

Inside: Brain Van Bower on Positive Competition

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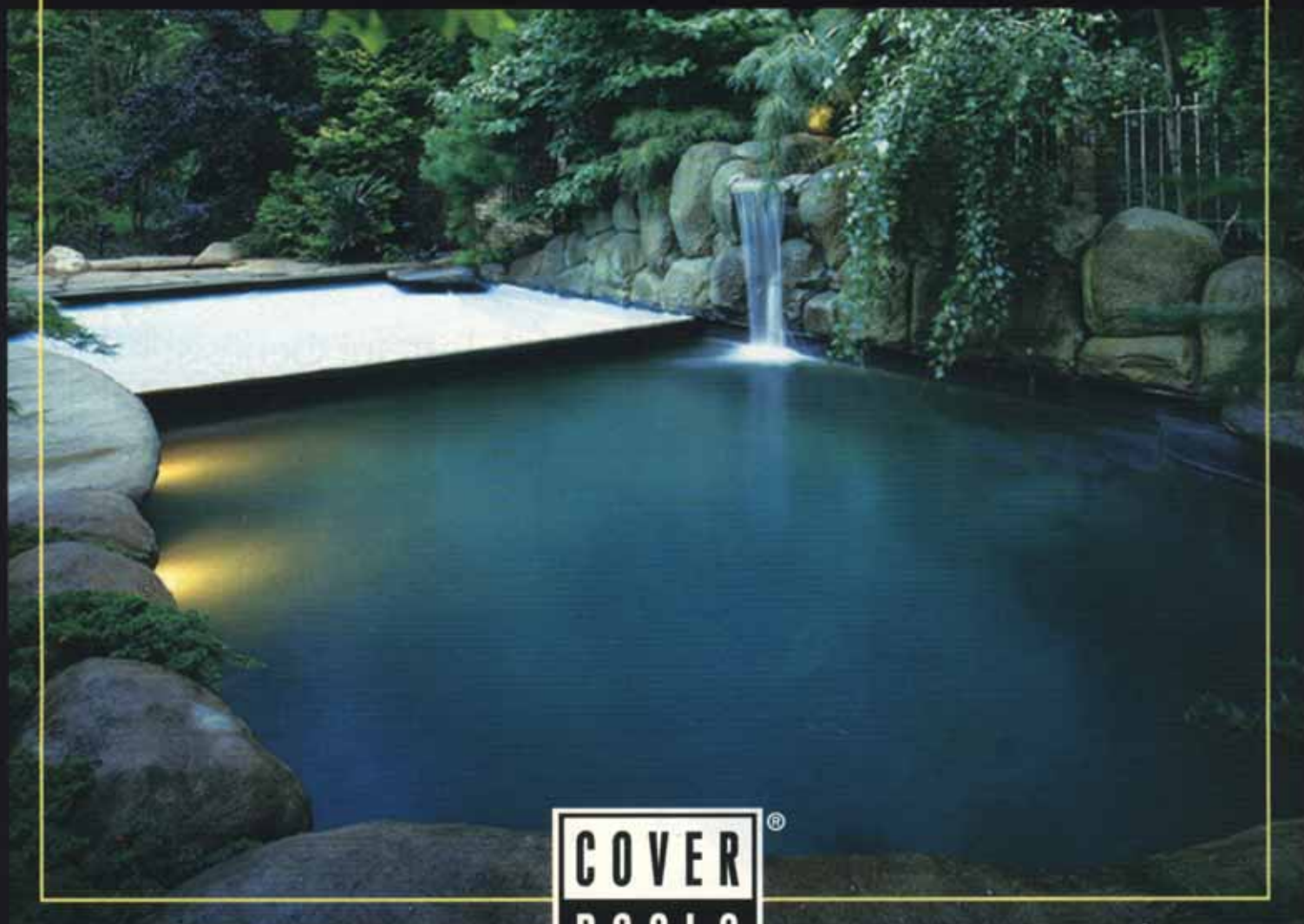
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Photo courtesy

Elizabeth Navas Finley, San Rafael, Calif.

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Artful Borrowings

It has been said by the experts that all art and craft is derivative, that any form of creative expression is actually a synthesis of both the designer's vision and the application of pre-existing influences and principles.

In looking at the challenge of turning exterior designs into something special for customers, the watershaper is confronted with a particularly dynamic set of elements, possibilities and precedents: Water, plantings, stone and surrounding views are all interwoven in creating a space that is at once beautiful, functional – and often steeped in tradition.

As we at the magazine have dug deeper and deeper into what watershaping is all about, we've run over and over again into one of the richest resources imaginable for watershape designers in the grand and sublime traditions of the Japanese garden. People often assume that Japanese gardens work only in Japan or with a certain clientele, but that only indicates a huge misunderstanding about what Japanese garden design is all about.

The fact is, the common practice of creating highly detailed spaces using stone, lanterns, greenery (and especially water) exists worldwide, independent of any adherence to Eastern religions or Japanese cultural underpinnings. These spaces express a philosophy of design that maximizes views, textures and sound; an adherence to natural rhythms; and a deep-seated sense of the value of serenity and quietude. In this sense, the principles of Japanese gardening are uniquely flexible – there for everyone to borrow and bend to their own purposes.

This is the essential message of "Back to the Garden" on page 28 of this issue: Here, master gardener and landscape designer Elizabeth Navas Finley examines and dissects the key elements of Japanese gardening with an eye toward showing how the simplest touches can be extracted for use in a broad range of design tasks.

Whether or not these ideas convey themselves as distinctly Japanese or simply serve to prompt a reader's thought processes, there can be little doubt that familiarizing yourself with this ancient tradition of exterior design can inform and enrich your work. As we move into a new century, isn't it time to embrace the possibilities presented in the integration of past design disciplines with the sophisticated needs of future clients?

I heard from Larry Long a while back. The owner of Long Swimming Pool Steel in Anaheim, Calif., had called to tell me that his good friend, Norm Wozniak, had recently succumbed to amyotrophic lateral sclerosis – better known as ALS or Lou Gehrig's Disease. A 20-year pool plumbing and electrical contractor, Wozniak is survived by Margaret, his wife of 30 years, and four children. He was only 52.

Long's hope is that Wozniak's death might inspire his industry to join the fight against ALS. "I want people to be aware of the devastating effects ALS can have on the lives of those left behind," Long told me. "I hope that by letting people know about Norm, they'll find out more about ALS and get involved in the effort to find a cure."

For more information, contact the ALS Association, 27001 Agoura Road, Suite 150, Calabasas, CA, 91730, or call (818) 880-9007. It's a terrible disease – and a worthy cause.



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IN THIS ISSUE

DECEMBER'S WRITERS

Elizabeth Navas Finley is a master gardener and landscape designer based in Northern California. She writes a regular column for the *San Francisco Chronicle* about gardening around the world. A student of the landscaping and gardening traditions of diverse cultures, she recently completed a four-year sabbatical in Japan studying design principles of Japanese gardens.

