations... and outstanding finished quality. That's why it's one of the fastest growing products on the market. It's the best reinforced vinyl siding you can find.

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TriBeam one-piece reinforcement provides exceptional strength and rigidity for the toughest soffit installations. Unlike ordinary vinyl soffit, it doesn't sag or cup. It goes up fast, and the quality lasts. It's a market leader too.

Exclusive one-piece TriBeam™ panel reinforcement makes Charter Oak the strongest, stiffest and easiest-to-use vinyl siding and soffit on the market.
Now Alside innovation gives you another outstanding product...

An advanced design produces the realistic look of individual 4 1/2" "boards" you get only with CenterLock.

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Superior finished quality — the strength to stay locked tight, even in winds exceeding 150 mph.

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One contractor called it "the best locking siding — and the best lapping siding — on the market."

And that's exactly what you told us you wanted.

CenterLock's exclusive double-lock design produces greater panel rigidity and unsurpassed locking power.

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by boyce thompson

For 10 of the last 12 years, I lived in the kind of ideal place that the planners of traditional neighborhood developments (TNDs) strive to create. My wife and I bought our modest bungalow in Takoma Park, Md., partly because of its expansive front porch and beautiful setting. When the dogwoods and azaleas bloomed, we could sit on the swing and watch neighbors walk by. Conversations often ensued. Dinner plans were made.

abundant diversity

Talk about a community with different housing styles. Fully loaded Victorians, built in the last century, still stand, beautifully restored. Bungalows arrived in the 1920s, many of them by train from Sears. Then, in fits and starts over the years, a parade of assorted infill houses marched in: family-friendly splits, understated ranches, solar behemoths, and most recently, Victorian knock-offs.

Setbacks vary, to say the least. So do lot sizes. Carriage homes spring up like volunteer trees. The big homes have garages; the rest make do with parking aprons. The widths of streets vary from wide, tree-lined avenues to one-car-at-a-time “alleys.”

The beauty of Takoma Park lies in its diversity, both in housing style and people. Our street was a demographically melting pot—elderly people who had lived in their homes for 40 years, singles, dual professionals who would restore the historic houses, and first-time buyers with young children. We had block parties, murder mystery parties, and birthday parties.

Takoma Park was the ideal place to raise small children. Both our boys were born there. We could push a stroller to any one of three tot lots, some with tire swings, some without. We could also stroll “downtown” to a small commercial district that boasted a convenience shop, book store, drug store, pizza place, and video store. On Sundays, they turned main street into a farmer’s market. We always ran into people we knew.

how can you create something from scratch that takes decades of misadventure to cultivate?

New pattern-book homes in TNDs almost seem too perfect. And the land plans—with inconvenient parking and postage-stamp backyards—are sometimes less than desirable. These weren’t exactly endearing features of Takoma Park; you only put up with them because you enjoyed living there.

We left Takoma Park two years ago because we desperately wanted a yard, especially a back yard. We needed a place for two active kids to play. We needed a bigger house with a family room, where our children could vent their energy during the winter. We couldn’t afford any of the historic mansions in Takoma Park, so we bought a big split-level in a characterless suburb of Bethesda, Md.

Thankfully, newer TNDs—we feature several in an article beginning on page 60—mix densities to meet demands for larger lots, backyards, and garages. Yet they still manage to deliver the community character that people crave.

Even so, there’s no substitute for the real thing.
residential architect announces a
design competition to benefit Habitat for Humanity, a nonprofit organization that builds simple, decent, and affordable homes with families in need.

**Our goal:** To shine a national spotlight on design excellence in affordable housing.

**Your challenge:** To design a livable, buildable, affordable house for a Habitat family in Yonkers, N.Y.

**The rewards:** Bob Vila and a team of volunteers will build the winning design on national TV this fall. The winner also will receive feature coverage in *residential architect* and a grand prize of $5,000. Citations of merit ($500 each) will be awarded at the judges’ discretion.

**Entry deadline:** August 20, 1998


**For program details, mail or fax this coupon to:**
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SOMETIMES, THE BEST THING about the house isn't the house at all—it's what's right outside: the sunshine, the trees, the birds, the garden. Together, they create the sense of a private sanctuary from the busy world, which is a powerful motivator for a home buyer. Patio doors play a key role in establishing that atmosphere, allowing you to claim the beauty of the outdoors and use it as a design element in your home. What's more, almost unprecedented innovation by the patio door industry has resulted in phenomenal long-term performance that will satisfy today's well-informed, demanding homeowner. That's why builders and remodelers can recommend and use patio doors, and know that their customers will be satisfied.

The new doors do much more than let in light and let out the dog. They swing. They glide. They're one-, two-, three-, or four-panels. They're available in aluminum, vinyl, steel, wood or wood that's clad with aluminum. They come ready to paint, or in a stunning range of carefully selected clad colors. They have transoms, they have sidelights. They have grilles, muntins, divided lights, or nothing at all. They're extra-tall, they're extra-wide. They say "traditional." Or they say "hip." Or they say "original." In short, they're whatever you—and your customer—want them to be.

The new doors fit perfectly and slide effortlessly for years. The better doors glide on long-wearing steel ball bearing rollers in heavy-duty housing. Swinging doors now have heavy-duty hinges. The polyvinyl versions of both sliding and swinging doors have steel or aluminum inserts in the rails; the aluminum and wood versions are reinforced at the corners and joints. These changes make the doors strong and stable, which is why, years later, they open and close just the way they did on the first day. Leading patio door manufacturers have successfully addressed old concerns about energy efficiency. Many patio door frames are now either wood, aluminum clad wood, or vinyl, all of which insulate better than yesterday's patio doors. Insulating glass and high-performance weatherstripping finish the job by keeping hot and cold air where each belongs.

So go ahead and let your homeowner fall in love with the romance of patio doors. Some of the very best this industry has to offer are from Caradco®, Norco®, Pozzi®, Summit®, and Wenco®. No matter what your budget, no matter what your style, one of these companies has the patio door that will transform that house.

For more information on patio doors, turn to page 27. We've also included two detachable Quick Tips cards—one for you and one for your customer—with useful tips on selecting and installing patio doors.
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tour-ism

Tourism

Here's a way to market your firm's services: bring 4,000 prospective clients through one of your houses. That's the number of people who took the Austin (Texas) AIA housing tour during two days last October. The self-guided tour featured the work of 12 chapter members and netted Austin AIA just under $30,000. Ticket prices ranged from $15 for the full tour to $3 for any single house.

To select houses for the tour, the chapter sends out a call for entries to its members. A preview committee visits every house submitted and then picks the final roster. “Our biggest problem has been houses that are still under construction [on the day of the tour],” says the chapter’s executive director, Sally Fly. “So we’ve changed the rules to require that houses be finished at the time they are submitted.” And it’s getting harder to find owners who are willing to open their homes for the tour, Fly says. Participating owners receive a certificate and an invitation to a post-tour party.

Sponsors include manufacturers and suppliers whose products are represented on the tour. The chapter has eschewed major cosponsors, however, in an attempt to keep the program goal pure. “We want to promote the message that architecture is for everyone, whether you’re spending $60 a foot or $350 a foot,” Fly says.—Susan Bradford Barror

san antonio style

San Antonio AIA joined the tour business last fall with a seven-house itinerary that drew 500 people. The chapter patterned its tour program after Austin's, but added a kickoff lecture by TV personality Steve Thomas of “This Old House.”

Michael G. Imber, AIA, had two houses on the San Antonio tour. “The benefit went beyond generating business,” he says. “It let the public see what we as architects do, as opposed to residential designers.”

One of the Imber houses was this...
4,000-square-foot residence for a young family. It occupies one-third acre at the end of a newly developed street. The clients requested a home with indigenous roots, expressed in an urban vocabulary compatible with nearby commercial structures. Imber chose native limestone for the exterior, with an upper level of plaster colored by local sand. A tower caps the house, affording views from downtown San Antonio all the way to the Hill Country.—S.B.B.

home sweet office

Home offices aren’t just a fad—they’re a necessity for more and more American families. Consider these findings from a 1997 U.S. Department of Labor survey:

- More than 21 million people do some work at home as part of their primary job. That’s nearly 20% of the working population.
- About six in 10 use a computer for the work they do at home.
- Nearly three-fourths of people who work at home are in married-couple households. The work-at-home rate is the same for couples with and without children.
- More than 4.1 million self-employed persons have home-based businesses.

The message for architects: Those showpiece studies right off the foyer won’t cut it anymore. Assess clients’ home office needs, then deliver a workhorse office space. For more on work-at-home trends, contact the U.S. Department of Labor’s Bureau of Labor Statistics at 202.606.6378 or http://www.stats.bls.gov.—S.B.B.

a different light

Incandescent light has long been the favorite for general residential lighting. But a competitor may be waiting in the wings. It’s metal halide, a lighting technology now in industrial and commercial use.

Advanced Lighting Technologies, a major manufacturer of metal halide lighting, is sponsoring a 5,297-square-foot demonstration house lit exclusively with metal halide. Called the Microsun Concept Home, the house was designed by the Sater Group and is being built by Hunt Construction in Bonita Springs, Fla. Experts from the Lighting Research Center at Rensselaer Polytechnic Institute served as lighting consultants.

The idea of lighting an entire house with metal halide is still a futuristic one. Its pure white light is difficult to dim. And the initial investment, about $29 for a 68-watt lamp, isn’t easy for consumers to warm up to. But a metal halide lamp lasts 13 times longer than an incandescent one, and it costs less to run. It is compact and partners well with fiber-optic technology.

For more information on the Concept Home or metal halide lighting, call Advanced Lighting Technologies at 732.438.1043. For other residential lighting options, see page 68.—Meghan Drueding
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Of course, people still like good service and fast delivery. And now, we combine our old-fashioned Midwestern helpfulness with the latest in estimating programs, satellite tracking, www-dot-coms and the like.

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This 48" twin casement window is just one of the 144,000 choices we offer. For a free brochure, call 1-800-238-1866, ext. RA1 or visit www.caradco.com
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So if you want to give your clients the kind of choice they expect these days, give us a call.

We’ll help you give them more than they can imagine.
esprit de tours

Every couple of years, Bill Kreager, AIA, takes his residential design team on a road trip—to look at housing, of course. “It’s a team-building thing,” says Kreager, who’s a managing principal with Mithun Partners, a 115-person multidisciplinary firm based in Seattle. “And it’s educational, too.”

