residential architect

A HANLEY-WOOD, INC., PUBLICATION / JULY - AUGUST 1998

tigerman : mccurry

new density solutions / working with wood /
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*our apologies to Joyce Kilmer

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Rome is music to the eyes and ears of residential designer Stephen Fuller.

Cover photo: Paul Elledge
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Circle no. 14
best of both worlds

are greenfields greener pastures? a look at the state of suburbia, and a toast to *residential architect’s* first year.

by susan bradford barror

It used to be so simple: America had its city dwellers and its country folk. In much of the world, that model still holds. Read, for instance, the postcard from Helsinki on page 30.

But greedy people that we Americans are, we began to want the best of both worlds. Voilà: suburbia.

megalopolis?

A hundred years later we have our yards, our gardens, and our white picket fences. But we also have traffic jams and sprawl, that has spawned that dread disease called megalopolis.

Developers look longingly at green acres just beyond the current suburban fringe—in brand-new suburbs, but ultimately chose a middle-aged house in an established neighborhood. Why? Because it offered their family the best of both worlds. The trees were big, the lawns were green, and the nearby stores and restaurants were among the best in the Washington, D.C., area.

or the infill alternative?

Not everyone can find—or afford—a house in a desirable older neighborhood, however. Thankfully, a growing cadre of developers sees the benefit of building new homes in existing communities. Rather than leapfrog to the next greenfield, companies like The Holladay Corp. of Washington, D.C., are looking for infill opportuni-

the challenge for architects is to deliver density in a package that’s attractive to wary citizens.

“greenfields,” in today’s parlance—so ripe for new construction. But where does it end? Fly at night from Los Angeles to San Diego, and the lights on the ground twinkle without interruption from airport to airport.

In the May/June issue of *residential architect*, then-editor Boyce Thompson spoke eloquently of his family’s decision to move to greener pastures. He and his wife looked at brand-new houses architectural to its surroundings, but it must foster a sense of community often lacking in large-lot suburbia.

In this issue, we look at new neighborhoods by CHK Architects and Planners and MacDonald Architects that bring innovative density solutions to cities on both coasts. Place-making is a topic we’ll continue to address often in the future. We hope you’ll share your best community planning and design work with us in the months ahead.

pop the cork

Speaking of the future—*residential architect* celebrates the start of its second year with this issue. Thanks to all of you who used our reader survey (“tell us what you think,” March/April, page 36) to send us your thoughts about the magazine. You’ll see your suggestions put into practice in upcoming issues. Help us keep up the good work by continuing to send us your projects, story ideas, and comments about the magazine.

Thanks also to our editorial advisory board, whose members have guided us from the start and continue to share their insights and ideas on how to make *residential architect* better.

And finally—a champagne toast to the team at Hanley-Wood, Inc., for the dedication and enthusiasm they give to producing each issue of the magazine.

Happy new year! ra
kudos

Congratulations on your new periodical. I think it has a great future. I have already written to Architecture magazine warning them that you will probably eat their lunch unless they wake up. Your publication is close to being the bridge that practicing architects need.

The October issue was better than the premiere issue (June) as it avoids what should be rigorously avoided in the future: the kind of kitsch that periodical appears in your ads. These ads give a somewhat bad odor to the whole publication, which is unwarranted by the editorial content. Also, please spare us the self-indulgent “b.s.” of the Barry Berkus kind and spare him the embarrassment.

Andres M. Duany, FAIA
Duany Plater-Zyberk & Co.
Miami

We enjoy residential architect. We work hard to design houses that respond to sites and clients, and cling to ideas about craft, so we particularly enjoy projects of that type in your magazine. Seeing some smaller projects is encouraging to us and to potential clients who wonder if an architectural process is possible. It’s nice to see lots of advertising, too—looks healthy. It’s a great start from our perspective.

Dail Dixon, FAIA
Dixon Weinstein Architects
Chapel Hill, N.C.

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Circle no. 7
Congratulations on a successful and much needed addition to the periodical libraries of architects and builders across the country. I have read the first issues thoroughly, enjoyed them, and continually refer to them for product information, and, of course, for informative articles.

Mark S. Orling, AIA
Alexandria, Va.

My compliments on the quality of your magazine—both form and content. As about 25% of my practice is residential architecture, it is nice to finally have a forum for ideas devoted solely to residential architecture and written from an architect’s perspective.

Jon Chew
Jon Chew & Associates
Via e-mail

Thanks for the new magazine devoted to residential architects. I hope residential architect doesn’t become just another magazine like Custom Builder or Professional Builder, which cover “movie-set architecture” and artificial quests for architecture that express our “traditional values.” I would like to see an emphasis on architecture for the 21st century.

Why the general public can’t accept modern architecture when they can accept modernity in other areas of their lives is an anomaly. My automobile has none of the frills of the Victorian coach, why should my architecture.

Let’s face it, much of what is built today is artificial and contrived. What happened to “form follows function” or “honest use of materials and methods of construction,” or “organic architecture”?

Modern architecture, as it was evolving, empha-

continued on page 16
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Circle no. 98
Michael Imber "emphasizes architecture and the process of design" in this house on the 1997 San Antonio AIA home tour.

sized the philosophy of building—not styles. It emphasized learning how to build and how to be relevant to our time and place. It was something that architects of the 18th and 19th centuries had forgotten. Their emphasis was on historical style that had no relevance to our technological advances. As I learned in my college history classes, architecture was a reflection of the social, economic, and political ideas of that time—and to that we should add technological advances.

As architects, we should be more than fashion designers and hair stylists who happened to get an architectural degree. We should point the way for the general public and not shape our architecture according to the latest poll. Our "traditional values" should be embodied in an architecture that reflects the free spirit of this nation and its democratic tradition.

Philip Lembo
Philip Lembo Architects
Palm Harbor, Fla.

expounding on a point

The May/June issue is excellent. I especially enjoyed "The Path Less Traveled," by Donald A. Gardner, AIA (Perspective, page 36). However, I did miss my favorite part of the magazine, Letters. Also, I would like Michael G. Imber, AIA, to expound on his comment: "It let the public see what we as architects do, as opposed to residential designers." ("San Antonio Style," Home Front, page 20.)

James C. Lucia FAIBD
Lucia Custom Home Designers
Winter Park, Fla.

michael G. Imber replies:
My comment referenced the other homes tour in San Antonio presented by local custom home builders—an event where prepackaged floor plans can be transformed to the latest fashion, be it French country or Mediterranean, by merely changing the materials.

An AIA homes tour afforded architects the opportunity to emphasize architecture and the process of design. Homes are designed by architects working to resolve the specific needs of their clients. Without predesigned plans, the architect has provided his or her client with a process that will result in a house that is a reflection of the tastes and desires of its owners. From the layout and sequence of spaces to millwork details and fixtures, all elements reinforce a general concept that gives the client a unique house that is appropriate to his or her particular lifestyle. RA

redlines

In the article "Southern Comfort," by Nora Richter Greer (May/June), the caption for the photograph on page 63 incorrectly identifies Richard Gibbs as the architect of the middle carriage house. The architect is Mackey Mitchell Zahner Associates/HNTB.
Molded Wood Fiber Doors

BEAUTY. DURABILITY. LOW MAINTENANCE. Homeowners expect a lot from their doors, from the entryway to the garage and every passage door in between. Choosing the highest quality molded wood fiber doors can help builders meet clients' expectations and provide an important value at the same time.

Molded wood fiber doors have earned their place in the largest segments of the housing industry because they are consistent, trouble-free products. In fact, they are found in more than 40 countries and annual usage exceeds 50 million units worldwide. While the manufacturing of the one-piece “door skin” involves an exacting formula of heat and pressure, the result is simple: an easy-to-care-for door with the look of solid wood panels. The door skin is bonded to one of several frame options: wood, MDF or a combination of the two. Depending on your application, there are several core options to consider, including solid core particleboard or high-density polystyrene to provide the optimum in energy efficiency.

Interior doors are available in various combinations of panel styles, divided lite options, textures, and some with prefinished decorative overlays. It is simple to match any home's character. And because molded wood fiber doors can be painted or stained (with a little more effort) flexibility has never been greater.

Advanced production techniques and strict testing procedures paved the way for the next generation of molded wood fiber doors. Exterior applications—both entry door systems and garage door units—are being installed at an exceptional rate.

Especially noteworthy is the Elite Alterna because it is the first of its kind—an entry door that combines the best features from steel, wood, and fiberglass. The beauty is obvious to the eye and to the touch, and the remarkable surface stands up to the toughest elements. It resists warping and buckling because of its sturdy laminated veneer lumber rails and stiles. Superior insulating ability from a polystyrene core exceeds energy code requirements. Because it can be painted or stained, and is available with an endless variety of glass inserts, it complements any home's exterior.

The garage door is often the closest point to the curb, and can reveal a lot about a home. Unfortunately, they are particularly susceptible to abuse, from protruding car bumpers to toddlers on trikes. So it's important to choose the door wisely. Unlike steel doors, molded wood fiber garage doors do not dent, crease or rust. And a weather-tight seal means improved insulation for the otherwise drafty garage. Be sure to choose garage doors that can be trimmed to a specific size at the job site for a perfect fit every time, such as the Elite garage door.

Because of the proven success in the molded wood fiber manufacturing process, you can find products in this category backed by a five-year warranty. Don't settle for less.

For more information on molded wood fiber 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 handling, installing and maintaining Elite molded wood fiber doors.
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Circle no. 222
The client wanted a vacation house with a modern take on traditional materials—especially wood. Palatine, Ill., architect Edward Shannon delivered, walking off with a 1997 AIA Northeast Illinois honor award in the process. He had an unusually close working relationship with these clients. They’re his parents, and they own a Chicago-area lumberyard.

“The premise was to glorify wood and wood construction,” says Shannon, whose own Modernist preferences come across in the home’s bold geometric forms and red steel pipe railings. Organic exterior materials—cedar, glass, and fieldstone—link the 3,475-square-foot house to its wooded lakefront site in Sister Bay, Wis.