Roundtable Participants include **David Tisherman**, owner and operator of David Tisherman's Visuals in Manhattan Beach, Calif., co-founder of the Genesis 3 Design Group, and a builder of high-end custom swimming pools since 1979; **Richard Dubé**, a

landscape designer based in Columbia, S.C., co-founder of The Whispering Crane Institute and a specialist in naturalistic and sustainable landscape designs; **Rick Anderson**, owner of Ston Wurks in Columbia, S.C., a co-founder of The Whispering Crane Institute and a designer and artist with 21 years of experience in the use of natural materials, particularly stone, in naturalistic settings; **Skip Phillips**, president of Questar Pools in Escondido, Calif., a co-founder of the Genesis 3 Design Group and a veteran designer and builder of high-end, custom swimming pools; and **Brian Van Bower**, owner of Aquatic Consultants and a partner



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in the pool-construction firm of Van Bower & Wiren in Miami, a co-founder of the Genesis 3 Design Group and a specialist in the design and construction of swimming pools, recreational areas and hydrotherapy clinics.

Clint West owns and operates Clint West Graphics in Simi Valley, Calif. He has worked as a graphic artist and illustrator for more than 12 years, after studying design and rendering at the University of California at Los Angeles and architectural rendering and design at the Art Center College of Design in Pasadena. An instructor for the Genesis 3 Design School, West specializes in interior

and exterior architectural renderings and has worked with numerous watershape designers. **Leah Canon** is a free-lance writer based in Encino, Calif.

Vance Gillette, vice president and general manager with Teledyne Laars/Jandy Products' Pool Systems Division, has been active in the swimming pool industry for more than 30 years. Throughout his career, which began at the age of 19 with Arneson Products, he has traveled the globe in top-level sales and marketing roles. He has spawned debate and discussion for more than ten years with his views on the industry's course and future.



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Why Good Competition is Great

By Brian Van Bower

Not long ago, my friend and Genesis 3 co-founder David Tisherman was in Miami. We took the opportunity to drive around and look at some of my jobs. As we moved through the Coral Gables area, really enjoying that beautiful waterfront community, he said, "This is nice. I'd really love to work around here."

Now, in case you don't know, Mr. Tisherman is one of the finest pool designers and builders anywhere. My first reaction to his remark was, "Jeez, what would it be like to compete against this guy?"

As I thought about it, I came to recognize that, far from being a threat, it would actually be one of the best things that could happen in this area – and to my own business. Later on, I began to expand the scheme and think about Tisherman and our Genesis cohort, Skip Phillips, and what might happen if *both* of them were working in my area, competing with me for jobs and, no doubt, referring work to me as well.

The more I considered this scenario, the more I realized that good competition might be one of our industry's most underestimated, underappreciated assets.

UPSIDE-DOWN PRICING

When I say "good competition," I'm talking about quality-oriented companies that strive to perform at a high level



'When I say "good competition," I'm talking about quality-oriented companies that strive to perform at a high level with respect to design and construction.'

with respect to design and construction: great concepts, sound engineering, quality materials and superior execution. And there's a pretty compelling list of reasons why being blessed with such professionals stands to benefit to every single operation in that marketplace.

For starters, the good builders would no longer stick out like sore thumbs. Because so much of what goes on in the pool and spa industry is geared toward volume production, the bar is set extremely low. Everywhere you look, you see this approach to selling, design and construction driven by the lowest possible price points and the slimmest margins of quality.

The main way this low-brow approach is expressed is in pricing. I work

with many customers who know my reputation and want to work with me, but when I design a pool and come in at \$150,000 compared to others who roll in at \$80,000, many of them cannot ignore the differential. They *know* what they're getting for the lower price isn't even remotely similar to what I'm offering with my higher bid, but they understandably assume that the low bidder can't be *that* far off the mark.

Rewrite this situation and include another top-notch designer/builder: When good operations set up in the same marketplace, you'll find that there will still be some price differences – but the ranges will narrow considerably. A quality competitor will share your design values: He or she will be incorporating raised spas,

vanishing edges, waterfeatures, chlorine generators, quality materials – and, most important, will focus on an overall integration of design.

When you bid against a volume builder who's looking only at margins, you'll see bids that are a quarter or even a fifth of your price. That kind of quality gap is amazing – and invariably results in an erosion of credibility for everyone involved. By setting the minimum performance standard so incredibly low, the gap that's created between low and high is so huge that you can't be surprised when customers respond with confusion, skepticism, disillusionment, distrust or even anger.

If, by contrast, other bidders are bringing the same design sensibilities and dedication to quality to the design/bid process, the customer sees consistently excellent designs and installations and the benefits of an elevated approach are reinforced and validated.

NOT JUST THE BUCKS

Now let me very clear: Good competition is about more than justifying high prices. Much more important is the fact that good competition serves to elevate consumer expectations in a given area, a factor that reaches far beyond purely monetary concerns.

On one level, good competition is about the availability of a pool of quality contractors. If you don't see the value of that right off the top, think about it this way: If you have to refer a client to someone else in your market and you want someone who does beautiful work, whose number would you pull from your Rolodex?

I've asked builders from all over the country that question, and many of them say they have nowhere to turn. And think about markets where not a single company is operating at the high end: In those areas, the discerning customer who wants a quality pool will not be able to find anyone who can

Identifying the Competition

It's often been said – almost to the point of numbing us to its essential truth – that other pool builders and designers really aren't the ultimate competition: It's RV dealers and travel agents who are really siphoning off resources from the discretionary-dollar pie.

I believe this to be true, absolutely so, and that the only way to combat these threats to our livelihoods is to work at the top level, emphasize quality and let the product speak for itself.

Good competitors raise that bar. Ultimately and together, we will draw more discretionary dollars to our coffers and get a bigger slice of the pie.

– B.V.B.

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build it! That's truly sad, but it's the state of the industry in far too many markets.

In my market, which is big and famous and active and sees lots of pools being built each year, there's only one other builder about whom I feel comfortable when it comes to referrals. I've seen a good bit of his work, and although his style is somewhat different from my own and I don't always agree with the way he does things, there's no question that he cares and does top-notch work for his clients.

I do a lot of design work for customers and, often, I don't end up building the project. This one contractor is only person in my entire area who really has my confidence. I know that my design is in good hands if he lands the contract.

Now, as you can tell by the first paragraph in this story, I'm not immune to the fear that good competi-

tors can strike in the hearts of their peers. It's a natural tendency, and I guess it boils down to human nature on some level and some indescribable self-protection reflex. But when you stop and think about it, as I did in the days after David Tisherman dropped his little bomb on me, competitors who bring their own brands of creativity and quality to the process are allies to be desired and cherished.

There's certainly enough work to go around in most markets, and I believe it is in our best interests to become quality competitors and to prize and even nurture others we run across.

Competitors who bring their own brands of creativity and quality to the process are allies to be desired and cherished.

A DIFFERENT DRUM

Now let's look at this picture from the customer's perspective – and find out where this high-level competitive scene really pays off.

We all know that many customers like to buy what they've seen. Sometimes they'll spot a feature they like at a commercial facility or a waterpark; other times, they'll have something etched in their memories during a stay at a resort or in a visit to an aquatic sports facility. Or they'll see work done at other private residences and go looking for the same sorts of

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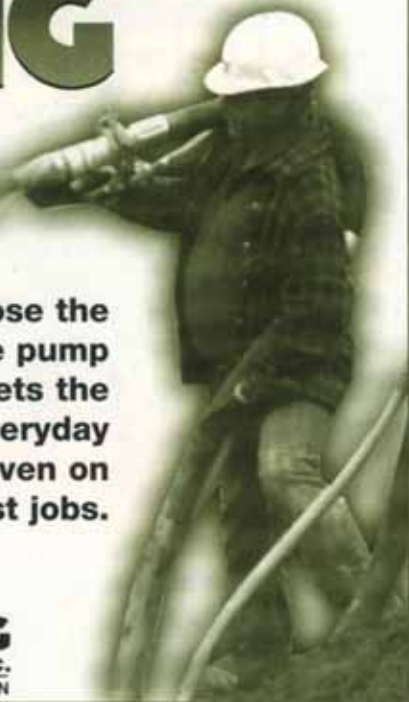
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things for their own backyards.