In March, his team of 20 drove to Vancouver, British Columbia, for a two-day tour of high-density infill projects. “We were looking for ideas we could translate to the Seattle market,” Kreager says. Suggestions for the itinerary came from the firm’s Vancouver-based clients and from former Mithun staff now working in Vancouver.

Kreager capped the Friday–Saturday tour with a party to which spouses were invited. He views the expense as an investment. “I want to keep the good people excited about doing housing,” he says. Next stop: Portland, Ore.—S.B.B.

windows deconstructed

J im Estes likes to take windows apart—and build views with them. For a custom house he designed near the Rhode Island coast, Estes pulled off the frames that came with the windows he spec’ed, then mitered them together to create a corner view. (For more on this house, see page 86.)

—S.B.B.

ladies and gentlemen —the archies!

We’re not talking about the 1970s bubblegum group here. The Archies is a new award that recognizes the best residential architect World Wide Web sites. Established by this magazine’s Web-based cousin, residential architect Online, the Archies recognize excellence in interface, content, navigation, interactivity, and links.

residential architect Online will feature Archies winners via a hotlink from its Web site. To see who’s won the latest Archie—and nominate your own site—point your browser to http://www.residentialarchitect.com/websites/1998/archies/hotlinks. Questions? E-mail residential architect Online’s John Butterfield at jbutterf@builder.hw.net.—John Butterfield
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<tr>
<td>Matching Transoms</td>
<td>●</td>
<td>●</td>
<td></td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Matching Sidelites</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Standard Glass</td>
<td>Insulated</td>
<td>Insulated</td>
<td>Insulated</td>
<td>Insulated</td>
<td>Insulated</td>
</tr>
<tr>
<td>Divided Lite Options</td>
<td>SDL: Wood Full Surround; Airspace grilles</td>
<td>SDL: Wood Full Surround; Airspace grilles</td>
<td>TDL: Thermal Bar DL: Wood Full Surround; Airspace grilles</td>
<td>Internal muntins</td>
<td>SDL: Wood Full Surround; Airspace grilles</td>
</tr>
</tbody>
</table>

Please see reader service card to request additional information on these brands.
low impact

C
owart Group Architects' design for a retired couple in Sheldon, S.C., won a 1997 sustainable design award from AIA Georgia. The 3,883-square-foot house is located in Bray's Island Plantation, a planned community that seeks to protect native topography and vegetation by limiting building sites and leaving the remainder of the land undisturbed as common area.

The house rests on a masonry pier foundation designed for minimal disruption of native vegetation. The raised foundation also allows for good airflow under the house—an important consideration in coastal South Carolina's moist climate. Recycled materials—cypress, granite pavers, and brick—bring the sustainable theme indoors.

One of the clients uses a wheelchair, so accessibility was a driving force in the design. Cowart Group's program inserts a single-story structure among the site's many old oaks by means of a one-room-deep plan that allows cross ventilation and multidirectional views. Porches, decks, and a ramp to an observation platform provide direct, wheelchair-accessible links to adjacent marshland.—S.B.B.

postcard from virginia

hey gathered on the hallowed soil of Thomas Jefferson's campus in Charlottesville, Va., to wax eloquent on form and meaning in American residential architecture: renegade Donald MacDonald, FAIA, and regionalist David Lake, FAIA. Classicist Hugh Newell Jacobsen, FAIA, and tree-lover Jim Cutler, FAIA. Versatile Barry Berkus, AIA, and the erudite Kenneth Frampton. The event was the Virginia Design Forum on The American House, sponsored by the Virginia Society of the AIA.

Each speaker had an hour to present his view of residential design through his own work. Sadly, time constraints prevented the panelists—and the audience—from engaging in any sort of give-and-take about the house and its role in American society. Thus Jacobsen's antiseptic white manses, posed upon their manicured lawns, stood in mute contrast to MacDonald's huts for the homeless and Cutler's self-effacing studies in wood, glass, and stone. Their very forms reflect their creators' vision of house as home—albeit for widely divergent clientele.

Several speakers made pokes and jabs at the New Urbanism. But there was no meaningful debate about architects' responsibility to consider the houses they design within the broader context of community—perhaps because so much significant work occupies idyllic patches of ground far from the madding crowd. The exceptions were Berkus and MacDonald, who throughout their careers have tackled the tough issue of place-making for average Americans.—S.B.B.

Quotable moments from the Virginia Design Forum, March 27-28, 1998:

"if i were to start my life over again, i would come back as an architect: an architect who does housing."—barry berkus

"classicism is dead."—jim cutler

"i like my houses to look like houses—not pickle factories."—hugh newell jacobsen
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Circle no. 88
reader survey: 20th century giants

who are the three greatest residential architects of the 20th century?

1. Architect’s name: ____________________________
   ____________________________
   ____________________________

2. Architect’s name: ____________________________
   ____________________________
   ____________________________

3. Architect’s name: ____________________________
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   ____________________________

1. Impact on 20th century house design:
   ____________________________
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2. Impact on 20th century house design:
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   ____________________________

3. Impact on 20th century house design:
   ____________________________
   ____________________________
   ____________________________

1. Most influential project and why:
   ____________________________
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   ____________________________

2. Most influential project and why:
   ____________________________
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3. Most influential project and why:
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who are the 21st century’s rising stars in residential design?

1. Architect’s name: ____________________________
   ____________________________
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2. Architect’s name: ____________________________
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3. Architect’s name: ____________________________
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1. Why?
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2. Why?
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3. Why?
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The results of this survey will be published in a future issue of residential architect.

Mail or fax this page to Susan Bradford Barror, residential architect, One Thomas Circle, N.W., Suite 600, Washington, D.C. 20005. (Fax: 202.833.9278)
WARRANTY:
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AND TO THINK OTHER WINDOW MANUFACTURERS SAID...

Architect Richard Smith grew up in Montana's Flathead River valley, exploring its forests, paddling its lakes and streams and marveling at the abundance and variety of its wildlife. So when he was asked to design a home perched above the waters of Flathead Lake, his inspiration was the majestic bird that makes its home in the same idyllic setting: the osprey.

Since the windows would be the key element in creating the look of a bird in flight, Richard spoke with all of the top manufacturers. More than one claimed they were impossible to build. Others were eliminated from consideration because their solutions compromised the design. Still others, because they couldn't provide the low maintenance finish the owner requested. Only one company rose to the challenge. Marvin Windows & Doors.

True to Richard's vision, yet mindful of builder Len Ford's timetable, Marvin's architectural department began designing the windows and creating the necessary production specifications. But a change in plans became necessary when the owner brought up his concerns about the frequent high winds coming off the lake. So Richard designed a special steel framework for the window openings and Marvin produced 24 direct glazed units with custom radii. Clad in the company's exclusive extruded aluminum, the windows conform to A.A.M.A. 605.2-92 standards;
would never fly.

Despite their unusual, non-standard configuration, another 63 Marvin windows and doors in various shapes and sizes were also installed in this extraordinary home.

In the end, Richard Smith and Len Ford were as impressed with the process as they were with the product. And today, "the osprey house" is a required part of every boat tour of Flathead Lake.

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If you need help getting your ideas off the ground, contact the company you know will never let you down. Call Marvin Windows & Doors at 1-800-346-5128 (1-800-263-6161 in Canada). Or mail the coupon for a free copy of our brochure.
You know, I'm a traditional and conservative guy. But after traveling the traditional road in architecture for a while—and being dissatisfied—I began looking for an alternative. My problem was that I enjoyed residential design. But as I considered the usual avenues to custom residential work, I realized that they were slow-growing and time-intensive. I also was haunted by a statement a professor made my freshman year in college: "If you're planning on designing homes for a living, don't count on it being a very good living." Not wanting that statement to become true, I decided to set my sights a little wider.

the stock market
It was the late 1970s. Some stunning custom homes were being built. But I was more struck by what was being built for the average family. It seemed clear that the predesigned (stock) plan business could use the influence of quality architectural design. So I got busy.

In the stock plan business, we design for a market rather than a specific client. I quickly learned to do market research up front, and do more marketing at the back end to get my plans in front of prospective buyers.

I found early on that designing a successful stock plan takes some elegant juggling. We must accommodate ever-changing lifestyles while keeping our homes to a size and design that the average family can afford. And we must do it all with style and panache.

Most Americans live in homes between 1,800 and 2,200 square feet. Yet they still want a private owners' suite with all the amenities, open common areas, reasonably sized rooms, flexible spaces, efficient kitchens, and more.

marketing is key
One of the biggest challenges in the stock plan business is getting your designs into the marketplace. If you don't get exposure, you won't see any return on your design investment. It took a concentrated effort to get those first plans published, but once they proved themselves through volume sales, demands for more plans came quickly.

My next marketing step was to advertise my collections in publications with high-volume circulation to secure direct sales. I then targeted the building industry to capture repeat business. To get my firm's plans to builders as quickly as possible, I expanded into the publishing field. We began publishing Designs,™ our own magazine for builders. The free publication has proven very successful; we're now in our fifth year of publication.

diversification
I've always believed in the maxim that if you're not growing, you're heading the other way. That's one reason I've used diversification to grow my firm.

Not only are we an architectural firm and a publisher, but we are also a construction company. I started the construction firm for a number of reasons. Building our plans strengthens our design process. It also provides us
HOW TO EXPAND YOUR HOME DESIGNS WITH BASEMENT LIVING SPACE.

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with innumerable photo opportunities. Photos of completed homes are essential to our marketing efforts and enhance our national media exposure.

Diversification is important but not for its own sake. Notice that I didn’t start an ice cream parlor or a box factory. Everything we do must emerge from what we know. It must relate to existing business, and it must work together to strengthen each part. In my firm, $1 + 1 = 3$.

getting back to tradition—sort of

This same philosophy drives our newest endeavors—custom residential design and construction services to individuals, and design, planning, and construction services to developers. The stock plan business remains the basis on which we’ve honed our ability to understand and interpret what appeals to homeowners. But we are now bringing that knowledge and experience into the higher-end custom arena.

We’re partnering with resort developers to provide opportunities that will benefit everyone involved. An example is The Cliffs Communities in South Carolina, which consists of three mountain and lake communities. We are designing and building model home/sales offices in two of the three communities.

We are designing and building a collection of homes that will form distinctive villages within these two communities (one of which features a Tom Fazio–designed championship golf course). And we are working with a number of landowners in The Cliffs Communities to design, and perhaps build, their one-of-a-kind dream homes.