Shannon located guest bedrooms on a walk-out level below the main living area. The owners’ suite occupies a private aerie on the top floor. The two upper levels enjoy spectacular views of Lake Michigan.—Meghan Drueding
little house on the prairie

"m ost low-income housing in Lawrence is pretty grim," says Professor Dan Rockhill. Not the home designed and built by eight of his students at the University of Kansas School of Architecture in Lawrence, Kan. The 1,330-square-foot house features traditional local design elements such as a broad south-facing facade for maximum winter sun exposure and a large roof overhang for shade during hot Midwestern summers.

To cut costs, the students chose affordable materials such as Crezan board (a commercial plywood) for siding and Trex, a recycled-plastic composite, for window surrounds. A $62,000 community development block grant from the city of Lawrence paid for materials, subcontractors, and electrical engineering. The city sold the home to a qualified low-income applicant for $75,000. The project won second place at the Structural Board Association’s Global Home 1998 Student Design Competition. See page 28 for the first-place winner.—M.D.

conferences and competitions

technique of traditional neighborhood development
september 15–18, 1998
seaside, fla.; $600

Sponsored by the Seaside Institute, which promotes traditional neighborhood development (TND) through cultural and educational programs, the workshop will focus on principles and techniques of designing and building new TNDs. Speakers will include Andres Duany, FAIA, of Duany Plater-Zyberk & Co.; Robert Davis, president of the Seaside Community Development Corp.; and Phyllis Bleiweis, executive director of the Seaside Institute. Contact the Seaside Institute at 850.231.2421.

homes for habitat design awards
entry deadline: september 1, 1998

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Sponsored by residential architect, APA—The Engineered Wood Association, Premier Building Systems, and Klima-Tite (a division of Reliant Building Products). Contest judges include Vila; Susan Maxman, FAIA; Nevil Eastwood, Habitat for Humanity; Randy Luther, Centex Homes; and Jim Tracy, Premier Building Systems. Call 202.736.3407 for entry information.
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freedom of choice

Ladera Ranch is the latest buzz in Orange County, Calif. The 4,000-acre planned community will feature five villages, each with its own architectural theme. William Hezmalhalch Architects has developed nine distinct design programs: Cottage, Craftsman, Spanish Colonial, California Ranch, Monterey, American Farmhouse, Prairie, Traditional, and Italianate.

Each of Ladera Ranch's villages will consist of several smaller neighborhoods of 50 to 60 homes, according to the master plan developed by the land planning team of EDAW and Land Concern. At build-out, the community will contain up to 8,100 dwelling units. Grand opening of the first village is slated for next spring, reports Rancho Mission Viejo, the developer.—M.D.

border lines

Anderson Hardwood Floors' new Pizzazz™ ornamental borders replicate the look of inlaid and hand-painted wood at a fraction of the price. The prefinished maple planks come in three patterns—fruit, Greek key, and diamond. Colors and textures fuse into the finish through up to six coats of aluminum oxide-impregnated polyurethane, producing a commercial-grade wear surface. Anderson warrants the finish for 10 years against wear-through in residential applications.

The Pizzazz™ border planks are ½-inch thick by 5 inches wide by 39 inches long, and are grooved on all four sides. The fruit border is multicolor. The key and diamond patterns are available in spring green, hunter green, dark red, royal blue, and charcoal. Planks in the key pattern can be combined to create custom border designs. The suggested retail price is about $12 per linear foot. For more information, contact Anderson Hardwood Floors at 864-833-6250 or www.andersonfloors.com.—Susan Bradford Barror
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For a free copy of the Elite® garage door brochure, call 1-800-877-9482, ext. HWG
a two-bedroom courtyard house won first place in the Structural Board Association’s Global Home 1998 Student Design Competition. Designed by Richard Stewart, a student at the University of Idaho College of Architecture, the scheme offers a simple, cost-effective approach to meeting the contest’s goal of providing quality affordable housing throughout the world.

Contest criteria called for a 1,000- to 1,200-square-foot house that is suited to broad climatic conditions and uses oriented-strand board (OSB) as an integral building material. Stewart wrapped his one-story plan around a trellised courtyard that functions as outdoor living space. Rather than subdivide the living area, he created a flexible, multipurpose room. And he celebrates OSB’s durability and textural quality by exposing it as exterior siding, on the living area ceiling, and as subfloors and finished floors.

Stewart won a $1,500 cash prize for his design, which has been donated to the United Nations Centre for Human Settlements.

See page 21 for the contest’s second-place winner.—S.B.B.

cottage collection

he New Cottage Home is not a textbook for design professionals. It is, frankly, a coffee table book—but one that residential architects will want to spend time browsing through. Written by Jim Tolpin for The Taunton Press, the 232-page book features photos and floor plans of 30 American cottages. The selections date from 1980 to the present, with a heavy focus on coastal New England and the Pacific Northwest. These are cottages in the cozy, rustic sense of the word, and they conjure memories of summer vacations real or imagined. Though the text is written for a lay audience, the photographs alone—all 254 of them—are worth the $29.95 price tag.

Tolpin opens with a brief history of the cottage as a house form, and concludes with a fairly elementary chapter on cottage design and landscaping.—S.B.B.
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Circle no. 233
postcard from helsinki

U.S. architects trying to curb urban sprawl may have a great deal to learn from planners in Finland. "We believe in concentrating employment in the inner city, because the metropolitan area needs a heart," says Eva-Riitta Siitonen, lord mayor of Helsinki. She and a team of city officials—including city architect Mikael Sundman—visited residential architect to spread the word about new urban redevelopment initiatives currently under way in their city.

City living is a way of life in this remarkably homogeneous country, which is largely free of American-style suburbia and urban strife. One million of Finland's 5 million residents live in or near the capital city of Helsinki, most in four- and five-story apartment buildings from which they escape to country cottages on the weekends.

The city is spearheading the new planning initiatives to address the capital's housing shortage. (Developers here rent land from the city for 50 to 100 years). The goals: to intermingle creative architectural design between residences and businesses, and to reduce commuting time and smog by keeping housing close to the city's seven major employment centers.

The former industrial site of Arabianranta, on Helsinki's eastern waterfront, will house a new Art and Design City, a residential, commercial, and cultural development for 7,000 residents. Also in the works is the Vikki Science and Ecological Park, a university neighborhood that will contain a science center and housing that emphasizes ecological solutions in both construction and daily life. Both developments have a projected 20-year build-out.

P.S.: While Finns favor Finnish architects, they chose American Steven Holl to design the Kiasma Contemporary Art Museum. It opened in downtown Helsinki earlier this summer.—Deena Shehata and Meghan Drueding

Arabianranta, a former industrial zone in Helsinki, is being redeveloped into a mixed-use community with housing for 7,000 people plus commercial, cultural, and educational services. A waterfront park will replace the former port facilities. Apartment blocks are grouped around courtyards with views of the waterfront.
When architect Bill Becker redesigned this summer retreat in the Berkshire Mountains, the home's setting provided all the inspiration he needed. He used native wood and stone extensively. Fashioned the front porch supports from 8' logs. And for the north end of the home, which looks out over a lake to the mountains beyond, he created a wall of glass using windows and doors with custom-designed muntins that echo the shape of the surrounding pines. Who did he contact to supply these unique products? Bill Becker's search began and ended with one phone call. To Marvin Windows & Doors.

From Bill's drawings, the company produced three large fixed windows and eight doors, three of which open onto the deck. Marvin's ability to create these custom products inspired similar design elements in the home's interior, including a rustic stairway made from pine logs and branches. Still, as unique as they are, these aren't the only Marvin windows that figured prominently in the design.

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and all the other windows in the home were ordered with low E glass filled with argon; a gas that is 30% more resistant to thermal conductivity than air.

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cause for celebration?

whether it’s a cure for suburban ills or simply another theme park, Disney’s celebration certainly offers food for thought.

by bill kreager, aia

to those of us who live and breathe this stuff, Disney’s new town of Celebration near Orlando, Fla., is a living laboratory for neotraditional planning—a.k.a. traditional neighborhood development (TND) or New Urbanism. My visits there have filled me with questions and observations. Foremost: Is neotraditional planning a solution to faceless suburban sprawl? Or is it just a “pretty” alternative, and a costly one at that?

visiting celebration

I enjoy “kicking the tires” of my peers’ work. So you will understand my delight when I was invited to speak at a design symposium sponsored by residential architect’s sister magazine, BUILDER, in Orlando, Fla., two years ago. A tour of Disney’s then-new community, Celebration, was a focus of the event. Although the program was exciting, I found it frustrating to visit Celebration before anyone had moved in—it lacked the test of time.

But my delight quickened once again when I learned that Celebration was the venue for the February 1998 meeting of the AIA Housing PIA, with presentations by architects and planners who participated in Celebration’s creation—among them Andres Duany, FAIA, Jacquelin Robertson, FAIA, and Robert A.M. Stern, FAIA.

The meeting’s highlights were the visits to the town, which now sports several hundred residents and a fully tenanted downtown. Our group toured the site en masse and dined in restaurants facing the lake in the town center. But my most intimate visit took place after the conference closed. Another architect and I returned, cameras and notebooks in hand, and “hung out.”

What did we see? Lots of people strolling the village center. Kids on skateboards and bicycles. A wedding reception spilling out onto a broad front porch. Joggers on nature trails. People dining alfresco overlooking the lake. The shops were busy, and appeared to be profitable. (The Disney subsidy must help.) Park benches were full of readers, gossips, and lovers.

thumbs down

So much for outward appearances. What isn’t working at Celebration is the isolation of the village center. The retail core is locked in a half crescent around one side of the lake, invisible from anywhere off-site. Neighborhoods are only a five- to 10-minute walk away, but they, too, are hemmed in by a freeway and protected wetlands. A 360-degree relationship between shops and housing would have assured easier access for residents and visitors alike.