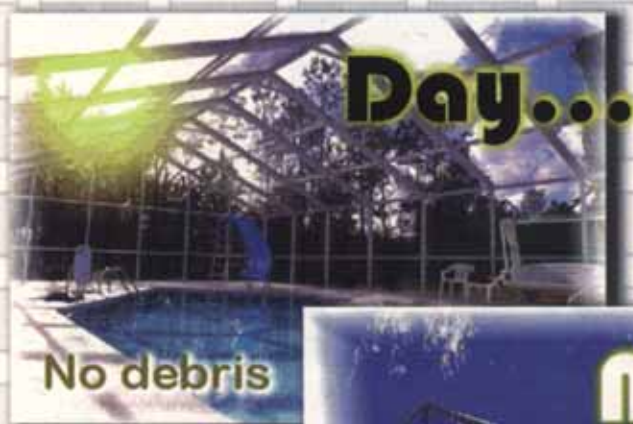
These experiences can have a dramatic effect on clients: They will associate these positive memories with the prospect of buying their own pools, recalling, for example, the relaxing time they spent at some resort or other where they were impressed by the rock-

work or the tile or the waterfall or the texture of the deck under their feet.

This sort of background imagery definitely influences the customer's desire to buy in the first place; moreover, it sets a standard – and usually a very high one – in their minds. And it all comes down to one thing: They want what they've seen.

With so few good builders in a market like mine, there are relatively few opportunities for consumers to see quality work. It therefore makes my job that much harder: I have to start on the ground floor by defining quality and working with limited expectations. By contrast, if there were a half dozen top-level companies in my area, not only would customers have far more opportunities to see quality work in their friends' backyards, but they would also have the chance to select among different styles and a broader variety of features.

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greatness because
they're inspired to beat
an outstanding opponent.**

Honestly, I feel like the odd man out in my own market. Instead of knowing that my clients will be talking to a set of like-minded professionals who want to win jobs based on their expertise and design skills, I put my best foot forward knowing that others in the market are actually angling after jobs by pursuing least common denominators.

Under these circumstances, I have to bring customers so far along the curve that I sometimes seem unreasonable and unrealistic. In other words, this "quality gap" erodes my credibility and that of all other bidders and ultimately keeps customers from really understanding and appreciating their full range of options.

THE COMPETITIVE SPARK

Another huge benefit to good competition is that it keeps you on your toes. It's not unlike great sports rivalries where outstanding players or teams elevate themselves to even higher levels of greatness because they're inspired to

Continued on page 16

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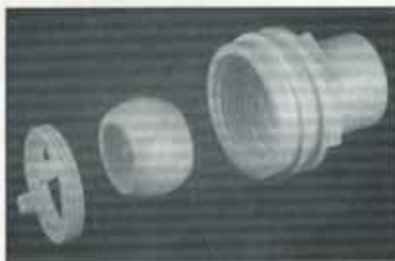
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Continued from page 14

beat an outstanding opponent.

In my case, I've had the benefit of seeing the work of both Tisherman and Phillips at first hand. Even though we're not competing directly in the same market, seeing their devotion to quality has definitely inspired me to expand my capabilities and strive to become better.

Now ask yourself: If the top pool designers in the world all were gathering in your home town to talk about their work, would you want a busload of them touring your pools, evaluating and critiquing your design decisions, the materials you've chosen to use, your level of craftsmanship and attention to detail, the engineering principles you've applied? How would you feel about all of these people standing around your equipment set and telling you exactly what it says about how you build pools?

I believe there's a far greater likelihood you'd be comfortable answering in the affirmative if you were lucky enough to have good competitors in your market area. Good competitors motivate you to do better, raise your standards and pay more attention to details and finishing touches. They force you to scrutinize yourself and reach for a higher level. Whether it's the need to win jobs based on excellence or simply a matter of ego that drives you, the urge to better yourself because a competitor is doing really great work can only benefit your business and, ultimately, the local customer base.

What we see instead among competent (but isolated) professionals is all too often a debilitating sense of complacency. I'm certain that there are many talented people in this industry not working anywhere near full potential — and the simple reason for it is that there's nobody in their market pushing them to do better.

Certainly, it takes confidence and moxie to stand up and say you can compete with the best of the best. But just think about how you'll feel when you can say that because you work in a market where it's really true and where quality is valued. That kind of positive thinking simply builds on itself and becomes habitual. All of a sudden, the process of competing becomes energized: Customers get excited and

I'm certain that there are many talented people in this industry not working anywhere near full potential – and the simple reason for it is that there's nobody in their market pushing them to do better.

everyone – even the unsuccessful bidder – is lifted on the rising tide.

DON'T FORGET THE RESPECT

The one note of caution that needs to be sounded about even constructively competitive markets is that there is nothing less appealing to customers than to hear one company bad-mouth another. This is something that's been discussed at length in our industry, yet we know it still goes on all the time.

When you respect your competitors, all of that changes. First of all, it's not

in your interest to say negative things about a company that may give you a referral someday or to which you may eventually send a customer or two yourself. In avoiding that kind of negative selling, you don't drag yourself down in the process and make everyone look bad.

Beyond that practical point, you'll find that good competitors are often like-minded people you may actually come to like. When you share in the prosperity of a given marketplace and you know that your competitor is

working to elevate the quality of the work being done around you, I find that you can actually take comfort in knowing they're out there, backing up the principles for which you all stand. You might even make a friend or two!

My vision is of an industry where every market is populated by designers and builders who strive to do their best. This would support higher pricing and elevate our collective output. More than anything, I believe that the competition will energize the pool experience for both designers and customers – and that would be truly great!

Brian Van Bower runs Aquatic Consultants and is a partner in Van Bower & Wiren, a pool-construction firm in Miami. He is also a co-founder of Genesis 3, A Design Group; dedicated to top-of-the-line performance in aquatic design and construction, this organization conducts schools for like-minded pool designers and builders.

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What About Roses?

By Stephanie Rose

Let's say your clients have spent all their loose change on your watershape and can't afford to hire a landscape designer or architect. They don't even want to meet that wonderful person you've been telling them about. So why not suggest a few plants that will really spiff up their new backyard Niagara Falls?

If you're brave enough to try, I'll help you here and in a couple of future columns. Let's start by talking about roses.

WHAT'S IN A NAME?

Growing up, I hated my last name. I hated being called Rosie, Rosebud or even just plain Rose (which always seemed to be pronounced in a mocking tone). I even hated the plants.

My mother, however, absolutely *loved*

roses. She couldn't get enough of them, and I'm sure she was thrilled she had met someone with that last name so she could enjoy making her own Roses! She and my father created three of us, in fact, and my brother carried on the tradition by finding a spouse named Rosemary who, yes, does use her married name – Rosemary Rose!

After truly settling into my profession as a landscape designer a few years ago, I had to choke out those dreaded words every child hopes never to have to utter to his or her parents: "You were right." I, too, had fallen in love with roses, and after dealing

with my anger of being called Rose in a derogatory manner (or so I thought) all those formative years, I delved into learning as much about roses as I could.

After all, if you've got the name, why not go with it? And so I have.