We find that our nontraditional connections with publishers and our in-house capabilities enhance all our relationships. We can offer added benefits and exposure to manufacturers and suppliers of the materials we use for construction. And our recent entry into the custom design market has infused our stock home designs with new ideas.

risks and rewards

It might seem that we in the stock house plan field design by faith. But it’s actually more design by market research—and a little faith. We must invest everything in a design before it is ever published, let alone sold. The investment in getting a plan ready to market can seem staggering. But once completed, that plan can produce revenue almost indefinitely. As a result, my firm hasn’t seen the fluctuations in workload and layoffs that are more common in traditional firms.

Copyright infringement is a constant battle, though. When your work is out there in the marketplace, it’s always at risk. There are some consumers and builders who take published plans to local drafting firms without purchasing the plan. Fortunately, the home building industry is beginning to address this issue.

Specializing in residential design can be risky if the housing market heads south. But I think we’re successfully counterbalancing that risk with a national presence and by diversifying to handle more than... continued on page 40
Because you never get a second chance to make a first impression.
perspective

just design. And frankly, time has helped, as we've built a collection of plans that can provide a cushion should future years prove lean.

I guess I'm really a businessperson first and an architect second. I love the challenge of creating new business in a nontraditional way. But anyone with the same desire and drive to create something that fills a need can do the same.

Looking back, it appears that I've actually built a national firm opposing tradition just about every step of the way. But as I look ahead, the challenges seem more traditional: finding the right architects with a love for residential work, and positioning my firm to continue to meet the changing marketplace so that when I move on we're still one step ahead.

"I love the challenge of creating new business in a nontraditional way."

—Donald A. Gardner, AIA

Donald A. Gardner, AIA, is founder and president of Donald A. Gardner Architects in Greenville, S.C.

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Continuing education is a fact of life for registered architects in many states—and for all who claim membership in The American Institute of Architects. Opportunities abound, as you’ll find when you log onto AIA’s Web site at www.aiaonline.com. But precious few courses focus on the residential end of the profession.

So we did a little legwork and came up with the following list of continuing education opportunities for architects who do housing.

scheduled programs
AIA’s Housing Professional Interest Area (PIA) offers continuing education programs to residential architects at these upcoming events: the AIA Convention (May 14–17, 1998, in San Francisco), the Annual Fall Housing Summit (October 23–25, 1998, in Philadelphia), Build Boston (November 17–19, 1998, in Boston), and the NAHB International Builders’ Show (January 15–18, 1999, in Dallas). For more information and a list of pre-approved programs, call the Housing PIA, 1.800.242.3837 or 202.626.7589.

Delve into AIA Online, and you’ll find more than 600 courses certified for continuing education learning units through an approved network of providers. Search by title for key words house, housing, or residential, and a handful of residential design courses rise to the surface:

Rethinking the House: Exemplary Designs and Methods
$560 (Quality Level 3)
This course highlights leading firms from around the country. Topics include practice and procedures; alternative working relationships for designers, owners, developers, and contractors; plans that address new family demographics; American house prototypes; and houses that bridge the gap between custom and production single-family homes. Contact the Harvard Graduate School of Design, 617.495.1680.

Rethinking the House: Improving Building Performance
$560 (Quality Level 3)
Two architects who specialize in building science and research lead participants in an examination of house construction details and systems. They consider new materials and technologies, climates, and building styles in their review of details (from footings to ridge vents) and systems (from roof leader drainage to HVAC controls). Contact the Harvard Graduate School of Design, 617.495.1680.

Forces of Change in Retirement Housing Design
$560 (Quality Level 3)
Evolving markets, regulations, managed care, technologies, and design approaches are changing the retirement housing field. Experts describe the forces behind this evolution, the future of “supportive housing,” new approaches to nursing home care, and independent housing options. Topics include market descriptions and niches, as well as planning, design, and operational...
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Circle no. 27
strategies to create successful projects. Contact the Harvard Graduate School of Design, 617.495.1680.

Affordable Housing and Historic Preservation
$325 (Quality Level 2)
Historic buildings can be used to provide affordable housing through combined programs of the U.S. Department of Housing and Urban Development and the National Park Service. Students will review case studies of successful applications and links to neighborhood revitalization. Contact the National Preservation Institute, 703.765.0100.

ongoing opportunities
Velux-America offers “Enlightened Spaces,” a use residential architect’s web site (www.residentialarchitect.com) to spread the word about housing-related continuing education programs.

Quality Level 3 seminar and workshop. It instructs participants on how to use daylight to enhance a home’s design and the well-being of its occupants. The program covers site selection and building orientation, interior shading, and ventilation; designing with natural light, including energy compliance issues and skylight applications; and the use of daylighting materials including glazing and sunscreens. The program is free. Contact Velux-America, 1.800.688.3589, ext. 4838.

The Passive Solar Industries Council (PSIC) offers two courses of interest to residential architects.

Table: States Requiring Mandatory Continuing Education

<table>
<thead>
<tr>
<th>State</th>
<th>Hours required</th>
<th>Renewal cycle</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>12</td>
<td>Annual</td>
<td>334.242.4179</td>
</tr>
<tr>
<td>Arkansas</td>
<td>12</td>
<td>Annual</td>
<td>501.682.3171</td>
</tr>
<tr>
<td>Florida</td>
<td>20</td>
<td>Biennial</td>
<td>850.488.6685</td>
</tr>
<tr>
<td>Iowa</td>
<td>40</td>
<td>Biennial</td>
<td>515.281.5596</td>
</tr>
<tr>
<td>Kansas</td>
<td>30</td>
<td>Biennial</td>
<td>913.296.3053</td>
</tr>
<tr>
<td>Louisiana (1999)</td>
<td>12</td>
<td>Biennial</td>
<td>504.925.4802</td>
</tr>
<tr>
<td>South Dakota</td>
<td>30</td>
<td>Biennial</td>
<td>605.394.2510</td>
</tr>
<tr>
<td>Tennessee</td>
<td>24</td>
<td>Biennial</td>
<td>615.741.3221</td>
</tr>
<tr>
<td>West Virginia (1999)</td>
<td>12</td>
<td>Annual</td>
<td>304.528.5825</td>
</tr>
</tbody>
</table>

Residential architects can also get credit for profession-related activities they engage in as a matter of course: traveling to sites of architectural interest, researching codes or specifications for a new project, or reading a designated article from Architectural Record, for example. AIA requires that you report these kinds of activities on an AIA/CES Self-Report Form, available through AIA Online.

Architecture firms can become AIA/CES-registered providers for an annual fee of $150, which allows them to conduct in-house programs and report employees’ learning units to AIA. Program ideas include project debriefings with lessons learned and roundtable discussion; videos; product manufacturer presentations; presentations by the firm’s own specialists; and workshops to evaluate and improve the firm’s processes. With some creativity and planning, it’s conceivable that a firm’s in-house education can also count as continuing education.

Residential Guidelines workshops ($50–$125; 2 to 24 learning units) explain how to assess passive solar opportunities in residential design using the Guidelines for Home Building and Builder Guide Software.

PSIC also offers a workshop on Designing Low-Energy Buildings with Energy 10 ($250–$300; up to 36 learning units, including 12 health, safety, and welfare—HSW—hours). The program provides instruction and hands-on computer training based on the Passive Solar Strategies guidebook and Energy 10 software as they relate to small buildings. Several sessions are planned throughout the United States for 1998. Contact PSIC, 202.628.7400, ext. 210.

The Architectural Woodwork Institute offers programs for architects who design and specify fine custom woodworking. Courses range from an introduction to the Institute’s 7th Edition Quality Standards Illustrated to workshops on veneers. Program locations and costs vary. Contact the Institute, 703.733.0600.

continued on page 48
Architecture is life itself taking form. — Frank Lloyd Wright

Every aspect of its design brings a house more vividly to life. A compelling reason to consider the Carriage House Shangle.** An expression of elegance and style rarely seen in roofing today, with wide chamfered corners, deep 8-inch tabs and distinctive shadow lines that recreate the appearance of natural scalloped edge slate.

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Circle no. 97
about aia’s learning units

The AIA requires 36 learning units (LUs) a year. Eight hours must address health, safety, and welfare (HSW) issues.* Program length x quality level = number of LUs (for example, a 3-hour, Quality Level 3 program = 9 LUs)

Quality Levels
1: Reading, product analysis, lecture attendance.
2: Participants interact with each other and the learning resources through roundtables, focus groups, etc. (must meet Level 1 criteria).
3: Incorporates measurements and feedback. Two-hour minimum program length required. (must meet Level 1 and 2 criteria).

* defined as those issues addressed by the Architecture Registration Examination—anything that relates to the structure or soundness of a building site.

A rational program could generate the entire 36 learning units required. Contact the AIA/CES office, 202.626.7436.

state requirements

States have begun to establish their own continuing education requirements for the architects they license. Many states recognize AIA learning units, but also are developing their own databases of approved providers and courses. Not all AIA-approved programs meet state requirements, however, cautions Denver architect Mike Kephart, AIA, who is registered in Florida and works there periodically. Architects can request a state’s requirements and course and provider lists by calling the state licensing board at the phone numbers listed in the box on page 46.

spread the word

No central clearinghouse exists for housing-related continuing education. Why not use residential architect’s Web site to share information about relevant programs? To let your colleagues know about the best and worst courses you’ve taken, access www.residentialarchitect.com, select “Community”, and click to enter “The Business” chat room. Be sure to include topic, provider, location, and cost information. L. Catherine Hader is marketing manager for the Arlington, Va., office of Daniel, Mann, Johnson, & Mendenhall, an international architecture/engineering firm.

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Circle no. 68
Kirch founded his firm, N.T.S. Architects & Planners in Richardson, Texas, in 1997. “My primary goal is to do good work—to feel good about what I do, and to raise people up through this profession,” he says.
thinking about starting your own firm?
here's some advice from your peers
who've been there, done that.

intentions

by susan bradford barror

restless?
Tired of playing second fiddle? Ready to unleash your creative energies on the residential design world? Then you're probably thinking hard right now about going out on your own. It's a time-honored cycle: A talented novice learns at the master's knee, then sets out to achieve greater glories. But unless you see yourself playing the role of a starving artist, you need a solid business strategy to start you on your way.

think it through
According to the U.S. Small Business Administration, 10% of new businesses fail in the first year, and only 20% survive 10 years. "A lot of architects fail because they set up their business in a reactionary mode," observes Cincinnati architect David S. Arends, AIA. Arends devoted a full year to developing a business plan before he incorporated his firm, Architecture One, in early 1997. "I was very methodical. I targeted client groups and developed marketing materials. And I worked with an attorney and an accountant—both of whom were invaluable—to get the business set up."