A key tenet of New Urbanism, the symbiotic relationship between communities and mass transit, appears to be missing here. So too is a New Urbanist integration of land uses. At Celebration, it’s a long walk (but an easy drive) to the closest big box retailer, hospital, and high-design office towers. Antithetical to people-friendly TND planning, these complexes float in sterile plazas or seas of parking.

continued on page 36
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The town lacks a broad socioeconomic mix. It is my understanding that Walt Disney originally intended the community to house Disney World and Epcot personnel in an idyllic, planned setting. But few Disney employees can afford the cost of a house in Celebration, and must instead content themselves with lower-priced homes in standard suburban enclaves along the freeway.

Then there are the residential planning forms. Different housing types are isolated in clusters unto themselves, with interlinking streets and alleys that preserve neighborhood character. More problematic is a long crescent of townhouses à la Bath, England, which thrusts outward from the village center. It goes nowhere, its bulk is out of scale with its neighbors, and it creates no interesting public spaces.

Nor am I thrilled with Celebration’s restrictive “build our style of architecture or you can’t play” design standards, or the Miss America Pageant of “look at me” public buildings parading along the main boulevard. Their gifted architects should have known better.

**thumbs up**

Ahhhh! But when Celebration shines, it shines brilliantly!

Most of its public spaces are remarkable. Intimate squares with imported, mature trees and fountains, surrounded by Savannah-inspired townhouses. The lakefront’s broad esplanade. Pocket parks and large axial parks that provide generous recreation space while visually tying the community together.

In fact, public spaces are the heart of Celebration. Each subneighborhood has a park and therefore its own identity. Gazebos, arbors, pools, and landscaping work together successfully. A delightful system of public signage and graphics brings unity and character to all corners of town, and coordinates well with park benches, street lamps, litter containers, and other public conveniences.

The use of public buildings as community icons has returned. Remember the American small town of yore, where regal public buildings held prominent locations along streets and skylines? At Celebration, the marketing center has the tower, a golf clubhouse defines one end of a mall that begins at the lake, and city hall anchors the village center. And yes, a village church is coming soon to the center of town.

Secondary spaces are well thought out and delightful. Charming passages lead to parking lots tucked behind stores, often linking small plazas that serve apartments above the stores. Housing over retail works well here as designed by Robert A.M. Stern and Jacquelin Robertson, who essentially divided the village architecture between them.

It would be easy to criticize the six architectural styles mandated by Disney as being inappropriate for central Florida. But we must remember that this is America, where we seem to have a peculiar predilection toward personalizing our homes with whatever style pleases us. At Celebration, the overall blend is pleasant, the scale generally works quite well, and the residents obviously are pleased with their homes.

**big picture**

I came away from Celebration with more questions than answers.

First: Are TNDs the way to design new communities that meet responsible social, economic, and environmental standards? I believe that many of the movement’s tenets—pedes-continued on page 39
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Perspective

trian focus, mixed housing types, access to stores and jobs—are excellent. But TNDs are not the only answer. Most home buyers still want large yards and two- or three-car garages on the fronts of their homes. They enjoy houses that are similar to their neighbors’ houses, and they find winding suburban streets and cul-de-sacs appealing. They don’t mind driving to distant suburbs to live like this. And all the while, they believe it’s a shame that our farms and 

“it’s a heck of a pleasant place to spend a saturday afternoon.”
—bill kreager, aia

forests are disappearing, and that traffic and pollution are getting worse.

Second: Are neotraditional communities simply “pretty” new suburbs and thus part of the problem rather than a solution? Yes, when you consider that established TNDs like Celebration, Kentlands near Washington, D.C., Laguna West near Sacramento, Calif., and Northwest Landing near Tacoma, Wash., are miles from their urban cores. But viewed from the perspective that they provide homes, jobs, shopping, schools, and recreation in well-planned communities that are as friendly to people as they are to cars, they look pretty good.

Third: Wouldn’t the effort, planning, and funds that created Celebration have been better spent to improve deteriorating urban centers? Certainly, but Disney didn’t own thousands of urban acres.

Finally: Isn’t Celebration really just a theme park? After all, in the real world, what developer can afford to build retail and commercial space up front and then subsidize it? True. Yet we can still critique the town on its merits as a place to live.

does celebration work?
As a community, yes. As the paragon of New Urbanist thought, decidedly not. As the solution to suburban sprawl, no. But it’s a heck of a pleasant place to spend a Saturday afternoon. And isn’t that part of what community life is all about?

Bill Kreager, AIA, is a principal in the Seattle firm, Mithun Partners. His work includes both neo- and nontraditional planning and architecture in the United States and Japan. His firm teamed with Peter Calthorpe in planning Northwest Landing, a TND near Tacoma, Wash., where he was also responsible for the design guidelines and much of the architecture.
waiting for the dough

it pays to get paid. here’s how to deal with clients who won’t ante up.

by sharon o’malley

the most enduring lesson Wayne Garrick, AIA, learned in college came in a single word uttered by a guest lecturer: retainer.

Seventeen years after graduating from New York’s Pratt Institute, Garrick collects 10% of his estimated fee before he starts drawing. As a result, he rarely has to chase residential clients to collect his money.

But late payers are a fact of life—as are occasional clients who don’t intend to pay at all. In fact, small architectural firms write off an average of 2% bad debt a year, estimates Hugh Hochberg of The Coxe Group, a Seattle-based consulting firm for design professionals.

And collecting from deadbeat clients isn’t a chore that architects relish. “Most of us are more interested in design than in the business part of it,” concedes Rosemary McMonigal, AIA, of McMonigal Architects in Minneapolis. “It’s more fun to jump right in and talk about the project with clients than to talk about payments.”

As with any business malady, prevention is the surest cure. So take this advice from those who’ve been through it. To avoid getting stiffed, put the terms in writing up front and include a payment schedule. Collect a retainer. Keep in touch with the client throughout the project. And, if the client doesn’t pay, don’t let it slide.

“If you don’t ask for the money, you won’t get paid,” says lawyer Steven Sherafian of Long & Levit, whose San Francisco firm represents more than 500 architects and other design professionals.

choose your clients carefully

“You can’t do good architecture for a bad client,” says Hochberg. Just as a client interviews an architect, the architect should interview the prospective client. “Tell them you need some financial references and check them,” he counsels. If you don’t like what you hear, steer clear.

make it official

Architects should sign contracts with all clients, even if they are repeat customers, advises Garrick, whose firm, Wayne S. Garrick Architects, is based in New Haven, Conn. “It refreshes their memory about how we work and what we do.” But too many architects skip the formalities, and use a verbal agreement or personal letter to the client instead of a stodgy legal form.

The 1997 version of the AIA’s Standard Form of Agreement Between Owner and Architect (document B141) gives architects plenty of ammunition to use collecting fees from customers who try to wiggle out of paying. For instance, B141 contains a copyright clause that prevents a client from taking an architect’s plans to another designer, mid-project, without paying a licensing fee. The document is flexible, allowing an architect to use just the parts that are relevant to a particular job.

“The AIA contract takes a little time to fill out,” says Michael Hauptman, AIA, of Philadelphia-based Brawer & Hauptman Architects. “And you think it’s going to scare people away. So you write a standard proposal letter, and [the client] signs at the...
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bottom.” But such letters “tend to have tremendous holes in them,” he admits. “They don’t do you any good at all.”

**delinquents and deadbeats**

But what about clients who don’t honor contracts even after signing them? McMonigal seethes when she recalls a client who flat-out stated—after the job was done—that he never pays for professional services. “He told me, ‘I don’t even pay my doctor. Why should I pay my architect?’” she recounts.

That statement landed the client in small-claims court, where he was ordered to pay $3,600—the architect’s fee minus reimbursable expenses. The client even appealed the ruling to a higher court, where he lost again. It took a couple of years before McMonigal saw any of the money. In the end, she says, “the time spent was probably the same as the debt owed.” At some point, says Sherafian, who once trained as an architect, it’s not worth a professional’s time to run after bad debt. “You’ll always have an architect who says that it’s a matter of principle,” he says. “But after you pay [legal fees] three times what you’re owed, principle becomes less of an issue.”

**do it yourself**

There are ways to collect money that are far cheaper than hiring a lawyer and going to court. In fact, one of the most effective—the personal phone call—is free, says Richard Thevenot, executive director of AIA Louisiana in Baton Rouge, which once ran a collections service for architects.

“As soon as clients miss a payment,” he advises, “sit down and talk to them. Ask what the problem is, if they’re having financial difficulties, if they’re unhappy with the work. Don’t make the assumption that the client is trying to beat you out of your money. There are thousands of things that could have happened.”

Nine times out of 10, he says, you’ll be paid in full. A candid conversation may reveal a job-related problem that can be resolved once it’s on the table. Or it may lead to an admission that the client is financially unable to make a lump-sum payment. In that case, suggests Steven House of House + House Architects in San Francisco, the client often will agree to make incremental payments. House recalls asking one client how much he could afford to pay on what was to have been a $15,000 job. The answer was $500 a month. So House accepted a $500 check from the client every month until the debt was paid in full.

**nice guys finish last**

Such a move helped House preserve a client relationship that otherwise might have soured. But sometimes, nice guys finish last. In an effort to keep the peace with a client who had blown off the last payment in the design phase, Hauptman forgave the final bill, hoping to make it up when the client came back for construction documents. The client never returned.

“This is a chronic disease among architects: the fear that you’re going to drive clients away,” Hauptman laments. “In order not to offend them and maintain the relationship, you say, ‘OK, we’ll try to accommodate you.’ As many times as you swear you won’t do it again, you find yourself in the same situation.” Instead, he says, the architect should stand up to the client.

Carey McWhorter, AIA, of McWhorter Architects in Seagrove Beach, Fla., points out that even the most friendly clients are still customers. “As personal a relationship as I may develop with these people, if they become delinquent on a bill, I usually stop work [until they pay],” he says.