For all that, I am not a traditional "rose enthusiast." I have not read every book on cultivating roses, and I prune my 70 rose bushes more severely than the experts would. I fertilize only three times a year, and I do it the lazy way: I don't even work it into the soil. I have my own favorites that are based on nothing more than my own personal experience, and I don't favor traditional varieties.

With that disclaimer, I would like to impart my advice and some of my favorite selections for any rose garden – and start by explaining what any of this has to do with watershapes.

Basically, this is worth discussing because so many people believe that roses will die next to a pool or will impale their beloved pool guests with those nasty thorns. It's important to know



I am not a traditional 'rose enthusiast.' I have not read every book on cultivating roses, and I prune my 70 rose bushes more severely than the experts would.

how to treat them (the roses, not the pool guests) in this environment, and it helps if you know which ones pose the least threat to your social status – and your guests!

ROSES AND WATERSHAPES

There are different types of roses. My experience has shown me that each type works well under different circumstances and with different clients. I'll just touch on a few of my favorite classes; there are many more, but these are among the most common.

❑ **Floribundas.** Floribunda roses are great for clients who don't like roses because they think all roses look leggy and that the plants are ugly.

Floribundas are a rounder, shrubbier plant with (typically) smaller blooms, but many have vibrant colors. They also have thorns, but in my experience they are considerably less "aggressive" than other classes; in addition, because of the

shape of the plant, the thorns are less exposed, reducing the possibility of injuries to passersby.

In my estimation, floribunda roses are the best types of roses to use next to a watershape. Many of you may be familiar with the "Iceberg" variety, which can produce hundreds of white flowers during a single growing season. (I've listed more of my favorites in the sidebar on page 23.)

❑ **Hybrid Teas.** Hybrid tea roses tend to have barer stalks and lots of thorns, but they seem to be more well known than other varieties, sell widely and produce some of the most spectacular blooms and colors imaginable. I wouldn't recommend putting most hybrid tea roses right next to a high-usage watershape such as a pool or spa, but I would put them next to a pond or waterfall assuming they won't get splashed too much. (Splashing can cause mildew or, in the case of too much chlorine,

burned leaves.)

My experience with them has been varied. I like "Double Delight" for its intense fragrance and spectacular magenta and creamy white coloring, but it tends to get thorny, so I cut it back severely (within 18 inches of the ground) when I snip flowers off for arrangements. This keeps the plants bushier (at least in my yard) and promotes more blooms. Strong pruning also makes them easier to place next to watershapes, but I would stick to ponds and waterfalls (lower traffic areas) with this group.

❑ **Grandifloras.** I mention this type mostly because it contains another of my favorites: "Lagerfeld." Grandifloras are similar to hybrid teas, but are typically taller – 8 to 10 feet – with blossoms that are quite large. These are great for background planting, but I would not recommend putting them next to a pool or spa be-

Continued on page 21

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"Double Delight" (hybrid tea rose)



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"Midas Touch" (hybrid tea rose)



My daughter offers proof that kids and roses can co-exist!

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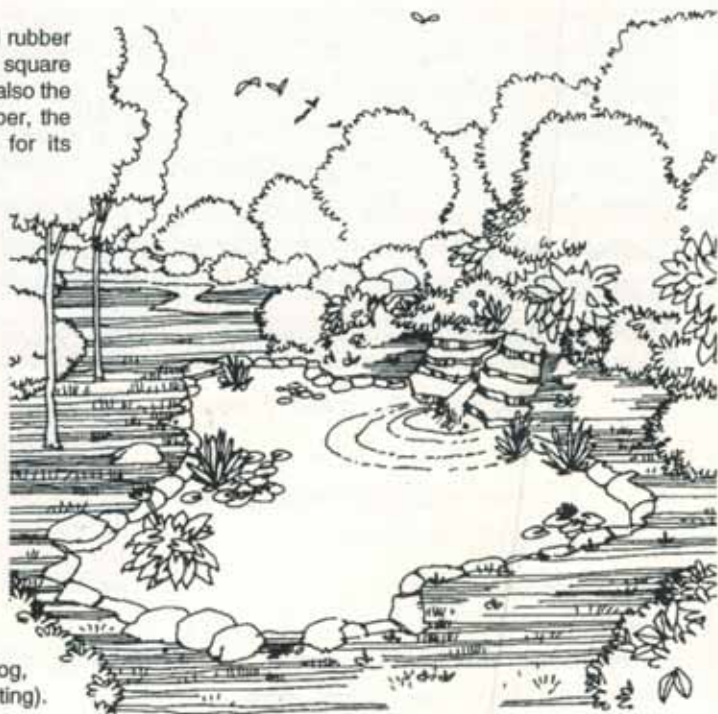
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Continued from page 19

cause a spearing by one of these plants could be quite unpleasant.

Both the Hybrid Teas and Grandifloras, however, make excellent accents if you have a raised planter behind a pool or spa. The key is placing them away from a high usage area and letting their flowers create a beautiful background display with water in the foreground.

❑ **English and David Austins.** A desire for something different brought this group back into style during the 1980s. Hybridizer David Austin has created varieties that are more vibrant and more disease resistant than their traditional early counterparts. These roses may have hundreds of petals on a single flower and often resemble peonies. They may be very fragrant, or simply stunning in appearance.

Many people don't even realize that these are roses. I would recommend checking each variety out before suggesting it, as their thorns can often be more numerous and sharper than those you'll find with other groups.

"Abraham Darby" is my favorite here for both its prolific nature and the intense fragrance it gives off. The color is also unusual, with pink, apricot and yellow tones mixing and changing as the flower ages. It does have large thorns, and would be better placed in a background along with the Hybrid Teas or Grandifloras.

❑ **Climbers.** Climbing roses may be a number of different types of roses. They have different pruning needs than non-climbers and tend to be bet-

ter suited to low-traffic areas unless they are supported by an arbor that will keep them elevated or in the background.

KEEPING THEM HEALTHY

Most roses you find in nurseries are sold as bare-root roses that have been

grafted onto rootstock. A couple of years ago, however, I discovered a grower who sells "own root" roses that are grown from an original plant rather than grafted. These have been proven in many cases to be more disease-resistant than bare-root varieties.

I ended up trying one of these plants

GOOD SOURCES

To order roses by mail, my favorite sources are Jackson & Perkins (800-292-4769), Wayside Gardens (800-845-1124), Antique Rose Emporium (800-441-0002) and, for own-root varieties, Heirloom Garden Roses (503-538-1576). Specialty nurseries in your area may carry other varieties that the first three don't.

You may find that the catalogs alone will entice you to explore the world of roses!

—S.R.



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because they had a variety called "Rosemary Rose." It made a great Mother's Day gift, and while I was at it I bought one for myself. It has turned out to be a prolific bloomer with a beautiful magenta/red color and has survived a plague of rust to which many of my other plants succumbed.

One of my clients and I discovered a brown rose called "Brown Velvet" at the Huntington Gardens in San Marino, Calif., that I could get only in own-root form. We have both had great success with this rose – but we're still trying to convince our families that the rose is actually brown, not orange or maroon. I guess it's all in the eye of the beholder!

No matter whether you buy own-root or bare-root, I recommend trying an unconventional feeding method – although don't let me stop you if you or your clients want to get out there once a month. I feed all my plants Grow Power Plus (or, if you don't have animals, blood meal) along with Bandini Rose & Flower Food and Bandini Soil Builder.