Like Arends, Deryl Patterson, AIA, had a business plan in place before she left The Evans Group to establish her residential practice in Jacksonville, Fla. "Where will I get my clients? That's what I focused on," she recalls.

Atlanta architect Boye Akinola, AIA, built a private practice on the side while working for another firm. There was no conflict of interest: Akinola did multifamily housing for his employer and custom houses for his own clientele. "It took me three years to save money and buy equipment," he says. "So by the time I went out on my own, I had most of what I needed. My only real start-up cost was rent."

As architects go, Arends, Patterson, and Akinola were more businesslike than most. It's far more typical for start-ups to build their practices on instinct rather than on sound business strategy. David Kirch left the Dallas firm of Humphreys & Partners Architects confident that clients would follow him. "I did it all on that assumption. I actually had no jobs lined up when I left," he says. Though he was careful not to solicit Humphreys' clients while he was still on the firm's payroll, he did let them know where to reach him after he left. "The next Monday morning, three of my former clients called," he says.

Kirch does not apologize for his lack of formal business planning. "I had clients who liked my work while I was at Humphreys, and I was well-known in the community." A year after he opened his doors as N.T.S. Architects & Planners, the 41-year-old has a staff of five and a salary that exceeds what he earned as a vice president at Humphreys.

timing
"I always knew in my gut that I wanted my own practice," says Arends. Wisely, he chose to launch in a boom economy.
firm intentions

“There was plenty of work to be had, and the banks were lending.”

Patterson’s decision was client-driven. She had spent five years managing a regional office for her Orlando, Fla.-based employer, during which time she developed a local clientele for the firm. “My clients complained that they were paying money to a name they never dealt with or saw. When they started telling me I should go out on my own, I knew the time had come,” Patterson says.

For Kirch, the time came when he and his boss, Mark Humphreys, no longer saw eye to eye on what the firm’s priorities should be. “Mark was more marketing focused,” Kirch says simply. Confident that he could build on his contacts, he left.

money matters

When it comes to start-up expenditures, residential architects fall into two camps. The bare-bones crowd believes in modest beginnings, complete with fire-sale furniture and a cousin’s cast-off computer. The high-rollers, on the other hand, assert that they must spend money to make money. Interestingly, none of the architects interviewed for this story—neither the penny-pinchers nor the big spenders—turned to banks for start-up funds. They self-financed or borrowed from family members, and most repaid their debts in less than a year.

Boulder, Colo., architect Anne E. Olson, AIA, spent a grand total of $4,000 to launch Olson Studio in 1994. Two-thirds went to computer equipment, the rest to rent and a simple newsletter announcing her new firm. She’s spent more since on additional computers, a plotter, and a blueprint machine. “We’re pretty conservative,” she says. “We wait until we definitely can afford something”—whether it’s a computer or a new staff person.

At the other extreme is Kirch, who invested $35,000 to install a print shop in his 1,500-square-foot start-up space. “The idea was that I could sell printing services to bring in extra income, if I had to,” he explains. His total up-front investment was around $60,000, all out of his own pocket. “I paid myself back within six months,” he says proudly.

Andreas put his money into snazzy marketing materials rather than sophisticated computer equipment. “You want to see. When they started telling me I should go out on my own, I knew the time had come,” Patterson says.

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start with a professional image,” he says. He estimates his start-up costs at less than $13,000, which came out of his family savings. “I couldn’t have done it if my wife hadn’t had an excellent job to carry us through the first few months,” he admits.

Patterson borrowed $50,000 from a family member, which she paid back within a year. The money went to staff (she brought two people with her from The Evans Group), rent on modest office space, and a suite of used furniture, which she bought from her former employer. “Keep your overhead low,” she advises. “Don’t go overboard on a ‘nice environment.’ Hold meetings in your clients’ offices so that you don’t have to pay for an image.”

Cheryl O’Brien recently started her own firm in suburban Philadelphia after working as an in-house architect for two prominent home building companies. The launch cost her about $20,000; she paid herself back within a year. She economizes by sharing a conference room, photocopier, fax machine, and an administrative assistant with another small business owner.

Liability insurance is an expense you’ll want to build into your budget from the outset. The premiums can seem staggering. But many home builders (and most public agencies) won’t even talk to you if you don’t carry insurance, warns Adele Chang, AIA, of Lim Chang & Associates in Pasadena, Calif. “The premiums are based on volume, so they weren’t overwhelming when I was first getting established,” Chang says.

Like Chang, O’Brien was insured from day one. She praises the providers she dealt with—Monterey, Calif.-based D.P.I.C. and Victor O. Schinnerer & Co., in Chevy Chase, Md.—for the business guidance they provide to small start-up firms like hers.

computers

Patterson waited 18 months before she invested in CAD equipment. In the meantime, she used her family’s computer for word processing and did drawings by hand. That was back in 1992; nowadays, CAD is a must from the outset. Most architects interviewed for this story recommended buying mid-range rather than top-of-the-line equipment, knowing that you’ll have to upgrade eventually. A typical work station set-up runs about $2,500 to $3,000.

O’Brien bought her own computers, but leases plotting and printing equipment under a lease-to-own program that has eased her initial cash outlay. “It’s a good arrangement, because I can upgrade while I’m still leasing,” she says.

Kip Oldham, AIA, recently left a large multidisciplinary firm in Atlanta to launch his own practice. He scoffs at architects who overspend for computer equipment. “My former firm was totally CAD-based,” he says. “From what I observed there, my opinion is that the computer providers are selling architects on far more—and more expensive—equipment than they need. With some pretty simple upgrades, you can make old equipment work to do new tasks. So why kill yourself with debt?”
competing for clients
Olson had it rougher than most when she left Downing Thorpe James (DTJ), a 55-member residential design and planning firm in Boulder, Colo. The firm requires its associates to sign a two-year noncompete agreement, which stipulates that if they leave the firm, they can’t start their own practice for six months. DTJ waived the six-month rule for Olson. “They knew I wanted to start my own firm,” she says. “We parted on friendly terms, so they were cooperative”—up to a point. In return for the waiver, they gave her a lengthy list of current and prospective DTJ clients she could not market to.

Olson’s experience is extreme; in fact, few residential firms require their personnel to sign such agreements. Says Kirch, “Nowadays, no architect is going to sign a noncompete clause unless there’s a substantial cash reward.” Most firms take a more pragmatic approach, realizing that certain clients will follow departing talent while others remain loyal to the more established firm.

When Patterson decided to leave The Evans Group, she told firm president Don Evans that she wanted to buy out the regional office she’d been running for the past five years. “I tried to anticipate his concerns by telling him I’d assume the lease, keep the staff, and pay him for the office furniture,” she says. As for clients, “we negotiated the terms on a job-by-job basis.” Patterson agreed that she would complete all work in progress, and that she would not solicit new projects from any clients owing The Evans Group money. For jobs won but not yet begun, she paid Evans a prorated “finder’s fee” based on how much time she’d invested in each job.

“There was no noncompete agreement,” Patterson says. “We left it up to clients to decide who they preferred to work with.” Some wanted The Evans Group’s land planning expertise and regional visibility, while others liked the individual attention a smaller firm like Patterson’s could provide.

marketing strategies
Face-to-face networking and well-targeted mailings are the most effective ways to market your new firm’s services. To drum up new business, both Olson and Patterson increased their involvement in their local home builders associations. “I had been active in the HBA for 10 years before I went out on my own, so people already knew me,” says Olson. Since many of Denver’s larger builders were off limits to her due to her departure agreement with DTJ, Olson focused her energies on small companies that couldn’t afford the services of big design firms. “I told them I could do smaller jobs for lower fees because I had less overhead.”

Patterson sent letters to her former Evans Group clients, detailing the service improvements her new firm would deliver. She told them she would not bill for her travel time, and she would make site visits during construction at no added cost. She even addressed former clients’ complaints that they were nicked and dimed on paperwork charges by pledging to fax for free.

Meanwhile, she joined the board of her local HBA and chaired the association’s parade of homes. “I did whatever I could to get my name out there” in front of potential home builder clients, says Patterson, who estimates that 75% of her work has come from HBA networking.

“i did whatever i could to get my name out there.” — Deryl Patterson, AIA

Deryl Patterson

Patterson’s six-year-old firm in Jacksonville, Fla., is family-friendly. She shares computer costs with staff who want to work from home.
firm intentions

O’Brien first announced her new firm by sending Christmas cards—with her new business card—to an extensive mailing list. With a few jobs under her belt, she then developed a marketing package with testimonials from recent clients. The package looks sophisticated but is in fact quite inexpensive. Rather than pay for printed folders, she bought simple black folders and affixed elegant metallic labels bearing her company’s logo. Her insert sheets include the testimonials, a list of recent projects, and a firm profile. Again, they are simple, tasteful, easy to update, and economical to produce.

staffing for growth

“You can’t do everything yourself,” warns Kirch. “A lot of architects make that mistake when they go out on their own.” Kirch’s first hire was a former coworker whose construction and computer skills complemented his own design expertise. Like Kirch, Patterson looks for people with diverse talents to round out her firm’s offerings. Her administrative assistant has graphic skills and a marketing background. “She helps with presentation drawings and makes some marketing calls for me,” Patterson says.

For new firms with uncertain cash flow, part-time and contract personnel may be an economical option. Both Olson and O’Brien started with part-time administrative staff. Chang worked solo for the first year, eventually contracting for design help on an as-needed basis. Eight years later, her full-time staff includes seven architects and designers plus an administrative person. “I still outsource working drawings and isolated packages such as windows,” she says. Kirch also outsources production work as needed. “I’m real picky about quality,” he says. “But it gives me more flexibility and keeps my overhead lower.”

Right now, Kip Oldham has a staff of one—himself. But when the time comes for him to hire, it won’t just be a draftsman, he says. “In my old firm, staff was informed on a ‘need-to-know’ basis. I’ll look for people who want full participation—who care enough to question me.”

learning the ropes

None of the architects interviewed for this story turned to books or classes to help them start their practices. All cited on-the-job experience at their former firms and the help of business-savvy family and friends.

That said, Professional Practice 101 may come in handy as a reference. This new book by Andy Pressman, AIA, presents business and management strategies for architectural practices. Though the book is not specific to residential firms, Pressman does residential work, and his contributors include such housing architects as Duo Dickinson and Jeremiah Eck.

Professional Practice 101 is no classroom textbook. It has a distinctly idiosyncratic tone: an essay by Charles Gwathmey on the importance of design; Pressman’s account of a house he designed in New England. An array of architects, consultants, and professors contributed chapters on such topics as financial management, marketing, liability issues, computers, and nontraditional practice. Of particular relevance: a section titled “Firm Start-Ups in the 90s.”