Chances are, a client who stiffs an architect will never show his or her face in that designer’s office again, notes Thevenot. “If you don’t resolve the issue, the client won’t hire you again anyway. So you might as well sit down, discover what the problem is, and say, ‘Let’s talk about this.’”

**working it out**

Most often, the problem revolves around a misunderstanding. “Residential clients typically are in this for the first time,” says Hochberg. “So you’re dealing with inexperience. You may define things that your client doesn’t understand.”
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stand, but you may not find out until it’s too late.”

That’s what happened to Hauptman when a client strayed from her low-budget plan to remodel a room atop her garage. She came back and asked the architect to draw plans enlarging both the room and the garage, brushing aside Hauptman’s repeated cautions that the new plan would nearly double her original budget. But when the bids came in, she blamed him for over-designing the project—and refused to pay unless he redesigned it for free. He refused, and she never paid.

It’s the rare residential client who skips out on paying for services rendered. But McMonigal cautions that, like architects, residential clients are protective of their hard-earned cash. “It’s their own checkbook and they’re really close with it,” she says. “It’s a lot different than [doing work for a] big firm where they understand a professional commitment.”

Still, the client’s pain at parting with a greater-than-expected sum can’t overshadow the architect’s need—and right—to be paid for his or her services. Hochberg advises his clients to ask themselves two questions before accepting a new customer: “How much anguish do you go through while you’re waiting to get paid?” How much time do you spend trying to get paid while you’d rather be practicing architecture?” The answers, he says, should lead the architect to lay the financial ground rules up front rather than waiting for a problem to develop.

getting paid

What’s the best way to collect? “Each project, each client, has to be dealt with individually,” says House. And every architect has preferred tactics for turning excuses into cash. Among them:

- call the client immediately. A payment that is one day late should trigger a call from the architect, says Hochberg. Thevenot agrees. “The earlier you [take action to collect], the higher chance you have of collecting it,” he says. “If the party hasn’t paid in four or five months, it’s a serious issue.”

- appeal to the client’s sense of propriety. “In a sense, I’ve embarrassed people into paying,” admits Garrick. He sends late payers a personal note stating that if they believe the invoice is inappropriate, they may pay whatever amount they deem fair. “Usually, they pay in full,” he says.

- don’t delegate, says Hochberg. The architect who did the work is the person who should ask the client to pay. Don’t pass off the unwelcome chore to a colleague. One-and-two-architect shops typically have better success collecting from late payers because partners have personal relationships with their clients. Larger firms write off more bad debt because there’s more distance between clients and principals.

- set up a payment schedule. Often, a client is willing to pay but can’t afford to settle the tab all at once. McMonigal lets clients pay a little each month, with interest. Negotiate the interest rate up front as well as the monthly payment, she advises. Hochberg recommends getting specific when setting up a schedule. “Say, ‘When are you going to send something? How much are you going to send? We need to agree on that,’” he says.

- stop working. When McWhorter doesn’t get paid, he doesn’t work. “I wait for them to call me,” he says. “They say, ‘What’s happening with my project?’ I say, ‘What’s happening with my bill?’ Usually, they say, ‘How much do I owe you?’ and they send the check that day.”

- hire a collection agency. Hauptman was sure he had seen the last of a woman who hired him for a rush townhouse job, for which he charged $1,800. She didn’t pay her continued on page 47
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bill and ignored telephone pleas for payment. So Hauptman hired a collector, whom he agreed to pay one-third of the take. The check came the next day. “It was instantaneous,” he says. “We were sitting in our office and an envelope got shoved under the door. Whoever delivered it scampered away.”

**have your lawyer write a letter.** On the rare occasions when House + House Architects has had to collect from a delinquent client, the firm’s lawyer has gotten speedy results with an official-sounding letter. “All we did was mention the possibility of legal action,” says House. “That’s worked in each case.”

**go to arbitration or mediation.** The results of arbitration are binding and eliminate the need to pursue a debtor in court. Mediation isn’t binding but is often effective. McWhorter calls his experience with arbitration “time consuming.” But he got most of his money from a New York couple who claimed he had overdesigned an apartment renovation to the point where bids were twice what they expected. “The arbitrator basically said [to the couple], ‘You had expensive taste and you didn’t want to pay for it,’” McWhorter says. The edict came after six hours of “grueling testimony,” he recalls, with a concession from the architect to forfeit about 20% of his fee.

**have your day in small-claims court.** Disputes over large sums are rarely handled this way, because many states limit the amount a plaintiff may recover to $5,000 or so. But taking a client who owes a few thousand dollars to court is fairly inexpensive — no lawyers are needed — and it gives the architect a chance to recover at least some of the costs.

**get a lien on the property.** Most states allow architects to make a claim on the property on which they’re working if the owner fails to pay an invoice. Lawyers and architects alike advise this as a way to signal how serious the debt is. If the client still doesn’t pay, the architect can get recourse from the sale of the property, or block its sale.

**cut your losses.** Sherafian says it doesn’t always make sense to pursue a bad debt, because the time architects spend trying to recover the money is time they can’t spend at the drafting table. “Do a cost-benefit analysis,” he advises. “Sometimes it just doesn’t make business sense to go after it.”

Sharon O’Malley is a freelance writer in College Park, Md.
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Stanley Tigerman and Margaret McCurry's feisty practice is a partnership for life.

Stanley is vocal, articulate, unpredictable, and tough-minded. He gave up the commission for a six-story apartment building in Belgrade, Yugoslavia, when he heard news of the rape of Moslem women by Serbian soldiers.

Margaret is equally tough-minded, but with more finesse. She handles most of the firm's residential work, and knows how to deal with the Byzantine subtleties of client temperaments and preferences.

**Working with clients**

The firm's clients come in two types: those who know the language of design, and those who must be dealt with in a more basic idiom. Among the first group are art collectors, academics, and others in some way connected with the arts. With those clients, Margaret talks at the level of ideas, rather than cutting at once to materials and details.

With the others "more has to be done," Margaret says with understatement. "I have to couch my conversations in different terms. You cannot ever tell anyone their taste is questionable. You have to find another language. We make simple models. I'll talk about economizing space by minimizing hallways, or suggesting that a room can have more than one purpose. I talk about budget, or views of nature, or ways..."
to make a room feel good. I’d like to talk pure aesthetics, but it’s not always possible. You might just be setting up your views against theirs.”

Sometimes she backs off, then tries again later. She claims she rarely gives up on an idea if there’s any way to work it out right. But it doesn’t always work. On one house Stanley happened to be working on, the client “kept grabbing the pencil out of his hand and drawing over his drawings—which is a total no-no,” Margaret recalls. “Stanley brought me in when the clients were becoming a bit conservative and felt maybe I should do the house. But they weren’t my kind of people either. They had written this huge half-inch-thick program for their house. Some of it had biblical relationships—even a place for the angels. I thought Stanley could do something with this, because he can take people without much taste and manage to make something extraordinary out of the situation.”

The clients also produced a four-inch-thick notebook of clippings and ideas, none of which showed good architecture. “We should have known right then to walk away because they had no concept,” Margaret says. Eventually, she and Stanley did leave the project.

**am erican style**

In speech and in print, Tigerman and McCurry say they are “committed to the creation of a contemporary American architecture that is characteristic of its own time and place.” Three related terms surface in any discussion with the pair: hybrid, vernacular, and regional. For Stanley, a hybrid American residential architecture weaves together two strains—one ecclesiastical, the other rural—superimposed with regional features.

Case in point: the 1,000-square-foot country house the couple built for themselves and their two children in the Chicago exurb of Lakeside, Mich., in 1983 (see above and right). Its corrugated steel sides, trellised ends, and round porch draw on a uniquely American rural vocabulary. Taken with its outbuildings, it is meant to convey two primal images: of a farm—with a barn, shed, and linked granary—and a church, with basilica, narthex, and attached baptistery.

Yet Stanley rejects the existence of an authentically American house architecture. “It’s rooted in earlier languages,” he says. “America’s a hybrid. I’m not talking about the influences of recent immigration, but the real distinctive American design that
happens once it’s been ‘melted’ into the amalgam of what this [country] is. I’m not placing a value judgment on it, but we’ve lost those clear architectural forces that existed in, say, England or France.”

As for Margaret, a former client with a Ph.D. in Victorian literature has labeled her the Jane Austen of American domestic architecture. Of the analogy, Margaret says, “Austen can write a love story with very little graphic stuff to it, and it will be as potent as reading Henry Miller—without Miller’s explicit sex. She describes the emotions of love, the layers of interrelationships.” Like Austen, Margaret has an eye for the subtleties of nuance and detail that is evident in several of her houses in the rolling countryside east of Chicago.

Most prospective clients come to Margaret never thinking she might suggest a modern house, not realizing that even her traditional-seeming houses have modern sensibilities. “I like working with plain materials; then you have no excuse to do anything but architecture—you cannot hide it behind sensual kinds of materials,” she says. “You can make incredibly beautiful forms out of drywall.”

Given Chicagoland’s heritage of architec-
Wit's End, an 1,800-square-foot country house in rural Sawyer, Mich., is a vernacular hybrid in Tigerman and McCurry's sense of the words. Its design draws on local summer cottage architecture, blended with New England cape forms and the owner's fondness for Federalist-era plantation houses along the Natchez Trace.

...tural innovation dating back to William LeBaron Jenney, Louis Sullivan, and Ludwig Mies Van der Rohe, the pervasive local bias against modern houses seems puzzling. Margaret has a theory. More than 80% of existing housing is traditional, she says. It takes courage for an owner to build a modern house on a traditional street. Its roof may be flat, it may have a lot of glass, and might lack "warm" materials such as wood siding, tile, or brick. It stands out. Many owners feel they don't want to make that kind of statement. Modern houses tend to cost more, too: there are no moldings to conceal construction flaws; flat roofs can be tricky to build properly; big pieces of glass are not small-budget items.