I suggest sprinkling the Grow Power and Rose & Flower Food around like salt and pepper, concentrating it a little more around the bases of the plants. (Try not to leave any fertilizer touching the bases – it can burn the plant.) I then cover up with Soil Builder until I can't see the soil or the fertilizers. Then I water and watch them grow.

I don't cultivate the soil or work the fertilizers in. My experience leads me to believe my plants are getting a gentler dose of food over a longer period of time as the fertilizer slowly seeps into the soil. Call me crazy, but my contractors love this method, too.

Stephanie Rose runs Stephanie Rose Landscape Design in Encino, Calif. A specialist in residential garden design, her projects often include collaboration with custom pool builders. If you are looking for a particular variety or rose color or have a specific question about landscaping (or simply want to exchange ideas), e-mail her at sroseld@earthlink.net. She also can be seen this season in four episodes of "The Surprise Gardener," airing Tuesday evenings on HGTV.

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Lagerfeld	lavender	grandiflora	very fragrant
Europeana	deep red	floribunda	velvety color
Gingersnap	orange	floribunda	striking color
Iceberg	white	floribunda	prolific bloomer
Angel Face	lavender	floribunda	wavy petals
Dainty Bess	pink	hybrid tea	five-petal perfect
Abraham Darby	pink, apricot, yellow	English	very fragrant
St. Cecilia	apricot	English	spicy unusual fragrance
Graham Thomas	deep yellow	English	vibrant color
Fair Bianca	creamy white	English	spicy unusual fragrance
St. Patrick	green/yellow	hybrid tea	flowers seem to last forever
The Dark Lady	dark magenta	English	striking color and fragrance



There are so many more that I'd like to list, but this is a good starting place!

—S.R.

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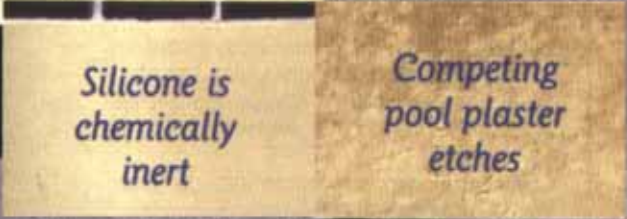
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Insights at the Kitchen Table

By Vance Gillette

You're sitting at your clients' kitchen table, putting the finishing touches on their backyard pool/spa plan and getting ready to have them sign a contract. Then they say, "We really appreciate that you listened to what we wanted. That salesperson from the other company kept telling us what kind of pool he thought we should have. He just wouldn't listen.

thing that has come to mind often in recent months as we at Laars Jandy have put the finishing touches on a new product – one we developed by listening to our customers and, in fact, by working directly with them.

It's a simple concept: Sit down with pool designers and builders – people who succeed because they have an intuitive, immediate sense of what their customers want and need – and get their ideas about products they want.

In other words, this experience saw us put into practice what we preach about listening to customers: We have institutionalized the principle, and we demand that our engineers, designers, and product planners include the feedback of our customers – the pool professionals – as part of the design process.

Let me illustrate with the story behind an upgrade for one of our products. Believe me, it would have been easier and less expensive if a few

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And you think, how could he have been so blind? What was he thinking? Doesn't he see that his approach drives customers away?

The lesson to be learned from this story is simple. It's taught in all the business schools, at countless seminars and innumerable conferences, and it boils down to one big thing: *Listen to your customers!*

APPLYING THE LESSON

That message may seem trite after having been repeated so many times. But it's some-

of our engineers had just sat in the back lab and come up with some new features, repackaged the device, and we started selling it. Instead, we embarked on a long (almost arduous) path of including our customers in the process.

It's a story worth telling.

In May 1998, we were in a meeting with the founders of the Genesis 3 Design Group when they asked us if we were ready for a facelift of our Aqualink RS control panel. We listened, and after some discussion it was determined that the focus of any re-design would be to make the panel blend in with other switchplates throughout the home.

Basically, the Genesis team wanted us to reduce the obtrusiveness of the device, use fewer buttons, and have only one control panel for all the models offered. We listened, and listened some more.

WISDOM GAINED

Before we were done, the design process had been through six sketches, countless hours of discussion and study, numerous phone calls, three foam models and a lot of air miles. What made the collaboration unique, in my opinion, is that a group of customers/builders stayed with us from beginning to end of the project. Along the way, we developed a mutual trust: They knew we would listen to them and respect their ideas – and vice versa.

Each stage of the development created more and more innovations. In the beginning, the

new product had 10 to 15 features that went beyond the existing model. By the time we were through, the new control had incorporated more than 30 significant changes.

This concept of design collaboration makes so much sense, but it's clearly a tough program to put into practice. It can take more time; it can involve a lot of give and take; and, as we found, simply coordinating meetings can be complicated. But we also found that the designer/builders really do know what consumers want – and that their judgment can be trusted.

This effort has had two great outcomes: First, we exceeded our customers' expectations. Second, consumers/pool owners get a product that will delight them and make it much easier for them to enjoy their pools every day of the year. The happy result: *more pool sales!*

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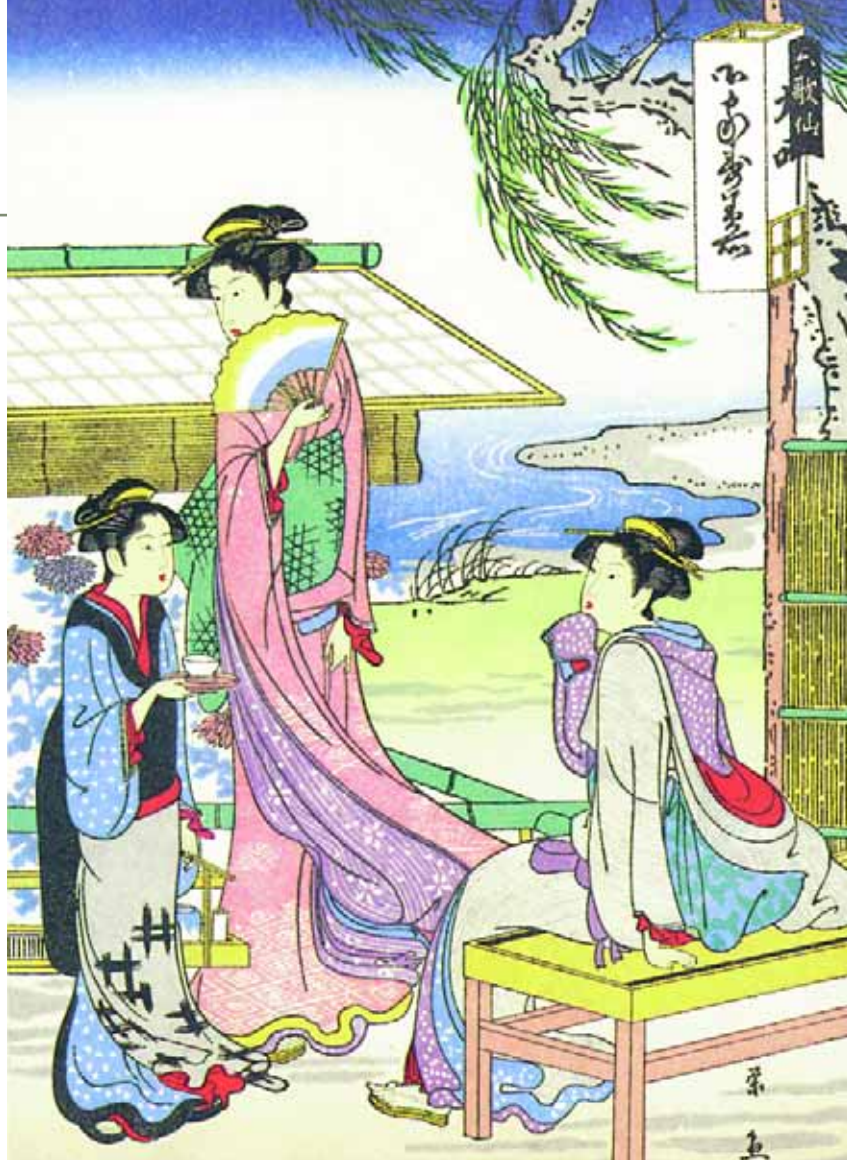
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A lush garden scene featuring a small stream with a bamboo bridge. The bridge is constructed from several light-colored bamboo poles. The stream is surrounded by dense green foliage, including ferns and plants with small yellow flowers. The background shows more trees and a mossy ground. The overall atmosphere is serene and natural.