“we’re pretty conservative. we wait until we can definitely afford something.”—anne e. olson, aia

anne e. olson, aia

Olson started her own firm in Boulder, Colo., in 1994. “I wanted the freedom to manage my own time and my own projects,” she says.
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southern comfort

neotraditional communities come home to Dixie.

by nora richter greer
Gertrude Stein is rejoicing from the grave. Her suburban lament—"there’s no there there"—dammed a generation of community building. But a new song is being sung. It’s called the neotraditional town planning movement. And it’s especially resonant in the southern United States, which leads the country in the creation of traditional neighborhood developments (TNDs) predicated on neighborliness and a sense of place. Of the 64 TNDs now being developed nationwide, 43 are in the South, according to market researcher John Schleimer whose Roseville, Calif.-based company, Norcal Market Perspectives, tracks TNDs.

It’s clear that the 1980s success of Seaside on Florida’s panhandle has sparked a southern revolution. “It has raised the ante by forcing everyone to talk about human issues in real estate development—about community,” says Florida real estate marketing consultant Christopher Kent. Architects, planners, and developers are working together to capture in new neighborhoods the intimacy and sociability found in small towns of the past.

Seaside
It has been 17 years since Seaside began on 80 sleepy acres of Florida’s Gulf Coast. There, developer Robert Davis teamed with architects-planners Andres Duany and Elizabeth Plater-Zyberk to create a new-cum-old community with houses fronting narrow streets and alleys behind—all within walking distance of shops, parks, and the beach. The goal was a pedestrian-oriented small town with architecture that responded to the street and the region’s heritage. This in effect became the credo for the neotraditional movement.

Seaside has penetrated the southern consciousness. It isn’t just design professionals and developers who know the resort community; it’s the average southern consumer. Witness the success of Rosemary Beach (right), a Seaside spin-off designed by Duany and Plater-Zyberk. Says Louis Joyner, building editor of Southern Living magazine, “People in the South vacation in Seaside and become familiar with the idea of a traditional neighborhood development. TNDs are not a hard sell here.”

Dawn McGriff concurs. She’s one of the founders of Gorham’s Bluff, a four-year-old TND in northeastern Alabama (see page 65). “Seaside has educated a lot of people about the kind of community we’re trying to build here,” she says.

Case study

I’On, Mt. Pleasant, S.C.

This 243-acre TND near Charleston, S.C., builds on lessons learned at Newpoint, developer Vincent Graham’s earlier neotraditional community in Beaufort, S.C., Says Graham, “At Newpoint we copied elements from places like Beaufort and Savannah. We measured their streets and sidewalks. At I’On, we understand what is behind the measurements.”

I’On will consist of six neighborhoods, each with from 80 to 150 homes. The original master plan by Duany and Plater-Zyberk and Dover, Kohl & Partners was refined by Seamon Whiteside & Associates and Designworks. The first phase of development will be a lakeside neighborhood with a boathouse pavilion, recreational fields, playgrounds, and a park. Graham sold the first 43 lots by lottery last fall; home prices range from $200,000 to upwards of $500,000.

What makes I’On unique is its design code based on the low-country vernacular found throughout the South: simple elegance and fine materials using classically derived proportions, raised foundations, and deep porches. The goal is to capture the culture surrounding the southern porch.

Max L. Hill III, author of the I’On design code supplement, writes: “It is said that the soul of a place is hard to define, until it is missing and you know something very important is gone. The loss of the porch and its significant role in the public realm has taken its toll on our sense of place and feeling of neighborhood ... I’On has brought porches back, returning these ‘living rooms’ to the street.”
"When I talk about Gorham’s Bluff, I ask people to picture Seaside on a bluff instead of the beach, and as a full-time town instead of a resort."

southern hospitality
The South seems a natural place for TNDs to flourish, given its small-town heritage and the comfort of its vernacular architecture. Consider this advertisement for the new town of Newpoint in Beaufort, S.C., by developers Vincent Graham and Robert Turner: “Life was once simpler and slower. Neighborhoods were close knit communities of friendly people who knew and cared for each other. That is the appeal of Newpoint.”

The architecture of Newpoint—and southern TNDs generally—revolves around the front porch, an icon of southern living. Yet Graham recognizes that just adding porches won’t accomplish his goals unless the entire community participates in the “act of porching,” as he calls it—using the front porch as a stage for social activities. And so he prefaces the design guide for his newest neotraditional community, I’On in Mt. Pleasant, S.C., with a full-page illustration titled “Anatomy of a Great Porch.” And he devotes four more pages to porch design.

The South seems to offer greener pastures for new TNDs. Or at least it seems easier for developers there to get zoning changes to accommodate the hallmarks of neotraditional design: reduced setbacks, small lots, alleys, shops and restaurants, and apartments over storefronts. “Permitting in the South is easier,” says Kent. “It is very different from other areas of the country”—perhaps because local governments there are less removed from traditional town planning patterns than their counterparts in heavily suburban areas of the country.

profit motives
TND investment is minuscule when compared with residential real estate development as a whole. But as a niche opportunity, its growth has been impressive. According to Robert Chapman III, president of The TND Fund, an equity invest-

Like Seaside, Rosemary Beach is a neotraditional resort town filled with custom homes grouped around a shopping district and the beach. Home prices start in the $300s (including lot). The carriage houses (above) were designed by Eric Watson Architects (front), Rosemary Beach town architect Richard Gibbs (middle), and Elizabeth Guyton (back).

case study
Rosemary Beach, Walton County, Fla.

The 104-acre town of Rosemary Beach fronts the Gulf of Mexico 8 miles east of Seaside. The challenge for founder Patrick Bienvenue, planners Andres Duany and Elizabeth Plater-Zyberk, and town architect Richard Gibbs, was to create a community with the ambience of Seaside but with its own personality: that of a small waterfront town with richly southern overtones drawn from St. Augustine, Fla., New Orleans, and the Caribbean.

All the houses at Rosemary Beach are custom designs. Design elements include deep eaves, shuttered sleeping porches, hipped roofs, and high ceilings that allow sea breezes to circulate. Houses are finished with wood siding, cedar shingle, or stucco, with metal or shake roofing—materials that will mellow naturally in the sea air.

Designed to be experienced on foot, Rosemary Beach will be an intricate patchwork of public spaces and varied housing types and densities, woven together by streets, lanes, and sandy footpaths. The town center will feature a town hall, post office, restaurants, and an inn. Nearly 140 homesites have sold since Rosemary Beach opened in March 1996. At completion, the community will have about 500 homes.
southern comfort

ment group in Durham, N.C., TND investments to date total an estimated $1.4 billion, a figure that has grown by 60% annually over the last five years.

The annual return on investment can range from 18% to 45%, Chapman found in examining six southern TNDs (Haile Village Center in Gainesville, Fla.; Newpoint in Beaufort, S.C.; Seaside; Rosemary Beach in Walton County, Fla.; Southern Village in Chapel Hill, N.C.; and Tannin in Orange Beach, Ala.). Chapman predicts that investors will remain bullish about TNDs. “At the current rate of increase, the total invested in TNDs will rise to more than $10 billion in the next five years,” he says, asserting that the booming South will retain much of the new development.

pattern languages

Neotraditional communities share certain general planning concepts. But ultimately—unlike more generic cookie cutter developments—each TND must establish a unique image. “They need personality and richness,” Kent says.

Most TNDs use pattern books, design codes, and architectural review boards to define aesthetic continuity. The most effective guidelines are flexible enough to allow for architectural diversity as well. Michael K. Medick, AIA, of Looney Ricks Kiss Architects in Memphis, Tenn., warns against codes that are too rigid. His firm’s pattern book for Harbor Town, a nine-year-old TND in downtown Memphis, has allowed a coherent, yet diverse, array of housing. The same can be said of Seaside and Rosemary Beach, where contemporary designs borrow judiciously—and often whimsically—from the past.

But pattern books and review boards are tricky business. Architects who do business at Celebration, Disney’s much-heralded TND near Orlando, Fla., must follow a heavily prescriptive pattern book with a choice of six architectural styles—all of which had their heyday before World War II. Among design professionals, opinions about Celebration’s housing range from “cookie cutter” to “Mr. Potato Head” to “facadism.” At Celebration, observes Donald Jacobs, AIA, president of JBZ Dorius Architecture and Planning in Newport Beach, Calif., “fear of creating terrible architecture [has led to] mediocrity.”

the new south

Today’s architects, planners, and developers have the advantage of studying the first generation of TNDs—Seaside, Harbor Town, Kentlands in Gaithersburg, Md., and others—as they prepare to launch new communities of their own.

The four young southern TNDs profiled here represent the next generation. To succeed, they must meet the social and demographic needs of tomorrow with lessons learned from the past. ra

Nora Richter Greer is a freelance writer in Washington, D.C.

Brodie Creek, Little Rock, Ark.

Brodie Creek is a family affair, for the grandparents of the five partners originally owned its 695 acres. Having been influenced early on by Seaside, Kentlands, and Harbor Town, the family held a five-day charrette with an eclectic group of architects, planners, writers, and local residents to develop design guidelines for their new TND. Development was slowed by an apprehensive city, which had to be convinced to change codes and zoning requirements.

The first of Brodie Creek’s four neighborhoods is now under development. Its 161 lots face a semicircular green; as of press time, 28 homesties had sold. A total of 800 houses are planned, plus a school, church, shops, restaurants, and offices. Houses average a 10- to 15-minute walk from public areas. The developers are making a special effort to retain the forested character of their land, which features two lakes, a pond, and several streams. Most of all, the goal is to provide a sense of community in an area of Little Rock where it is lacking.

This house by town architect John Allison of Allison Architects in Little Rock, illustrates Brodie Creek’s design code. It serves as the community’s sales center.
The architecture at Gorham’s Bluff, governed by a published design code, takes cues from the local climate. Deep roof overhangs and high ceilings help ventilate buildings during hot, humid summers. An inn (above) designed by town planner/architect Lloyd Vogt of The Vogt Group in New Orleans lures visitors to the new community. Vogt also designed the 1,800-square-foot house shown on page 60.

**case study**

**Gorham’s Bluff, Pisgah, Ala.**

This 186-acre new town in Appalachia sits on a bluff overlooking the Tennessee River. Preserving the bluff and its magnificent view is the goal of landowners and town founders Bill, Clara, and Dawn McGriff, who have set the bluff aside as a park for townspeople and visitors to enjoy.