Thankfully, some of her clients with large houses share her preference, rejecting pretentious materials that characterize big houses, such as granite floors and marble countertops. "An element has to look purposeful," says Margaret. "If there's a stone floor, it's a radiant floor or a very practical floor that will take a lot of abuse from children. If it's there for a reason, people don't associate it with pretension or excess."

Not all of the firm's houses are for the well-to-do. Margaret designed several models for Prairie Crossing (June 1997, page 50), an ecologically sensitive community of 317 single-family houses on 667 acres of open country in Grayslake, Ill. The smallest plan is 1,500 square feet. Patterned after historic farmhouses in the area, it is economical in appearance and construction, and comes with a choice of two layouts, an optional porch, and several color schemes.

partnership in practice
Back at the Tigerman McCurry office in downtown Chicago, we talk about their business partnership and *modus operandi.*
Despite their differing styles, “We don’t have a problem,” says Stanley. “We work on separate projects.”

That’s immediately obvious from the office layout. Situated on the second floor of an 1893 brick and timber loft, their drafting space comprises two large high-ceilinged rooms separated by a conference room, resource area, and storage. Stanley’s work station is in one room, Margaret’s in the other. The separation is largely symbolic. They crit each other’s projects. Says Margaret, “I’ll walk through the office, and Stanley will show me a sketch. If I’m stuck on something, I’ll have him look at it.”

Their firm has traveled a long distance on the electronic highway. A dozen years ago, the only computer in the place was an old IBM-XT, which Stanley used to write articles. Today, the staff uses AutoCAD 14.0 and FormZ to create and examine schemes and develop drawings. But the walls are still lined with the great hand-drawn wash drawings that used to be the firm’s hallmark.

As for Stanley and Margaret’s management style, Chris Garvin, a young intern architect in the firm, says: “They give us responsibility early. We are assigned a mix of work. We get to meet with clients. Right now, I’m running three projects.”

When the last story is written about Tigerman McCurry, the scribe of that day will portray a firm that explored architecture in all its manifestations with joy and vigor and a sense of fun. It’s a prolific partnership: well over 200 buildings completed; nearly 800 lectures given worldwide; work shown 225 times at museums and galleries, and published 2,400 times in the media; some 120 awards for design; a range of elected posts on the boards of professional societies and college alumni groups; authorship of several books—from Versus: An American Architect’s Alternatives to Dorothy in Dreamland, an engaging book for children written by Margaret and Stanley’s daughter Tracy and illustrated by Stanley. Stanley also heads, with co-founder Eva Maddox, the Chicago-based architecture school known as Archeworks.

If the firm’s foundation is their married partnership, Stanley’s take on it is this:

“Margaret does work that’s all of a piece. Mine’s all over the lot. People will come in and look at my work, and look at hers. They’ve come with the idea of wanting me, and they’ll end up wanting her. Which is fine.” Margaret’s work is a body of 24 houses, he says, “They’ve had a big impact. It’s not just 24 houses willy-nilly. There is an ideal, a central thought process.”

When clients come to the office, Stanley says, they’re unsure of themselves—they need reassurance. If it’s something familiar they want, they tend to gravitate to Margaret. If they want something different, they go to him. Comments Stanley: “I think it’s a goddamn shame. I keep pushing her to do more daring stuff, but she’s so ordered and classical in her approach.”

It’s a unique partnership, but it works.
When the clients for this 5,000-square-foot house in Hinsdale, Ill., first approached Margaret McCurry, they proposed an unorthodox arrangement. They had been interviewing local builders, they said, and if Margaret would produce just the design documents, they would supervise construction to save on costs. This system had worked for Tigerman McCurry on an earlier house, except that the firm had selected the contractor and done field supervision. Margaret hesitated before committing to an even lesser involvement—and with a builder she didn’t know—but decided to go along because the program intrigued her.

Client requirements

The clients had gotten approval to replace the 1950s brick-and-board ranch house originally on the 101-by-224-foot site, thanks to a new zoning ordinance that permitted a higher floor area ratio. They were eager to respect neighborhood tradition by erecting a house of appropriate form and scale, but with a two-car attached garage. They told Margaret that the garage doors must not be visible from the street, and that she must work with an existing driveway while saving a perennial flower bed planted along one edge.

These requirements posed a dilemma. Hidden garage doors need adequate turn-in radii for cars, and the driveway location was non-negotiable. Given the required side yard setbacks, Margaret had little frontal width for the house itself. Her solution was to make the garage a part of the façade.

Meanwhile, a tricky program called for grouping most of the first-floor rooms around the kitchen with access to daylight, a terrace, and an herb garden. Another requirement was a sanctuary for sewing, ironing, and general household management, which Margaret located to
Gables on a house in Hinsdale, Ill., recall the client's Dutch heritage. A garage is hidden within one of the gabled sections.
the side of the house, overlooking the side entrance and driveway.

With so many rooms on the first floor, the footprint was pushing its allowable limits. So the owners agreed to move their bedroom to the second floor. Should they ever need to move their bedroom downstairs, they can occupy a "swing" room Margaret created by combining the living and dining rooms. This multi-purpose room also serves as a library (the dining table is the reference table).

an american hybrid

Hinsdale was founded as a farming community in the mid-1800s by pioneers following the old Black Hawk Indian Trail. Within this historic context, Margaret designed an American hybrid of a house that reflects both its vernacular heritage and late-twentieth-century sensibilities.

The house reinterprets the historical forms of its traditional English Georgian, French Normandy, and Dutch Colonial neighbors. The owners have strong connections to these influences, says Margaret, who gave the home gabled forms that raise "associational memories" of the wife's Dutch ancestry.

The imbalance between first- and second-floor rooms precluded a simple box. Margaret turned this into an asset by adopting the stepped basilica form once so common among the farm buildings in the area. The plan of the three major first-floor rooms and garage also draws on that form. But the basilica-like spaces are disposed in an irregular order facing all four sides of the house. And windows are not set in traditionally regular patterns, but in a more modern way that reflects the building's interior functions.

The home's twin gables facing the street recall farmhouses nearby, even as they remind Margaret's Dutch-descended client of the townhouses that line the canals of Amsterdam. To bolster the Dutch association, the owners decided to paint their front door Delft blue.—S.A.K.
A single 22-by-28-foot space functions as living, dining, and reading room. McCurry lined the room with built-ins. Crisp white clapboard siding camouflage the garage door.
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new density

there’s high density, and then there’s community. which would you rather design?

density comes in many forms. At its worst, it produces housing that is bleak, bland, and anonymous—the very sort of development that has made density a bad word in so many communities.

Done well, however, density gives us neighborhoods that are vibrant and exciting places to live.

What’s the magic formula? Sensitivity to the surrounding community is one crucial factor. At Whittier Park in Falls Church, Va., shown here and on pages 66–67, CHK Architects and Planners involved the neighbors up-front in planning and design, and took care to link their scheme to the adjacent neighborhood.

Variety and texture are equally important, for they relieve the impact of so many buildings so close together. At Round Walk Village in Petaluma, Calif. (page 68), MacDonald Architects created a colorful community filled with personality and a sense of discovery—at a density of 20.5 units an acre.

Both projects provide gathering places for their residents. And both strike a graceful balance between pedestrians and cars. The result: two new villages that give high density a good name.
solutions

Whittier Park,
Falls Church, Va.

CHK Architects and Planners
Whittier Park's market-rate townhouses average 2,400 square feet and are priced from the high $200s. Options include two- and three-story plans with a choice of attached or detached rear garages, and three-story front-loading plans. The community also has six townhouses for moderate-income buyers.

Whittier Park's in-town location attracts a mix of buyers, from young families to retirees. Streets are 20 feet wide; alleys are 18 feet wide. The 9.5-acre site includes 2 acres of green space.
Infill projects have the kind of livability we can only hope to create in greenfield locations.” So says John Torti, AIA, whose firm, CHK Architects and Planners in Silver Spring, Md., has ample experience designing in both environments. He’s talking about the shops and transportation, restaurants, schools, and parks—not to mention the historic architectural fabric—that typically surround infill sites.

CHK served as both planner and architect at Whittier Park, an infill neighborhood in the Washington, D.C., suburb of Falls Church, Va. The project occupies 9.5 acres that once served as a public school campus. Its plan reflects months of input from local citizens during a design competition sponsored by the city of Falls Church.

“When we met with citizens groups, they asked us to recreate the small-scale character they liked so much in the older neighborhoods of Falls Church,” Torti recalls. His design team responded with a mix of townhouses and detached homes around a 1.5-acre green. The program achieves a net density of 7.5 units an acre.

“The site was the missing puzzle piece in the middle of Falls Church, so our design had to fit into the surrounding community,” says project architect Sami Kirkkil, AIA. Whittier Park’s 13 detached houses face existing single-family homes, while its 62 townhouses relate to neighboring commercial and retail space. The green responds to a city park across the street. Most parking is to the rear, accessed by alleys; guests parallel-park on the street.

Though decorated model homes won’t open until October, builder The Holladay Corp. sold six townhouses from a trailer in the first two months of sales. “And I have a waiting list that’s two inches thick for the single-family houses,” reports community sales manager Maria Lobianco. “People like the alleys and the detached garages. They say it feels like an older neighborhood.”
new density solutions

it takes a village

San Francisco architect Donald MacDonald practices what he preaches. He designs good, livable houses for people who don’t have much money. At Round Walk Village in Petaluma, Calif., his firm has transformed 6.3 acres of vacant land into 129 units of detached rental housing—at a density of 20.5 units an acre—plus a community center. The program is part of Petaluma’s campaign to increase its affordable housing stock; funding came from a combination of city, state, and federal sources.