Back to the Garden

As a design concept, Japanese gardens know no cultural or geographic borders: Elements of this style of garden design have been exported throughout the world to shape exterior spaces of all sorts in both private and public settings. Here, an expert in gardening and landscape design discusses the underlying principles of Japanese gardens, defining ways in which this simple approach to designing space can be put to use across a spectrum of applications.



The gardening impulse of the Japanese is truly ancient. In times before recorded history, sacred outdoor spaces around Shinto shrines and Buddhist temples were arranged according to this design vision. And through more than 1,000 years of recorded history, gardens have been created and refined by priests, warriors and emperors alike in spaces both public and private.

The style isn't original in the strictest sense: In many ways, the gardens of Japan find their sources in Chinese gardening styles and landscape painting. But the Japanese developed and refined their borrowings to fit their own national taste for subtle naturalism and elegant rusticity. The result is an amazingly coherent and distinctive landscaping style that now can be experienced at hundreds

of public gardens in Japan.

The nice thing today is that you don't have to live in Tokyo to appreciate Japanese gardens – or to incorporate their principles into your designs.

In fact, garden designers around the world now use the obvious elements of Japanese gardens – the stone lanterns, gravel and clipped azaleas – in naturalistic and asymmetrical settings of all shapes and sizes. In some cases, the total look of the garden is Japanese; in others, its principles are used to complement or enhance a garden space of any other style, from formal or contemporary to English country or Mediterranean.

There's a flexibility to the style that makes it work across all these lines. Let's take a look at the basics to discover why this is so.



SMALL IS BEAUTIFUL: No matter how small a Japanese garden might be, there's always room for a small basin to bring the sound of moving water to the setting. These basins come in all shapes and sizes – another case where the flexibility of the style lets the designer exercise his or her creativity and spirit.

FRAME THAT VIEW

One of the cornerstones of Japanese garden design is an integration and connection of interior and exterior views. Japanese homes open out to gardens, and garden vistas are carefully crafted for access from every room.

This access is made easy by the fact that Japanese houses are of post-and-beam construction, which means the spaces between the posts can be filled with wooden panels that slide open to reveal floor-to-ceiling garden views. In effect, the garden decorates one wall of the room, just as the interior walls are decorated with painted paper screens.

Some of those views are close-ups: At Sesshu-in, a famous 15th-century garden in Kyoto, a small garden crowds up to the edge of a veranda. Enclosed by a hedge on one side and a bamboo "sleeve fence" extending three feet out from corner of the building, this small area is only eight or nine feet square – and is densely detailed with stones, moss, ferns, podocarpus and a beautifully tiered camellia as well as a carved stone lantern and a tall water basin.

Other garden views are designed as panoramas, including large spaces running along the long side of a meditation hall or living space in a private residence. These larger gardens are often constructed in three or four planes.

As in Chinese painting, the layering of these horizontal planes gives a sense of depth and complexity. Closest to the building is the *foreground* plane, often an expanse of raked gravel or the edge of a narrow wooden veranda that surrounds the building. Next, the *middle ground* may contain important stonework, a small pond or a symbolic tree of some kind.

Moving farther from the observation point, the *background* layer may contain a waterfall or other source for the pond or, in a dry garden, consist of a grove of bamboo, a cryptomeria forest or a wooded hillside merging into the natural scenery. Added to these is a fourth optional layer, the *shakkei* or "borrowed scenery" of distant mountainsides or even a neighboring pagoda.

In addition to views from indoors out, visual compositions are framed in the openings through roofed garden gates



Japanese gardens are prized for their splendid use of water
— always presented in its most natural guise, whether large or small.

and through windows in walls and buildings. Windows are few and they have distinctive shapes – round, rectangular or flame shaped as in Buddhist temples – and come with sliding shoji screens to reveal or conceal what lies beyond.

The famous round window at Genkoan, a Zen temple in the Kyoto hills, shows a small close-up arrangement of trees and stone that is part of a larger garden that can be seen in its entirety from a nearby tea room. At the famous Silver Pavilion, a flame-shaped window frames a hillside of maples, brilliant in their fall colors.

CHOREOGRAPHED SCENES

Like Japanese gardens, many outdoor

spaces in the United States (and particularly those in warmer climates) are “used” most of the time by being viewed from indoors. Any such installation can benefit from the same sort of careful attention to sight lines, shapes and sizes of windows – and by designing the area so that major elements (pergolas, specimen trees, sculptures and watershapes) are placed directly in view of the windows or along pathways.

In this sense, the Japanese garden designer choreographs the visitor’s experience by, alternately, *revealing* and *concealing* views. The most common device for this is the placement of a wall that encloses the garden space, setting it off as a

place apart. In large gardens, these walls are often massive, rammed-earth constructions with a plaster finish and glazed tile top; in residential gardens, all it might take is a rustic fence made of boards, or perhaps a dense, clipped hedge is used. These are usually four to five feet high – just high enough to conceal the garden, but low enough to reveal hints of treetops or roofs.

As the visitor enters the garden, typically through a formal gate, the garden-er chooses what will be seen first. The branches of a maple tree may sweep down to obscure an uphill view that opens out with a few paces. Or tall hedges may turn a path into a tight, dark

Paving the Way



The use of stone and paving is crucial to Japanese garden design.

Natural stone and hewn granite are often squared off on two or three sides (rarely four) and then arranged in infinite combinations and patterns to create paths or stone carpets. The width of these paths and the regularity of the stones change as the paths proceed from the street through entry gardens into inner sanctums.

Such a path might start out with a width of four feet and be made of hewn granite with tight joints. As it turns and proceeds through the space, it may narrow to a width of 18 inches, becoming more rustic and featuring irregular stones set wide apart. The stones themselves may be set in tamped earth rather than mortar, showing one or two inches above the ground to communicate a sense of their heft and weight.

In other words, it’s an amazingly flexible, adaptable style – and one that can be applied in gardens anywhere on the planet.

The most famous element of Japanese paving is the *stepping stone*, which first ap-

peared in “tea gardens” of the 16th century. As the art of tea developed, gardens were designed for guests to walk through on their way to the teahouse and were designed to foster an appropriately meditative mood. By setting the stones at irregular distances, the garden designer forces the stroller to be mindful of where each footfall is placed, thus transforming the process of walking to a form of ongoing meditation.