The McGriffs hope to attract a mix of retirees, vacation homeowners, and telecommuter professionals to this remote paradise, which is an hour from Chattanooga, Tenn., and Huntsville, Ala., and two hours from Atlanta and Birmingham, Ala. Gorham’s Bluff will feature an artists’ district and a host of musical, theatrical, and educational programs. One of the community’s first buildings, a bed and breakfast overlooking the river, has been an enormously successful vehicle for bringing visitors to the community—so successful, in fact, that Thanksgivings there are booked through 2002. Some 350 houses are planned, at prices ranging from the $120s to the $150s.
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Circle no. 20
Light-capped maple columns support 12-foot-high ceilings in a single-story Bethesda, Md., home. The low-tech toppers consist of dimmable incandescent bulbs housed in sandblasted glass boxes. "We try to uplight high-volume ceilings to get rid of shadows," says Mark McInturff, AIA.
interior lighting techniques step out of the shadows.

"85% of the information we take in about our environment comes in through our eyes," says New York lighting designer Jules Horton. "That answers the whole question as to why lighting in the home is so crucial." Residential lighting serves the same purpose for a home that stage lighting does for an actor—to make the object of illumination look its best. From a well-placed 50-watt incandescent to a whole-house, top-of-the-line system, good lighting carries vast power to enhance the architecture and quality of life inside a home.

Unfortunately, though, it's often the first thing to go when time and budget constraints arise. "It's hard to find clients who are willing to pay for the best lighting products," admits Cincinnati custom architect John Senhauser, FAIA. And most
Multiple light sources give the owners of this San Francisco home a range of scene-setting options. House + House Architects used a low-voltage halogen accent to draw the eye to the left-side cabinets' curved form. Recessed halogen downlights wash the fine-grained right-side cabinets; exposed task lights illuminate food preparation without upstaging the two sinuous blue accents.

Whimsical 24-inch-long task lights over this San Francisco vanity flex to accommodate users' individual heights and preferences. House + House Architects used PAR-20 line voltage lamps to permit shadow-free illumination.
Unobtrusive wet-location wall-washers in this sloped ceiling provide ample task light for showering and shaving. The lights contribute overall ambient light to the owners' bath and highlight the room's silver and granite accents. Stuart Shayman Architects designed the Highland Park, Ill., home.

production architects don't get involved in lighting the homes they design at all. Rather, it's left up to the builder, interior designer, and electrician.

But no matter who's calling the shots, lighting design is something architects can't afford to take, well, lightly. “Lighting shouldn't be an afterthought,” says San Francisco custom architect Steven House, AIA. “Architects should consider it from the very beginning of a project”—whether it’s a tiny studio apartment or 10,000-square-foot vacation home. In fact, thoughtful lighting can have an even more dramatic effect in small spaces.

Whether you design lighting yourself or work with an outside provider, it pays to understand the basic types and functions of lighting. Not only does a working knowledge of lighting options enhance your designs, it also strengthens your relationships with clients and contractors.

**task lighting**

Task lighting, which illuminates work areas like kitchen counters or bath vanities, is a key component of an architect's toolbox. The type of lamp to use depends on the activity it will light. Compact or linear fluorescent lamps, which cast a wide, flat wash, work well for tasks that require absolutely shadow-free light, like shaving or applying makeup. Halogen downlights are preferable for tasks that need a strong amount of concentrated light, such as chopping vegetables or writing letters.

Light source placement is as important as choosing the right kind of task light. Think about where the task-doer will be standing or sitting, and make sure the light doesn’t create shadows that may interfere with the task at hand. Will he or she be physically close to the light source? Then cool compact fluorescent light is probably better than hot halogen or incandescent. Where are the room’s reflective surfaces—windows, TV screens, computer screens, aluminum counters, mirrors? If a light source is positioned to reflect too much in any one of them, it creates glare that undermines the entire purpose of task lighting.

**ambient lighting**

Ambient lighting is the combination of indirect light sources in a room that provide overall illumination. Its basic principle: the more, the better. Layers of light at different
Skilful lighting shows off custom molding in a house in Deer Valley, Utah, by Jack Martin Thomas, AIA. MR-11 halogens uplight glossy pillars. Seven-watt xenon gas lamps provide cove lighting to give the hallway's barrel vault ceiling added depth and dimension. Xenon lights are costly to run and technically difficult to install, but they rarely need changing—a big plus in hard-to-reach locations.
Incandescent bulbs encased in a flexible vinyl tube accent a sculpture in a Eugene, Ore., home. Architect Daniel Milton Hill, AIA, concealed most of the \( \frac{3}{4} \)-inch diameter strips so that viewers notice the art, not the lighting. The tubes separate easily so that homeowners can replace burned-out bulbs.

heights and intensities give a room pleasing texture and dimension. And the best ambient lighting blends so well into the home that it’s hard to notice. “Our lighting is consistent with the architectural character of our homes,” says Washington, D.C., custom architect Stephen Muse, FAIA. “If our clients notice the lighting rather than the effects, we’re doing something wrong.”

The first step in planning ambient lighting is to analyze a room’s architectural strengths and weaknesses. Installing a row of wall-washers in a small room with few windows visually expands the space, for example. It also highlights textured wall surfaces like stucco or exposed brick. Iris Lighting Systems makes compact fluorescent wall washers with fresnel kickers that maximize the amount of light hitting a wall. The system’s lenses and lamp types are easily interchangeable, making it simple for homeowners to change a compact fluorescent wall-washer to a halogen accent or other lamp.

Cove and perimeter lighting is a highly effective ambient lighting technique. It can make low ceilings appear higher, delineate separate zones in a room, or subtly contribute to the overall light in a room. “One of the most underused opportunities for home lighting is linear fluorescent lighting,” says Russ Leslie, AIA, associate director of the Lighting Research Center at the Rensselaer Polytechnic Institute School of Architecture in Troy, N.Y. “It is glare-free, easy to change, and you can work it into details like soffits and coves.” Linear fluorescents can also uplight otherwise dead space along the tops of bookshelves or kitchen cabinets. To counteract fluorescent light’s bluish glow, most manufacturers offer color-corrected lamps. And don’t forget good old incandescent bulbs, which cast a warm glow that’s not as strong as halogen or fluorescent.

accent lighting

Light meant to illuminate a specific object or surface is known as accent lighting. Though it’s not as indispensable as task or ambient light in a home, accent light can make the difference between a well-designed house and a spectacular one. “It’s hard to get many production builders to spend time and money on accent lighting,” says architect Don Jacobs, AIA, of JBZ Dorius Architecture + Planning in Newport Beach, Calif., who designs both custom and production homes. “But they’re missing an opportunity to make their production houses feel more custom, which can really help sales.” Recessed accent lights in art niches, for example, add an upscale touch to mid-range model homes.

Crisp white halogen downlights and adjustable accents are usually good choices for highlighting artwork because of their true color rendering ability. In the case of a row of pictures, wall-washers work too. Most manufacturers make UV filters for compact fluorescent lenses to protect pictures from ultraviolet damage. When lighting artwork, placement is key. A light that reflects in a shiny or glass covered painting creates an annoying glare.

Accent lighting isn’t exclusively for art, however. Halogen downlights in glass-front cabinets make crystal and china sparkle. Curves and rounded walls stand out when washed with wide-lens incandescent, halogen, or fluorescent light. And downlights angled through openwork stair railings produce attractive shadow patterns on a smooth floor. Halogen is also easy to shape into a pinpoint beam for showing off flower arrangements and intricate architectural flourishes.

control issues

Controls are the most essential part of home lighting design, says Rosemarie Allaire, head of the residential lighting division at Francis Krahe Architectural Lighting in Laguna Beach, Calif. “Most people spend at least eight hours a day in an office where they have no say over the lighting,” she says. “When they come home, they want to be able to control lighting direction and intensity exactly.”

Elaborate lighting control systems designed for ultra-high-end homes allow homeowners to access their lights from anywhere in the world by computer or telephone. These whole-house systems feature several different lighting schemes in every room, each activated at the touch of a switch, telephone button, computer key, or remote control. Lutron recently introduced a wireless radio frequency system called...
Radio RA, which is ideal for renovations since it doesn’t require re-wiring.

Controlling lighting doesn’t have to be expensive or technologically complex, however. Simply adding a dimmer in every major room exponentially increases a room’s function and versatility at minimal cost. In Sarasota, Fla., production builder Lee Wetherington offers a continuous dimmer as a $20 option. Automatic switches in closets and pantries are another way to make homeowners feel more in control of their lighting. And remote-controlled lighting is especially useful for older homeowners and people with physical disabilities.

Many of the old concerns about lighting controls are becoming obsolete. Fluorescent lights used to be difficult to dim; now many companies, including Lightolier, Lutron, and Leviton make dimmers just for fluorescents. Control manufacturers are also working to eliminate the loud buzzing that commonly discourages architects from using inexpensive dimmers. And as the demand for sophisticated lighting controls grows, more inconspicuous switches are appearing on the market. “My clients certainly don’t want a wall that looks like John Glenn’s dashboard,” says Washington, D.C., architect Hugh Newell Jacobsen, FAIA.

lighting designers
In custom and upscale production projects, the question of whether to use a lighting designer often comes into play. According to the 1997 AIA firms survey, residential firms design their own lighting and use outside consultants in equal numbers. The figure for primarily nonresidential firms is more lopsided; half hire out for lighting design and 27% do it themselves. (The rest do it both ways or didn’t respond to the question.)

Projects with smaller budgets don’t necessarily have to forgo the lighting designer route. Washington, D.C.-based lighting consultant George Sexton Associates has an “open agreement” arrangement whereby an architect buys a few hours of consulting time rather than a whole lighting design package. The lighting designer benefits from exposure within the architectural community, while the architect gets an expert’s input at greatly reduced cost. Allaire and San Francisco lighting designer Novella Smith report similar consulting relationships with local architects. Each charges about $100 an hour for lighting design services; Sexton usually imposes a “not to exceed” limit so that fees don’t get out of control.

Some residential architects use lighting designers because it leaves them free to concentrate on design. “I used to keep up on lighting on my own,” says Jacobs. “But the industry has gotten so specialized, you need an expert if you don’t have time to become one yourself.” Others assert that lighting is too integral to a home’s architecture to be handed over to someone else.

“Architecture is light and space,” says San Francisco custom architect Dan Phipps, AIA, whose interest in lighting stems from courses he took in architecture school. “I only use an outside lighting designer if the client specifies it.”

One aspect of residential design isn’t up for debate, however. The architect’s primary goal—to create an aesthetically pleasing and livable house—holds true across the board. And good lighting is fundamental to that goal.