The houses are a mere two inches apart, a design quirk common to urban housing in the Bay Area. The separation provides the structural independence required by the Uniform Building Code for movement during earthquakes. And, says project designer Keith Rivera, it’s actually cheaper to build detached houses than attached because code requirements for fire and sound attenuation are less stringent. Sheet metal slip...
flashing covers the air space between
the houses. Rivera sheathed the blind
walls with cedar for maximum moisture
resistance in a hard-to-repair area.

The homes at Round Walk Village
range from 590 to 1,200 square feet
and one to four bedrooms; all are
two-story. The community attracts
tenants with large families, so the unit
mix favors three- and four-bedroom
houses. To preserve sound privacy at
such a high density, MacDonald's
firm designed a mix of bedroom-up
and bedroom-down plans.

The program incorporates other
features that mitigate the density. A 1/3-
mile-long concrete walk threads through
the village, giving the community its
name. Parking is distributed throughout
the site in landscaped bays for 20 to 24
cars. Buildings are offset from one
another, which hides the parking and
creates a sense of discovery as one
meanders through the site.

"The kids who live here love to play in
all the nooks and crannies," notes Rivera.
Because the houses are detached, the off-
ssets allow more opportunities for side
windows than would be possible in con-
ventional rows of attached townhouses.

The houses
were site-built using 2 x 4
wood frame construction, which
MacDonald’s firm claims is the cheapest
way to build. Rivera figures construction
costs ran about $60 a square foot (plus
an additional $10 a foot for site develop-
ment). He and his team looked for prefab-
rication opportunities to help keep costs
down. They standardized stair layouts, for
example, so the contractor could mass-
produce identical stairs for every house
in the project. Bolt-on ornaments such
as balconies and flower boxes also were
standardized for mass fabrication off-site.

But the decorative number tiles that
identify each house are another story: They
were handcrafted by disabled artists. RA
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working
You think there’s nothing new to say about this staple of residential design and construction? Wrong. Because, like the material itself, the subject of wood is a living organism, prone to dramatic changes when economic, environmental, or aesthetic climates shift.

Wood is no longer a plentiful commodity, like wheat or steel. It is now viewed in terms of species (17,500 worldwide, in fact). As with animals, a growing number of wood species are listed as endangered, with older members protected from harvest and some even extinct.

The changing resource base for timber products has reduced the availability and quality of all woods, resulting in higher costs. But there are positive results as well. Timbers from old barns, warehouses, and riverbeds are being reclaimed and remilled. And new technologies allow ever more convincing replications of the old wood favorites, using more abundant and less expensive timber species, better finishes and veneers, and non-wood products like plastic and fiber cement.

Ironically, as environmental concerns about domestic and foreign timber supplies increase, so has the demand for wood as an exposed architectural element in housing—from kitchen cabinets to floors, doors, staircases, walls, windows, ceilings, and exterior applications. Virtually across the board, architects and building material suppliers report renewed client interest in using more wood, with little regard for ecological impact.

Given wood’s popularity, it pays to understand what species are readily available, how they perform, and what durable, cost-effective alternatives exist in today’s marketplace.
cedar shingles
Sullivan Gray Bruck Architects used cedar shingles for this house near Columbus, Ohio. Like redwood, cedar is a popular and distinctive material for exterior use. More abundant than redwood and available on both coasts, it naturally resists rot and insects, inhibits ultraviolet rays, and weathers to an attractive silver patina. Water-based acrylic stains protect cedar's natural chemicals from leaching, extending the life of the material and slowing color changes. Cedar can shrink up to 1/4-inch across its face unless it is kiln-dried before application.

white fir
White fir is a stable softwood with a straight grain and fine texture. It is easily worked by hand or machine and accepts a variety of finishes well. Roofs and overhangs provide the best protection from sun and rain.

Lyman Goff, AIA, used this regionally popular and available species for a porch in Rhode Island. Acting as a consultant to the owner-architect, Goff spec'd unfinished, vertical-grain fir for the decking planks. He treated the ceiling planks with a "home-brewed," oil-based clear varnish.

what's available
You can still get clear-heart, vertical grain redwood for decks, Brazilian mahogany for entry doors, and pearwood for paneling—if your client can afford it.

But most timber species are regulated to ensure a sustainable supply. Laws protect virgin timber of even the most common species, like Douglas fir. And several agencies are working to limit demand for endangered tropical woods such as red lauan (so-called Philippine mahogany), Indian rosewood, and teak. These exotic species are available, but only through certified suppliers—and at a significant cost. While the value of imported timber products has doubled in 15 years, the amount of material making it to shore has dropped by half since the mid-1980s.

If you or your client insist on specifying rare woods, you will want to consult the annual Certified Forest Products Council/
Good Wood Alliance directory of certified suppliers and distributors (see resources, page 78). Third-party agencies such as Rainforest Alliance and Green Seal certify suppliers based on forest management practices, production, and delivery to end-users. The directory also identifies types of woods listed by the Convention on the International Trade of Endangered Species (CITES) in an effort to quell demand and illegal harvesting and trade.

But budget-conscious clients may not buy into using wood from certified sources. Lauren Broder, an associate with Conger Fuller Architects (CFA) in Aspen, Colo., has spearheaded her firm’s effort to get more certified wood into its residential projects, but clients are resisting the 1% to 2% boost in built costs. On a recent CFA job, for instance, the firm specified a dozen certified species, from the framing lumber to the trim package. The move added

redwood
Grown and harvested exclusively in managed forests along the California coast, redwood (or sequoia) is a distinctive, popular, and durable softwood for exterior use. It is the only softwood to sprout from its own stump, providing a constant regeneration of the species. More than 90% of all commercial redwood is cut from second- and third-growth forests.

The heartwood contains natural chemicals that resist rot and insects. Vertical-grain heartwood offers superior dimensional stability, with a higher ratio of thickness to width that mitigates cupping (warp across the surface of the board). A semitransparent stain with UV inhibitors and mildewcide is recommended; adding subtle pigment to the stain also extends the life of the treatment.

The redwood deck below was designed and built by Gary Cushenberry for a house in Belmont, Calif.
interior woods

wood alternatives

Pine and maple are domestic softwoods with similar qualities of straight grain, fine texture, and stability. Pine's softness allows it to be worked especially easily and accept finishes well. Oak and birch are hardwoods that look similar to the common softwoods but offer greater durability. Oak's attractive grain is often favored for flooring.

For a recent house in Stamford, Conn., Elena Kalman, AIA, envisioned a clear pine staircase with cherry handrails and balustrade accents. True cherry was beyond the client's budget, however, so Kalman stained the pine to replicate cherry. She repeated the accents on the birch veneer front door, and on the maple-front kitchen cabinets (right). The glass-front units received a complete cherry stain.

The veneering process uses more of each log by peeling thin sheets instead of boring out boards from a round log. And the substrate under most veneers typically consists of more abundant species, engineered to ensure dimensional stability.

wood performance

Design strategies such as angling exposures or shading south-facing walls can reduce sun damage and enhance wood's performance. But the true performance of any wood product can be traced to the timber species from which it came. Cedar and redwood naturally resist rot and insects. White pine tends to shrink if left unprotected, while teak is naturally stable. Every timber species known to science has a performance profile, and most have a long history of use to back it up.

dealing with moisture

Moisture is a critical factor in wood performance. No wood is immune to it, and no wood can be completely sealed from it. Architects have two lines of defense: moisture-conscious design, and specification of moisture-resistant wood types and cuts.

Early woodworkers understood moisture's power over wood. They developed panel doors, for instance, to overcome the instability of earlier batten doors. Loose-fitting, beveled panels “floated” inside a frame, allowing for seasonal changes in dimension. When humidity caused the wood to expand, the panels tightened inside the frame without affecting the door's overall dimension. When the panel shrank in dry times, it didn’t pull the frame with it.

Today’s popular raised panel cabinets and doors—mostly molded out of veneer and wood composites—are an aesthetic by-product of a very practical strategy for coping with moisture.

Another time-honored practice is to leave spaces (or key-
ways) between roof and side-wall cedar shingles, allowing them to expand and contract. Shorter flooring planks mitigate humidity-related movement while eliminating defects found in longer lengths. Stains, paints, and other finishes also protect against moisture, though they typically can't block it entirely.

For maximum moisture resistance, specify heartwood and quartersawn cuts. Heartwood is the tree's oldest wood, where cells are no longer gen-

fir and pine

Idaho architect Kevin McKee, AIA, has carved a niche with log home designs in wilderness locations. In the house below, he used debarked fir logs and knotty pine ceiling planks supported by glue-laminated beams. Fir and pine, both softwoods, are the most commonly used structural timbers. They are grown in abundance on private and public forests and plantations; most of the trees harvested are second- and third-growth timber.

Fir is a straight-grained, moderately durable wood. It is easily worked and accepts paints and varnishes well.
en the growth rings, creating a tight, parallel surface pattern. Both offer greater stability than sapwood or juvenile timber cut in more economical flatsawn (or slash-cut) sections, which are distinguished by an elliptical surface pattern.

Weeks in a warehouse won’t prepare unfinished wood for the moisture fluctuations it will endure on-site. So it’s a good idea to let wood adjust to its new environment before finishing. The goal is to achieve an equilibrium moisture content, when it no longer dramatically gains or loses moisture once it has adjusted to the relative humidity of its environment.

Not all woods air dry at the same pace. A piece of 4 x 4 pine takes about 20 days to drop below 20% moisture content (a reliable level), while a comparable section of redwood might take a year. Even kiln-dried lumber (wood heated to at least 175 degrees Fahrenheit to force out moisture) can reabsorb moisture in the right, or wrong, conditions.

Other tactics to mitigate moisture include the use of straps and bolts, crossbanding, chemical preservatives, and wood laminates such as plywood. Durable hardwood plywood, for instance, offers an economical and aesthetically interesting alternative to costlier woods.

**Wood Alternatives**

It may pay to get creative with common woods, finishing them to replicate more exotic species. This strategy works especially well in small-scale applications, and for molded products such as trim, doors, and cabinet fronts.