This same, slow-down/speed-up rhythm can be used in spaces of all types. A wide path of concrete, mortared stone or brick allows visitors to move quickly without looking at the ground. But they’ll slow up when gravel is underfoot, or when stones are set in soil and the joints are planted with creeping herbs. Narrow pathways, stairs and stepping stones slow down traffic, while a large stone or paved landing suggests a pause for a look around. This is a great place to add a bench or chair. By working with the changes in speed and rhythm, the designer can emphasize certain views and downplay others.

— E.N.F.



FLEXIBILITY AND GRACE:
Bridges are a prominent feature in many Japanese gardens and come in many shapes and sizes, from sweeping wooden structures to simple stone arches. Here are three unusual ones: You might not be able to borrow these designs directly, but the daring forms can inspire and be adapted for edge treatments, footpaths and decorative touches.



canyon, creating a sort of “scenery deprivation” that will heighten the thrill of the broader view the visitor encounters at the end of the trail.

As a corollary to this rule of conceal and reveal, footpaths in Japanese gardens never go directly to their destinations. The familiar American-style walkway, perpendicular to the sidewalk and marching straight up to the door, is not a part of the Japanese tradition. In the typical entry to a garden of a residence or a minor temple — a small, shallow space, no more than 15 or 20 feet deep — the visitor steps through a roofed gateway onto paving that slants to the left or right.

This pathway might even split in two, as a Y shape. Here, the triangle between the arms of the divided path will be filled with something eye-catching — perhaps an old pine tree, some interesting rockwork, a waterfeature or low-growing bamboo.

Even if the pathway starts out straight, it may make a series of 90-degree turns before it reaches the true entrance. In this sort of “stroll garden,” gently curved paths dodge out of sight behind mounded soil or billowing shrubs, or veer off at an angle through a gate. Stepping stones zigzag toward unseen places between hedges.

This device of the indirect path and the hidden goal has several aesthetic and emotional effects: It heightens the viewer’s sense of mystery and adventure in the garden while focusing attention on details of stones, plants, light, shadow, and water. This makes the garden seem larger because so much more of it is fully experienced and appreciated.

SMALL WATERS

Japanese gardens are prized for their splendid use of water — always presented in its most natural guise, whether large or small.

On the large scale, imperial villas overlook enormous lakes that once were used for boating parties, while many temple gardens feature sizable ponds with symbolic “islands of the blessed.” But even these large gardens feature special ponds and streams that are small enough in scale for use in home gardens.

Some of these small ponds suggest natural springs. At Ryoan-ji, site of a famous 15th-century rock garden, there is a beautiful small pond tucked up against a steep hillside, presented as if fed by a runoff or by a natural spring. Overhung with vegetation, this watershape offers a simple and pleasing counterpoint to the stones and gravel found on the opposite side of the abbot's quarters.

Make no mistake: Brooks and streams used in Japanese gardens are often *amazingly* compact. For instance, the 17th-century garden at Shisen-do, a Kyoto hermitage for a samurai who retired to a life of art and Zen meditation, features a tiny rivulet that runs along the edge of the veranda that is just 6 to 12 inches across and only 9 to 10 inches deep. This ribbon of dark, shining water meanders between rocky banks planted with grassy sedges and mosses, refreshing and charming those who sit next to it. Similarly, the broad sheet of water and wide flat streams at Murin-an, a garden built in 1896 for a government official, are bright and reflective – but surprisingly shallow, a mere 1-1/2 inches deep in some spots.

The smallest waterfeature in a Japanese garden is the *chozubachi*, the ceremonial water basin, which is often fed by a bamboo spout. These basins come in several forms, from low, horizontal rocks to taller granite columns or upright natural stone fitted out with man-made hollows for water. Whatever form they take, these small vessels hold a mere 10- to 12-inch circle of water that does everything a larger lake or pond does: They reflect the sky, the moon and tree branches and form the perfect spot for placing a single white camellia or floating a ruddy maple leaf.

Along with the sparkling reflectivity of the water, the Japanese gardener focuses on and takes advantage of its sound. We hear streams that whisper, gush, chuckle or chortle, all of which depend on how stones are arranged in the riverbeds. Often, running water is heard before it is seen, thus separating the two sensory impressions and heightening each – an effect that's easily accomplished in any kind of garden space.

BREAKING DOWN BARRIERS:

The designers of these spaces had a special sensitivity to edges as transitions from water to land. Again, Japanese-garden style isn't about right ways to do things; rather, it's about finding a solution that works in the setting and reinforces an overall sense of tranquility and beauty.



GREEN ON GREEN

American and English gardens, particularly those of the 20th century, are generally concerned with creating color effects by using rich palettes of flower hues as well as colored and variegated foliage – not to mention all the possibilities of the hardscape surface colors and water-shapes.

By contrast, the Japanese garden is a symphony of green. The ground is often a lumpy carpet of moss, shading from yellow-green to grass-green and tinged rusty in places or splashed with gray lichens. Out of the moss and lichens rise the vertical stems of bamboo or the columns of small pines. These are the “bones” of the garden, present through summer’s heat and humidity and the cold, wet snows of winter.

It’s not that flowers are shunned in the Japanese garden. We find cherry blossoms in spring, irises in July, hydrangeas in September and brilliant maples and ginkgoes in fall. But these come and go amid an enduring greenery, creating an effect of transition in the midst of great tranquillity.

Beyond these visual specifics, the great tradition of the Japanese garden is the underlying philosophy: These spaces are sanctuaries of quiet and repose. They are places to sit and stroll and enjoy the fullness of the present moment while sensing a connection to the past and future.

The beauty of this approach is that it can be applied using a broad range of plants and materials and in sizes ranging from postage stamps to woodland parks. Plantings most traditionally associated with Japanese gardens need not be present to create a sense of discovery and tranquillity. Because of this tremendous flexibility, the designer can incorporate indigenous rocks, plants and scenery while creating a space that is at once inspired by Japanese design, but vested with the beauty of the surroundings.

It may not be Kyoto, but it’s still a great place.



INDIRECT ACCESS: Japanese gardens tend to prize indirect approaches, a sense of options and a joy in discovery. As you approach this “fork in the road,” you can move in one direction where you might see the water basin; take the other path and you might only hear a trickle of water flowing into it. The stepping stones add to the meditative quality: You have to pay attention, size up each stone and consider where each step takes you.

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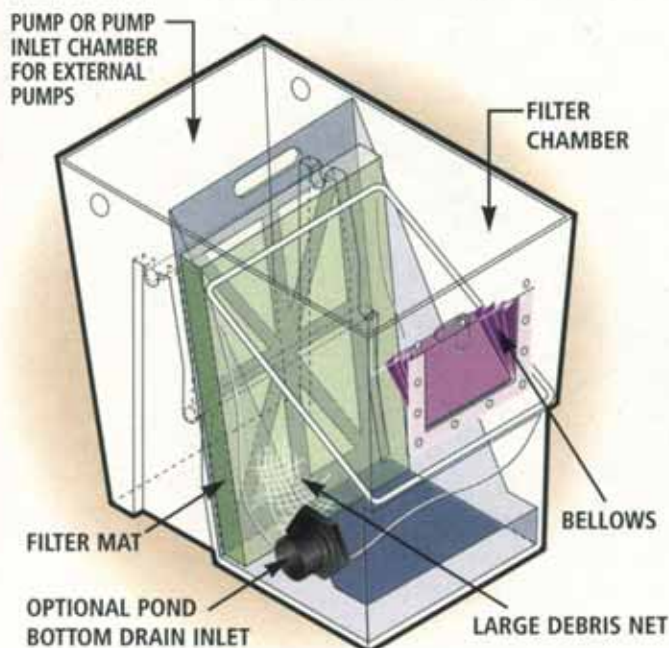


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formance to which more and more pool designers
and builders are striving these days – including those
featured in this pictorial. Beyond skill and talent, what
these professionals have in common is that all are
graduates of the Genesis 3 Design School.*

Good pool design isn't something that happens by chance.