See page 93 for product information.

resources
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Web site: www.iald.org
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Lighting Research Center at the School of Architecture, Rensselaer Polytechnic Institute
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ike many executives nearing the end of an active career, Ron Zuckerman decided it was time to make room in his life for simplicity. "He wanted a house that was more peaceful, more minimal, and had more direct contact with nature," says Andrea Clark Brown, AIA, whom Zuckerman and his wife, Gretchen, commissioned to design their new residence in Naples, Fla. "Paring down was part of that."

**site specifics**
The home's location was vital to Zuckerman's vision. The 1 1/4-acre lot is located in a gated golf course community. The particular site the Zuckermans chose sits beside a nature preserve. Sable palms, endangered cypress, scrub pines, and a low undergrowth of palmettos dominate the lot, which overlaps...
an area of protected wetlands. “That was the reason they selected the property—because they wanted to have exposure to a native Florida setting,” says architect Andrea Clark Brown.

Soon after the Zuckermans purchased the lot, the design team pulled on boots and walked it, tagging trees they wanted to keep and planning the home’s location. Along the way, Brown discovered a natural clearing and subtle shifts in the terrain. “From that exercise, the overall sensibility of the house evolved,” she says. We felt it needed to be elevated a little so that the natural environment could remain unchanged.”

**of the land**

That idea set the tone for the 4,800-square-foot house—a composition of two adjoining buildings that seem to float on a platform just above the landscape and beneath the wide roof overhangs. Brown sought to relate residence to landscape with connective devices such as pebbles, grasses, and waterways. One example: rivulets that pour off the house during rainstorms and converge in a pebble garden. “There’s a wonderful quality of sound to it,” Zuckerman enthuses.

While neighborhood covenants restricted the roof pitch and materials, Brown says the imposed limitations did nothing to hinder the design. It was strictly by choice that she whittled the palette of materials to its essence: wood, glass, stone, and stucco.

**spare rooms**

Committed to a decidedly nondecorative approach, Brown forged an aesthetic that relies on a direct expression of structure and a philosophy that “everything must do work.” The loftlike interior space achieves a rich effect with the sparest of means. It is a fitting complement to the site’s landscaped courts, gardens, and untouched flora.

“The house is about intersections of wall and columns. It’s sort of the old Corbusian idea that a column is a wall with the wall removed,” Brown says.

The layout of the house took its cues from the clients’ initial wish list. Devotees of Japanese cooking, the Zuckermans wanted a kitchen inspired by the “small scale ritualism” of Japanese food preparation, as Brown puts it. Still, she didn’t want to fall into the trap of formal cliches. “It was important for this to be authentic—but authentically Florida, not
Wood elements and simple forms lend a calming simplicity to the interior. The cypress ceiling panels "mitigate the vast height of the room, helping to make the space more warm and intimate," says architect Andrea Clark Brown.
The clients requested a secluded bedroom overlooking the garden. Brown gave their room—and most walls in the house—storefront-style fixed glazing with operable hoppers below. A pair of pivoting aluminum-clad doors enforces privacy. Beyond is a wooden soaking tub.

"The clients requested a secluded bedroom overlooking the garden. Brown gave their room—and most walls in the house—storefront-style fixed glazing with operable hoppers below. A pair of pivoting aluminum-clad doors enforces privacy. Beyond is a wooden soaking tub.

built environment
Brown’s simple design allowed for straightforward construction methods. The house rests on a network of grade beams that are built up above ground level with concrete block. Floors rest on a concrete slab that cantilevers beyond the stem wall, producing the "floating" effect. Walls and exterior columns are concrete block with a stucco surface, and large openings are composed of storefront-type glass systems. Pre-engineered trusses support the roof, which is clad in flat concrete tile.

In the reductive manner of the house, the design team focused on concealing service elements. Cabinets are tucked neatly beneath counters or incorporated in thick walls rather than applied to the surface. Brown and interior designer Richard Geary took pains to limit openings in the ceiling. They consolidated supply and return ducts, stereo speakers, and attic access doors behind wooden screens at each end of the living room. To keep the ceiling uncluttered, they chose primarily wall-mounted lighting.

Brown developed a theme of pivoting and sliding doors throughout the house. They range from the simple slider that closes off the powder room to a pair of aluminum-clad doors that pivot on steel rods to enclose the owners’ suite.

“When opened, they become objects in the landscape,” she says. “We tried to make the minimum number of moves.” Which displays an economy typical of nature’s way.

Vernon Mays is editor of Inform, the architecture and design magazine of the Virginia Society AIA.
The home's aluminum-framed front door, designed by Brown and Geary, is subdivided in a pattern inspired by Mondrian's geometry. A slate path passes the threshold and continues to the living room—yet another indoor-outdoor connection.

project:
Private residence, Naples, Fla.
architect:
Andrea Clark Brown Architects, Naples
builder:
Carlson Harris General Contractors, Naples
interior designer:
Richard F. Geary Interiors, Naples
landscape architect:
Christian Busk, Naples
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an old rhode island farm
grows a new homestead
for a family of three.

by susan bradford barror

Architect James Estes reinterprets historic New England building forms in this shingled cottage near the Rhode Island coast.

Photos: Michael Mathers
Down an old road and up a winding drive is a cottage half hidden by cedars, home to a couple and their 12-year-old son. Their land is 2 1/2 acres of an overgrown farm, bounded by trees, crumbled stone walls, and a few distant neighbors. No wonder the farm was abandoned: It sits on the kind of dense, mucky clay that forms unwanted ponds in a rainstorm.

With such inhospitable soil, where to put the septic field? That issue shaped the home’s design. Architect James Estes and builder Walter Pilz designated a large, flat area for a leaching field, and raised it three feet above grade. The resulting lawn became the organizing element for the house.

Simple gifts
The clients wanted to live simply: no unneeded rooms, tacked-on moldings or frivolous details. They preferred natural materials that would weather well. Their previous house was old, with small rooms. So they asked Estes for open, loftlike spaces that would bring a hint of urban living to their woodland home. And the wife, a sculptor who works from home, requested a studio.

Estes’ program for the 3,500-square-foot house builds on an L-shaped footprint that embraces the south-facing lawn. Living and dining areas open to a terrace through French doors flanked by glass. The living room, which forms the core of the house, is crowned by a vaulted owners’ suite. Two projecting sheds, as Estes calls them, form the legs of the “L.” One houses the dining area and kitchen. The other contains a spacious studio with secondary bedrooms above; it cants 10 degrees off a right angle for maximum sunlight exposure. Ceilings throughout the first floor are a lofty 12 feet high.

Nature of materials
Only one slender wall interrupts the 45-foot-long living/dining/kitchen wing. To support the long span, Estes turned to a product he had never used before: parallel strand beams. And he left their factory-formed texture exposed.

It seems an odd choice in a house whose very identity derives from natural materials. But Estes explains, “It would have been difficult to find timbers to span the space. The Parallelams® met the required spec.”

Having field-tested the product, so to speak, he says he’d gladly spec them again.

Estes used time-honored materials for the home’s exterior: untreated cedar shingles, wood, and stone, which have braved the elements on Rhode Island vacation houses for more than a century. “The materials and the forms we used—sheds, gables, hips, the dark green roofing and trim—are common to our coastal area,” Estes says.

His design program captures the simplicity of those familiar New England forms, while neatly avoiding any stylistic label.
the clients wanted to live simply: no unneeded rooms, tacked-on moldings, or frivolous details.

**project:**
Private residence, Rhode Island

**architect:**
James Estes and Co. Architects, Newport, R.I.

**builder:**
Darlington Home Builders, Providence, R.I.

**landscape architect:**
Martha S. Moore, Landscape Architect, Tiverton, R.I.

Primary living areas orient to outdoor views. Exposed parallel strand beams span the central living space. Estes hid the kitchen clutter behind a half-wall of sandblasted glass block.
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Circle no. 23
spotlight on residential lighting
page 68
A-lamp incandescent bulbs—General Electric; controls—Lutron Electronics.

page 70
(top) under-cabinet lights—low-voltage halogen Dink Lights by CSL; hanging accents—12-volt halogen Lyte Jack with cobalt blue dome by Lightolier; recessed downlight—Lightolier; exposed task lights—Lasso 30 by Lightolier; (bottom) task lights—Snake Lights by Dunsford.

page 71
AR111 adjustable accent lights and A-lamp wallwashers—Iris Lighting Systems.

page 72

page 73
(top) accent lights—Wac Manufacturers; (bottom) reading light—Osram Sylvania.

page 74
track lights—Lucy/5’2” stem with TW-1 cable mounting hardware, both by Flos; cable system—Twin Rail Track by Translite Lighting Systems; switches—Diva by Lutron Electronics.

garden of earthly delights
page 79
siding—masonry and stucco; roofing—concrete tile by Life Tile; windows—Efco; doors—custom by Aluminum Specialties; floors—maple quartersawn and Vermont green slate; exterior fireplace—Superior; range—Gaggenau; refrigerator—Sub-Zero; dishwasher—Miele; kitchen cabinetry—custom by Baker Cabinetry.

field work
page 86
siding—red cedar shingles; roofing—CertainTeed; windows/doors—Marvin Windows & Doors; fabricated structural components—Parallam by Trus Joist MacMillan; floors—oak strip; fireplace—site-built masonry; lighting—Leucos and Lightolier; kitchen cabinetry—Fieldstone; kitchen counters—Surell by Formica.

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Circle no. 24
tech lines

imaging is everything

when it comes to design and presentation, a digital image is worth a thousand line drawings.

by rich binsacca

When Palo Alto, Calif., architect Terry Beaubois, AIA, showed his clients a digital rendering of their custom house during the early design stage, they thought he was showing them a photo of a home already built. “They kept asking where this house was,” says Beaubois. “I had to deconstruct it in front of them to prove it existed only on the computer.”

The art and architecture of digital imaging combines dimensionally rendered CAD models, photography, textures, shadows, landscape features, and other details to create a single, computer-generated image. It is quickly (and affordably) becoming an effective design and presentation tool for architects. It allows them to present realistic interpretations of their designs and to make changes based on client feedback.

how it works

The technology is fairly simple, intuitive, and relatively cheap when balanced against the benefits. Costs run about $3,200 for adequate hardware (including a scanner) and another $800 or so for software, assuming you already have CAD software and a color printer.