Budget realities have forced Michael Hauptman, AIA, of Brawer & Hauptman Architects in Philadelphia, to explore alternatives to rare or exotic woods. He looks for common species whose color and figure (surface pattern) resemble the desired rare wood. He has swapped maple paneling for the pear-wood his client originally wanted, and has used mahogany stain on a paint-grade custom entry door to replicate the solid cherry he initially specified. For a handrail, he sampled more than 20 combinations of wood and stains to match the color of a kitchen’s cherry-veneer cabinets. He eventually settled on a clear pine with a mahogany stain. “It was a different grain pattern than the cherry cabinets, but the form of the handrail hid it,” he says.

**Balance**

Like avocado-colored appliances and shag carpeting, wood finishes can quickly go out of style. “If it’s poorly done, it will get tiresome,” says David Salmela, AIA, whose Duluth, Minn., firm regularly wins awards for its wood-based designs. But well-balanced use of wood is timeless.

Elena Kalman, AIA, specified oak floors to provide a warm, subtle contrast to pine and maple used in a house in Stamford, Conn. (pages 76–77). She also kept the walls unadorned. “I wanted plain walls to make sure the wood accents were the most important element,” she says.

Hauptman used wood extensively in a house he designed in southern California, for paneling, flooring, doors, and casework. Achieving the proper contrasts—and anticipating how the tones of the various woods will change with age—was his biggest challenge. “The client wanted specific colors, but sometimes we didn’t see enough contrast among them,” says Hauptman, who showed his clients aged samples of their preferred species to show how the wood might change over the years. “It was a long process, but the result is that these clients will enjoy their home for years to come.”

Rich Binsacca is a freelance writer in Boise, Idaho.
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Circle no. 89
San Francisco architects Steven and Cathi House helped an Oakland Hills family recover and rebuild after the devastating 1991 fire storm. The house they crafted stands boldly on its hillside, offering comfort and security—and a dash of fun.

House + House Architects looked to traditional Mexican architecture for the bold color palette of this house in the Oakland Hills, built after the 1991 fire. Surrounding vegetation regenerated quickly after the blaze.
It began with just a puff of white smoke on a sunny Saturday morning. Within hours, a wind-whipped inferno had engulfed thousands of homes in Oakland Hills east of San Francisco. Walls, roofs, floors, decks, and furniture vaporized in 2,000-degree heat. Gracious old neighborhoods with handsome trees and pretty gardens were reduced to ashes and blackened tree stumps.

Both client and architect placed a high priority on craftsmanship. The narrow steel poles that support the owners' bedroom deck are entwined with steel "snakes" with blown glass "heads," designed by Richmond, Calif., artist Nick Taylor.
When families were finally permitted to confront the aftermath some days later, they found nothing but forlorn fallen chimneys. Gone were historic Arts and Crafts houses and charming Mission Revival bungalows. Handsome redwood structures with views of the bay, newly built Modernist homes, and quirky Fifties shacks perched among the eucalyptus had vanished. Rivulets of metal that had once been refrigerators, knives, forks, and washing machines ran like silver streams through the ashes. Most families were able to scavenge little more than burnt bricks, broken shards of dinner plates, and oddly twisted bicycle frames.

take one
One of the families who lost everything to the flames had recently become clients of Steven and Cathi House of House + House Architects in San Francisco. The couple, an accountant and a schoolteacher with two young children, had engaged the 20-year-old firm to remodel their modest Arts and Crafts-style bungalow. The house was well-located, but the floor plan needed updating and the site was cramped, recalls Cathi House. They were working on initial drawings that would exploit the potential of this small house.

The fire changed everything. The house burned to the ground.

take two
Several months later, still traumatized, the couple purchased a new building site not far from their ruined house. The 100-by-300-foot site, on one of the highest points in the Oakland Hills, offered views of the Golden Gate Bridge to the west, fog-covered Mt. Tamalpais to the north, and the glistening San Francisco Bay. And it had a large flat buildable area with no chance of obstructed views in the future.

"We were very happy with the new site because it gave us so many possible design solutions," says Cathi, the project director. "It has sun all day throughout the year, and it’s sheltered from the wind. You couldn’t pick a better place to start over."

Sensitive to the shock of their clients’ recent tragedy, Cathi and Steven began a series of discussions with the couple about how they and their children would like to live. "The blackened hillsides all around the site—some of them rapidly becoming construction zones—were a daily reminder of the inferno," recalls Cathi. "We worked very hard with our clients to refocus their lives away from loss and toward renewal.

"Working with people who have just lost everything—their clothes, family photographs, all of their artwork—is a very intense process," she says. "We encouraged them to look beyond ordinary matters with freewheeling idea-sessions where they talked about their everyday rituals. We felt it was necessary to focus on the family’s spiritual ideals and to imbue this house with new meaning, making it truly theirs."

design process
All agreed it would be a very customized house, rich in detail and personality. Steven, Cathi, and staff architect Michael Baushe started with a series of diagrams analyzing the site and sun angles. In countless ever-more detailed drawings, they sketched possible room locations and traffic flow, garden and driveway sites, and where the best views were. Other drawings detailed public and private areas, outdoor play areas, paths and terraces.

"We found it extremely helpful to present
Deep window and door reveals—as much as three feet thick—shade openings, creating a shadowbox effect on the home's facade. A curved concrete ledge next to the front door offers a sunny spot for enjoying the garden or watching the children at play.
up from the ashes

A curved glass block wall is reflected in the mirror of the children's bathroom. Maple cabinets are stained in playful hues of turquoise and green. The countertop is limestone.

The home's playful palette extends to the maple and birch cabinets, which are washed with aniline dyes in tones of purple, turquoise, peach, and chrome yellow.

these sketches to the clients, to draw them away from style fixations or theme architecture,” says Cathi. “At that point we were open-minded, too. We had no idea what the house would look like.” Within three months, the architects had developed refined massing studies and, finally, a detailed model for a 4,000-square-foot house.

external influences

Steven and Cathi found their inspiration for the home’s exterior massing in the colorfully vertical hillside villages they have explored in their travels to Italy, Greece, and Mexico. Architects and clients agreed on stucco for the multifaceted exterior.

The color palette is Mexican. Emboldened by their passion for Luis Barragan’s vivid colors and poetic wall planes—and the invigorating colors they’ve found in San Miguel de Allende, Mexico, where they own a home—the Houses selected three exterior wall tones: ocher, terra cotta, and sienna. The use of three tones rather than a single color creates a more interesting and less imposing presence, says Steven. The color blocks also emphasize the home’s strongly vertical forms.

“The house has a very strong, simple footprint underneath the exterior shapes,” Steven notes. “It looks like a very complex design, but it has just a couple of guiding principles: the site, and our clients’ wishes to have every room face a view. They wanted to watch sunrises and sunsets and to have each room address a special scene.”

interior motives

The first floor has few interior walls. It houses the kitchen and an adjacent dining area that overlooks the living room and music room. A craft room provides generous space for family projects and hobbies. The second floor, which is reached by a dramatic curved stairway, includes a family room, three bedrooms, and two large bathrooms.

The architects gave every window in the house a view of San Francisco Bay or the garden, or an orientation that captures the best light at certain times of day. From their bedroom window, the parents can see the Golden Gate Bridge and San Francisco’s lingering sunsets. The kitchen and craft room get morning sun.

“With such open interiors to take advantage of the great views, we had to define rooms with various inventions,” says Cathi. “There’s a curved strip of colorful neon in the ceiling between the kitchen and the dining room. A one-step level change signals a separation between the dining room and the living room. A curve of aniline-dyed cabinets further defines the kitchen and the dining room.” To signal the progression from foyer and dining room to kitchen, the floor changes from red-stained oak to high-fired ceramic tiles with decorative insets.

Encouraged by her clients, Cathi gave the open-plan interiors a playful spin. Custom-made hand-blown glass lights dance in the ceiling of the kitchen. In the foyer, plaster walls in ocher and purple greet family and friends, with a bright red support column and magenta-colored stair carpeting for contrast.

Cathi liked the texture and sensuality of wood finishes, but wanted the house to look modern rather than “woody.” Her solution was to color cabinets, stairs, and shelves of maple and birch with aniline dyes in purple, turquoise, peach, and chrome yellow. Bathroom cabinets received pearlized finishes.
The house today looks very much at home on its hillside. Eucalyptus trees have sprung up in the garden, shrubs and flowering trees are flourishing, and there is very little evidence of the fire.

Says Steven, "We spent more time with these clients than on any other project we've worked on, so that their design emphasizes form, security, and order. Every room is designed to soothe and inspire them. When the house became a reality, the owners found their new beginning."

Diane Dorrans Saeks is a freelance writer in San Francisco.
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you want user-friendly? you want easy to learn?
then you want a mac, says this macintosh devotee.

by david s. arends, aia

Mac or PC? When it comes time to invest in a new computer system, we design professionals must decide which is the most effective operating system: PC/Windows or Macintosh. Without question, the PC/Windows-based operating system dominates overall market share: an estimated 90% or more compared with Macintosh systems.

Within the architecture and engineering professions, however, Macintosh seems to have greater acceptance—up to 50% of A/E market share, by some estimates. I am one of those architects who swears by Macs, and I’m here to tell you why.

weighing the options

After about 15 years of practical experience in both large and small firms, I started my own architectural practice in January 1997 (see May/June, page 52).

This was an opportunity to establish a business with a ‘clean slate,’ with no pre-existing circumstances or conditions. I could build upon successes I had observed in some firms, while avoiding less wise strategies I’d seen in others.

In my previous positions, I worked with both PC/Windows- and Mac-based computer hardware and software products—but as a lay user, not a computer specialist. I didn’t have the background, time, or frankly, the desire to be a computer systems expert.

Now that I am a business owner, I require a precise and efficient tool to perform the professional services for which clients hire my firm. And so, I elected to take the Macintosh route for my new practice.