Most CAD programs with dimensionally rendering capability can provide an image of the building, often with a high measure of finish detail. The CAD image is converted to a compressed, transferable, and cross-format graphics file (such as a tagged-image file format or “TIFF”). It is moved into imaging software such as brand leader PhotoShop by Adobe (version 4.0) and Kai’s Powertools, then integrated with scanned photographs of the parcel being developed.

Once in the imaging program, an architect can manipulate the design further by “layering” features, details, shadows, and color intensities from a palette provided in the software. The layers build the picture for presentation and articulate specific design requests, like a stucco facade texture or dark slate on the roof.

The technology also can enhance interiors with scans of real images and textures: granite on the kitchen counters; the client’s artwork on the living room walls; 12-inch Mexican tiles in the foyer. And architects may create custom textures from the software’s palette. “The ability to add texture and play with line and color intensities puts artistry back in architecture that’s missing with straight CAD work,” says Kevin McKee, AIA, principal of Kevin McKee Associates in Boise, Idaho. “You can avoid making the house look pasted onto the landscape.”

As stand-alone files, each layer can be peeled away and changed without having to rebuild the entire image. In PhotoShop, for instance, each layer is displayed in thumbnail for easy reference.

hardware and software

The layering and image manipulation techniques build up a pretty hefty file, however—perhaps 10 or more megabytes (MB), which can slow the process as the image gains complexity. “It can be a memory hog,” admits McKee, who operates PhotoShop on a PowerMac with a 64 MB processor and stores continued on page 96
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works in progress on Zip™
disk instead of his hard
drive. “The time it takes to
make changes can be a
problem.”

Most imaging software
works in both Macintosh
and Windows. Loading and
using it will likely require a
check of available memory
(RAM) and perhaps a hard­
ware upgrade, if only to a
portion of your existing net­
work. Today’s imaging
software works best with
32 MB RAM and a 100-plus
megahertz processor (cur­
rently the standard spec for
most desktop machines),
which provides adequate
speed and memory. For
PCs, a Pentium processor
is a must.

“the more clearly
the picture can be
presented, the less ... problems down the road.”

—patrick sutton, aia

client benefits
Given the variety of rela­
tively affordable choices,
the decision to digitally
image may come down to
client service and marketing
needs. Patrick Sutton, AIA,
principal of Patrick Sutton
Associates in Baltimore,
views the technology as
both a communications and
a production tool. “The
more clearly the picture can
be presented to clients, the
less ambiguity and prob­lems down the road,” he
says. “You’re not exposing
yourself to their disap­pointment.” Digital imag­
ing allows Sutton to make
changes on the fly or dur­
ing meetings, freeing more
time to produce accurate
working documents for
construction.

The ability to make
quick changes also benefits
the in-house review pro­
cess. It allows an archi­
tect to see and change details in
the context of the actual
setting (not just on a line
drawing) before the image
ever reaches the client. “I
only show my clients what
I did after it pleases me,”
Beaubois says.

From the clients who
thought he was showing
them an already-built
house, Beaubois was able
to solicit and incorporate
feedback as he showed
them how he digitally
“built” their home on
screen. “The final version
was considerably different,
but the immediate feedback
shaped weeks off the de­
sign and review process,”
he says, noting that his
clients started asking for
more detail once they real­
ized his capabilities. “It
just proves how inadequate
we were at conveying the
information in the past.”

The technology has ben­
efits beyond face-to-face
interaction with clients.
Digital images transfer easi­
ly to printed media such as
ads and to electronic for­
mats like the Internet. Sut­
ton, for instance, sent a
Zip™ disk with a
QuickTime VR (virtual
reality) “tour” of a project
to a client as a status report
and to solicit feedback. And
Beaubois uses a Web site to
post stages of design devel­
opment for client review.

As a practicing archi­
tect, a member of Boise’s
downtown development
council, and an alumnus
of the city planning and
zoning commission,
McKee sees digital imag­
ing being used—and
demanded—as a way to
help gain approvals for
development. “You can
incorporate a subdivision
street layout or an empty
parcel for a commercial
project,” he says. “It opens
up a lot of possibilities.”

continuing
education
To architects like McKee,
the possibilities seem end­
less. He has learned Photo­
Shop by trial and error since
purchasing the software two
years ago. “I haven’t taken a
class, but I’d love to,” he
says. “I’m sure there are lots
of things it can do that I
don’t know yet.”

Sutton is just 18 months
removed from an all­
manual practice. Already
he’s knitting together a
series of panoramic photos
with his CAD models to
create virtual tours. “It’s
like an addiction,” he says.
“When you see the capa­
bility, you just want more
and more.” Both Sutton
and McKee say they’re
looking at digital cameras
that download photographs
directly to the computer.

Even Beaubois, who’s
plugged in as a Beta tester
and consults with nearby
Silicon Valley software
makers, considers his
expertise—and the indus­
try—in a state of transition.
“It’s just the beginning,
like those blurry, black­
and-white images that were
the early photographs,” he
says.

Rich Binsacca is a
freelance writer in Boise,
Idaho.

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**Doctor Spec**

**Metal Urges**

Metal tile roofing is a lightweight alternative to clay and concrete. The price is right, too.

By Larry J. Vesely, AIA

Or homes that can't bear the weight of clay or concrete roofing tiles—or where high winds or fires are a concern—my firm uses metal "tile panel" roofing. It combines the popular look of Spanish tile with the light weight and high performance of metal roofing systems.

The price is right, too. Metal tile panel systems average about $350 a square (10 by 10 feet) installed. By contrast, concrete tiles are about $500 a square installed, while clay tiles start at $700 a square.

Metal tile panels perform well in all climates. Here in California, they offer a fire- and pest-resistant alternative to wood shakes. The panels are made from recyclable steel, typically 26 GA thickness. Since they weigh only about 125 pounds a square—one-tenth the weight of some clay tiles—they are safer in high winds and during earthquakes. They are also popular in golf course developments because the panels don't break when errant golf balls "hit the roof."

Several manufacturers offer metal tile panel systems. The panels vary in size, material, profile configuration, and installation characteristics. We prefer long panels (20 feet long by 3 feet wide) that apply vertically from eave to ridge using screw fasteners rather than nails. We also prefer panels that install directly over a wood deck or purlins with no need for a batten grid underlayment. This makes installation faster and more weathertight. Panels of this design tend to carry the highest wind ratings—as much as 230 mph—making them ideal for hurricane-prone areas.

Today's paints offer colors not available in conventional tiles. They are colorfast, durable, and low maintenance. Some are water-based, which appeals to the ecology-minded.

In the future, we expect to use metal tile panels more frequently with steel framing, since both offer similar performance advantages. The panels also have the potential to reduce substructure costs because of their light weight, particularly in large multifamily and commercial projects. The savings can be used for decorative elements or other interior amenities.

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**Metal Tile Roofing Sources**

- Carter Holt Harvey Roofing, Arlington, Texas, 1.800.258.9740
- Custom-Bilt Metals, South El Monte, Calif., 626.454.4844
- Met-Tile, Ontario, Calif., 1.800.899.0311
- Scandinavian Profiling Systems, Mangonia Park, Fla., 1.800.248.6955
- Steel Tile Co., Thornton, Ontario, Canada, 705.436.1723
- Tile Master Roofing Systems, Mississauga, Ontario, Canada, 1.800.461.3805

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under cover

two modernist metal canopies marry the utilitarian and the refined.

by rick vitullo, aia

modern architecture

has been called a
marriage of sci-
ence and art in the
built environment, where the
beauty of a building or detail
comes not from applied ornamen-
tation but from simple elegance.
Within that broad definition are
many interpretations based on
national or regional context,
available materials, and personal
ideology.
The canopy details shown here
illustrate applications of a mod-
ernist aesthetic by two architects
using subtly different means.
Both designs celebrate their
structural support as a thing of
beauty in itself, not to be hidden
behind a decorative front.
Lake/Flato Architects in San
Antonio has developed a signa-
ture detail that is both utilitarian
and refined: a window and door
canopy to keep out the brutal
Texas sun. Plain galvanized-iron
pipe and clamps support the
canopy, which Lake/Flato typi-
cally juxtaposes with natural materi-
als such as stained wood, stone,
and galvanized steel roofing.
The result is a striking contrast
between the utilitarian pipe and
the inherent richness of unem-
bellished natural materials. The
architects also use off-the-shelf
pipe for other details such as
kitchen pot racks, towel bars,
and table legs.

continued on page 102

These two canopy
designs take different
modernist approach-
es. Lake/Flato's
canopy (above) is a
lightweight metal
canopy supported
from below. Its utili-
tarian design draws
inspiration from can-
vast storefront
awnings; its primary
function is sun shading.
Patrick Sutton's
canopy (left) is sus-
pended from above
by elegant stainless
steel struts. It is
designed to deflect
the elements—snow,
rain, and sun.

Illustrations: Rick Vitullo
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Lake/Flato refined the canopy design with a structural engineer so that it uses the least amount of material possible. The standing seam roofing material sits on 2 x 4 sleepers without roof sheathing. (Snow loads obviously are not a concern here.)

Architect Patrick Sutton's canopy looks deceptively delicate. Designed for a house in the Baltimore area, it protects against heavy rain and snow. Sutton's canopy gains its strength from the simplicity of its elements, and the use of rich materials such as lead-coated copper roofing, Douglas fir soffit, and stainless steel struts. These struts support the canopy body with pin connections bolted to the facade from above, allowing totally clear space below unencumbered by posts or struts. The canopy itself features 1/2-inch CDX plywood sheathing over a 2 x 6 at 16-inch on-center joist structure. Yet it remains relatively thin in profile and, with the slim structural struts, appears as a delicate membrane holding back the weather. 

Rick Vitullo, AIA, is founder and principal of Oak Leaf Studio Architects, Crownsville, Md.

Sutton's canopy attaches to an exterior insulation and finish system (EIFS) surface, so mounting the strut to the wall was a design issue. Blocking builds out to the EIFS and ties to the structure, allowing the faceplate to mount directly on the surface.
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When I think of a building or place that inspires me, my thoughts turn to Montezuma Castle. Seemingly nothing more than a large pile of adobe, it possesses a magic that defies its simplicity. Its straightforwardness is a great relief in these days of over-complexity. It has an appropriateness that reeks of practicality, yet it masterfully transcends the mundane.

The building is designed in a way that enhances the natural beauty of the surrounding rock and in turn is enhanced by that rock. Adobe is a perfect choice for the dry Southwestern climate. The placement of the dwelling allows the winter sun to penetrate but blocks the summer sun when it rises high in the sky.

The castle is so simple, yet so perfect in its response to providing dwelling for a people in the harsh desert environment.

—Susan Maxman, FAIA

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