It wasn’t an easy decision. My peers continually reminded me of PC-usage statistics and the commonly held opinion that architects who don’t use PC-based AutoCAD can’t survive.

In the end, however, I based my decision on the professional experience I’d gained from using both systems. I discussed pros and cons with other local A/E firms, both large and small, who use Macintosh exclusively. When I considered criteria such as ease of use, software and hardware costs, employee training costs, and functional compatibility, the choice was clear.

Macintosh-based CADD

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The biggest concern was to find a user-friendly product with full architectural drawing features, limited 3-D modeling functions, and compatibility with other DWG-based programs. After careful research, I chose PowerCADD, which is produced by Engineered Software.

PowerCADD is certainly easy to use. Case in point: I hired an intern architect with several years of practical experience, but who had very limited computer knowledge and no CADD background at all. Based on my experiences with learning CADD, I advised him to “jump in feet first” and start working with the program.

I suggested that he take a standard drawing—in this case a detailed floor plan—and redraw the document in a CADD format. Within the first day, he had completely regenerated the drawing on the computer, including notes and dimensions, using most of the software’s primary functions (such as layers and dynamic snap modes).

Because PowerCADD is easy to use, it’s a real money-saver in terms of employee training costs. If the intern had been asked to learn AutoCAD, I believe he would still be learning the program after six months.

Software costs were another factor in my decision. The list price for PowerCADD is $795. The actual purchase cost is almost $300 less—nearly a fifth of the AutoCAD software cost per work station, based on quotes I obtained locally.

**Compatibility**

Functional compatibility was my biggest concern in choosing Macintosh. I was fully aware that the majority of the world uses AutoCAD. If I could operate my firm solely within the confines of my office, compatibility wouldn’t be a problem. But an architect must interact with clients, consultants, and outside vendors, of course.

With PowerCADD, compatibility with outside AutoCAD users is a non-issue. PowerCADD software easily reads and writes files in either DXF or DWG formats, as well as several others. On an almost daily basis, we receive and send document files to our clients, consultants, and vendors in floppy disk format or via the Internet. In the nearly 18 months we’ve been in business, we’ve had no problems—other than dealing with people who turn up their noses because we don’t use AutoCAD.

**Clear choice**

Over the years, I have learned that it is almost impossible to convince a Windows or PC user that Macintosh is better. And I know those same people can’t convince Mac fans of the PC’s benefits.

But as one who has lived in both worlds, and who had to make the big investment in a computer system for my new firm, the advantages of Macintosh seem obvious. When I look seriously at initial hardware and software costs, ease of system use, functional compatibility, and—most importantly—the cost of employee training, I find it difficult to understand why architects and engineers continue to “follow the leader” with AutoCAD and PC systems.

David S. Arends, AIA, is founder and president of Architecture One, a multidisciplinary architectural firm in Cincinnati.
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decorative applications

Concrete is often specified to mimic more expensive stone or tile finishes. But architects and consumers have come to appreciate the singular beauty of concrete itself. Decorative flooring, one of its sexier applications, is growing in popularity across a range of home styles and budgets.

Supporting this surge is an expanding pool of professionally trained contractors. And manufacturers are coming out with a growing array of coloring, texturing, and patterning products that have expanded design options multifold.

Architectural concrete floors are not limited to on-grade slabs. Nancy Carney, AIA, of Carney Architects in Jackson Hole, Wyo., typically does four-inch pours supported by engineered-wood joists over full basements. “We load up the slab with steel, and settlement has not been a problem,” she says. Upper floors can be poured with thin-set material in one- to two-inch thicknesses. And Bomanite Corp. recently introduced ‘Micro-Top,’ a credit card-thin, multicolored cementitious topping that can be applied over existing surfaces.

coloring concrete

Architectural concrete gets its color in one of three ways. The simplest method is to introduce a color additive directly into the concrete mix. The result is integral color that is fairly uniformly diffused throughout the slab.

Another method, “dry shake,” involves working a mixture of concrete and additive into the unhardened slab surface. This labor-intensive process requires experienced applicators, who may be expensive and hard to find.

The most common coloring method is acid stain that chemically fuses to the surface of an existing slab or a new slab that has cured for 30 days or more. This system offers a wide array of color and design options, and is the best way to produce the mottled patina that is currently so popular.

Cement’s natural gray hue produces earthy tones ranging from golds, rusts, and browns to deep greens and blues. To achieve a brighter, more intense color, specify white cement made with calcium deposits free from mineral discoloration. The purer cement will add about 50% to the price of the concrete but will produce truer colors.

When using acid stain, apply consecutive coats to intensify color. And paste wax sealers applied in multiple coats can be buffed to bring a rich depth to the color.

patterning and texture

Concrete's plastic nature opens a world of possibilities for patterning and texturing. Colored slabs can be left to dry flat. Or they can be stamped with a range of patterns by pressing mats or skins into the still-soft surface, creating the look continued on page 96

continued on page 96

by kent dougherty

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of stone, brick, tile, or even wood grain. Techniques for surface texturing range from simple brooming to the more involved methods of sandblasting, mechanical abrasion, and salt pocking.

Texturing often strips away some of the top layer of smooth cement paste, revealing the aggregate below. The designer can specify aggregate based on desired color, size, and shape. Aggregates also can be "seeded" into the curing surface. Designers have also experimented with embedding found objects.

Scoring adds depth and dimension to flat floors. Large-scale scoring patterns can achieve effects that true stone or tile can't, says interior designer Gay Loughridge Ferraras, who designed a sophisticated concrete flooring program for a house in Phoenix (page 94).

caveats
Despite its many advantages, colored concrete is not flawless. While integral coloring provides some degree of uniformity, concrete composition and finishing action may still produce significant color variations.

"That's part of the fun of it, really—you just don't know what you're going to get," says Carney. "[Architectural concrete flooring is] not for the timid. But for the brave, the finished effect is incomparable."

Carney emphasizes the importance of finding an experienced contractor and checking his or her previous work. "The color application is key, and it is very unforgiving. It's really an art. If it isn't done quickly and evenly, you can get bad blotching," she says. Several suppliers, among them Bomanite and Increte Systems, train and certify installers of their concrete surfacing products (see resources, right).

For consistency's sake, Carney recommends a one-day pour. "Batches differ slightly from day to day, and weather conditions can change. The fewer variables, the better the color job will be."

Cracking is virtually inevitable with concrete, as the slab settles and cures. "But, really, who cares?" says Larry James, AIBD, a designer in Monroe, La., who frequently uses architectural concrete floors in his residential work. "It often adds even more character to the floor."

Fibrous reinforcement can help control shrinking and cracking, though Carney has had trouble with it. "The fibers can give you a 'hairy' floor, even through the finish, and I've had no success in burning them off," she says. Control joints can be installed, especially to prevent corner cracking.

Despite the options available, concrete floors simply aren't for everyone. Some people complain that they lack the "give" of hardwood or carpeted floors. Concrete floors also are cooler underfoot, which is a blessing or a curse, depending on the climate. The solution? Radiant floor heating. "The two systems go hand in hand," says Carney, who has spec'd concrete floors with radiant heat in many of her projects.

beauty and the budget
In almost all cases, colored and textured concrete costs less than other flooring finishes. Coloring can add 50 cents to $2 a square foot (depending on the application). Patterning and texturing can add $3 to $5 a square foot. It's a low-cost way to achieve a high-end look.
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found space

two clever storage ideas make the most of dead space.

by rick vitullo, aia

ack of storage is a home owner's lament, especially in smaller houses. A clever architect can see the potential in overlooked spaces, turning them into storage solutions that are as practical as they are delightful.

For a small-lot house in Minnesota, Minneapolis architect Dale Mulfinger, AIA, of Mulfinger, Susanka, Mahady & Partners fashioned a wall into a two-sided storage system serving both the living room and the kitchen/entry area. For the living room, he designed a set of maple bookshelves 12 feet wide and 14 inches deep, ending them 30 inches above the floor. Below the bookshelves and facing the entry, he built a cubbyhole for boot and glove storage. Its painted shelves are protected with rubber mats. Along the same wall, Mulfinger built in a hutch for the kitchen. The entire storage wall has room above for a duct chase.

continued on page 100

got an idea?

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The need for efficient storage space drove the design of a house on Little Chimney Island in Ontario, Canada, by Darrel Rippeteau, AIA, of Rippeteau Architects in Washington, D.C. For the boys’ bedroom on the home’s upper level, he designed facing bunk beds with storage drawers below. The drawer pulls are 6-by-3-inch openings cut into solid-core plywood facing. Rippeteau used cuts of the same dimension to create toe holes between the drawers, which the boys use to climb up to their bunks.

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

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residential architect / july-august 1998
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Who can enter?
- custom home builders
- remodeling contractors
- architects
- developers
- planners
- kitchen and bath specialists
- other industry professionals

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- An individual house designed and built to the unique specifications of a custom client on the client's lot.
- Entries should represent truly custom construction.

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- MAIL this form to Deena Shehata, 1999 CUSTOM HOME Design Awards, One Thomas Circle, N.W., Suite 600 Washington, D.C. 20005.
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Number of Entries

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2. Custom Home 3,000 to 5,000 sq. ft.
3. Custom Home more than 5,000 sq. ft.
4. Custom Kitchen
5. Custom Bath
6. Renovation (residential remodeling and additions)
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To me, the city that best harmonizes its myriad themes is Rome. Rome has a never-ending sense of surprise. A narrow, winding alley spills into an enormous plaza. Hilly terrain inspires grand staircases that become stages for public activity. The scale is tremendous—but the details are intimate. Architecture blends into art so seamlessly that you never know where one ends and the other begins. And, unlike Paris, Rome is alive with color.

The lesson of Rome is its harmony. Even though it has evolved over centuries and represents the visions of thousands of architects and artists, it remains fiercely and cohesively classic at heart.—stephen fuller