It's the product of a mental discipline applied to the entire setting, from one end of the yard to the other. It's the result of an over-arching vision that incorporates the watershape as a desirable component in a whole tapestry of textures, traditions, shapes, surfaces, highlights, spaces, contours and lines that please the eye, gratify the soul and bring a smile to the face of the observer.

Perceiving this integration is often intuitive, but you can tell when it's been done right. You also can tell when the mark has been missed and can spend minutes or hours (or days) unraveling and considering everything from severe challenges and missed opportunities to lapses in focus or simple errors in taste and judgment. If your head's in the right place, you'll probably learn more from the problem pool than you will from the gem.

Putting pool-industry heads in that right place is part of the thoughtful, reflective approach to pool design offered in the Genesis 3 Design School, which has convened three times and has now touched the sensibilities of more than 75 designers and builders. While school is in session, participants are immersed in an ocean of information on design principles, technical issues, presentation techniques and, perhaps most forcefully of all, on attitude and mind-

set. The basic message: Every pool can be special, appropriate and expressive of the highest standards of craft and excellence.

WORKS IN PROGRESS

The development of a design "style" isn't something that happens overnight: It emerges and evolves with time.

Capturing a stage of that evolution is the motivation behind this pictorial, which features the current work of a selection of graduates of the Genesis 3 Level I Design School. The images on these pages constitute a baseline of sorts — a look at the work of individual designers who have opened themselves to the Genesis philosophy.

Some of that work is outstanding already, either in whole or part; some of it reveals the designer's room for growth. In all cases, however, the projects are offered by pool people who have a growing sense that their work is about more than dropping a watershape in a yard.

We'll check in with these builders from time to time in years to come to see how their learning experiences at the Genesis school and elsewhere have shaped their sensibilities and influenced their work.

Steve Swanson • Genesis 3 Design School • Level I • September 1998 • The Pool Company • Clayton, California







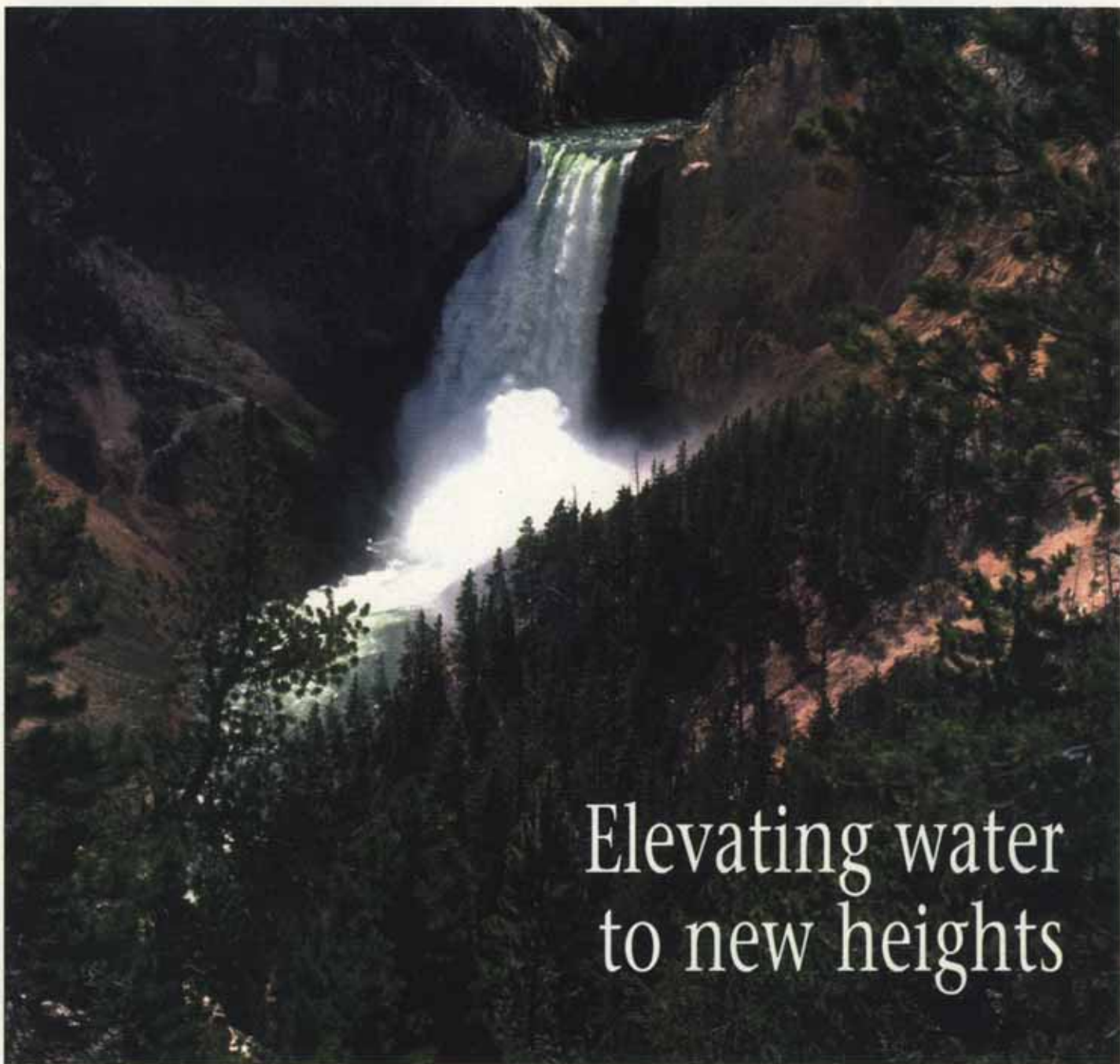
Michael Nantz • Genesis 3 Design School
 Level I • March 1999
Elite Concepts • Denton, Texas



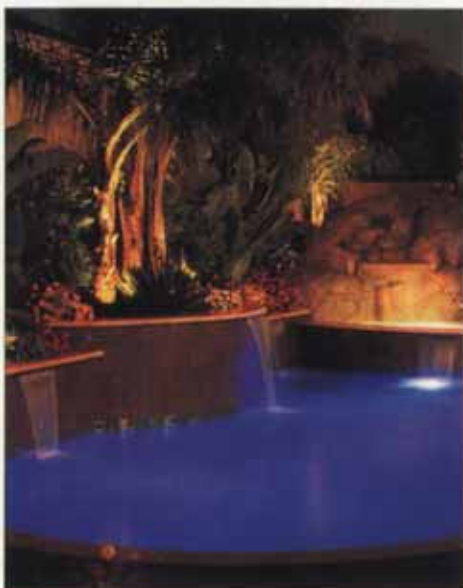


Alexis Henderson • Genesis 3 Design School • Level I • March 1999
Greg Ginstrom • Genesis 3 Design School • Level I • March 1999
Premiere Pool Co. • Melbourne, Florida

Continued on page 42
WATERSHAPES • DECEMBER 1999



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Continued from page 23



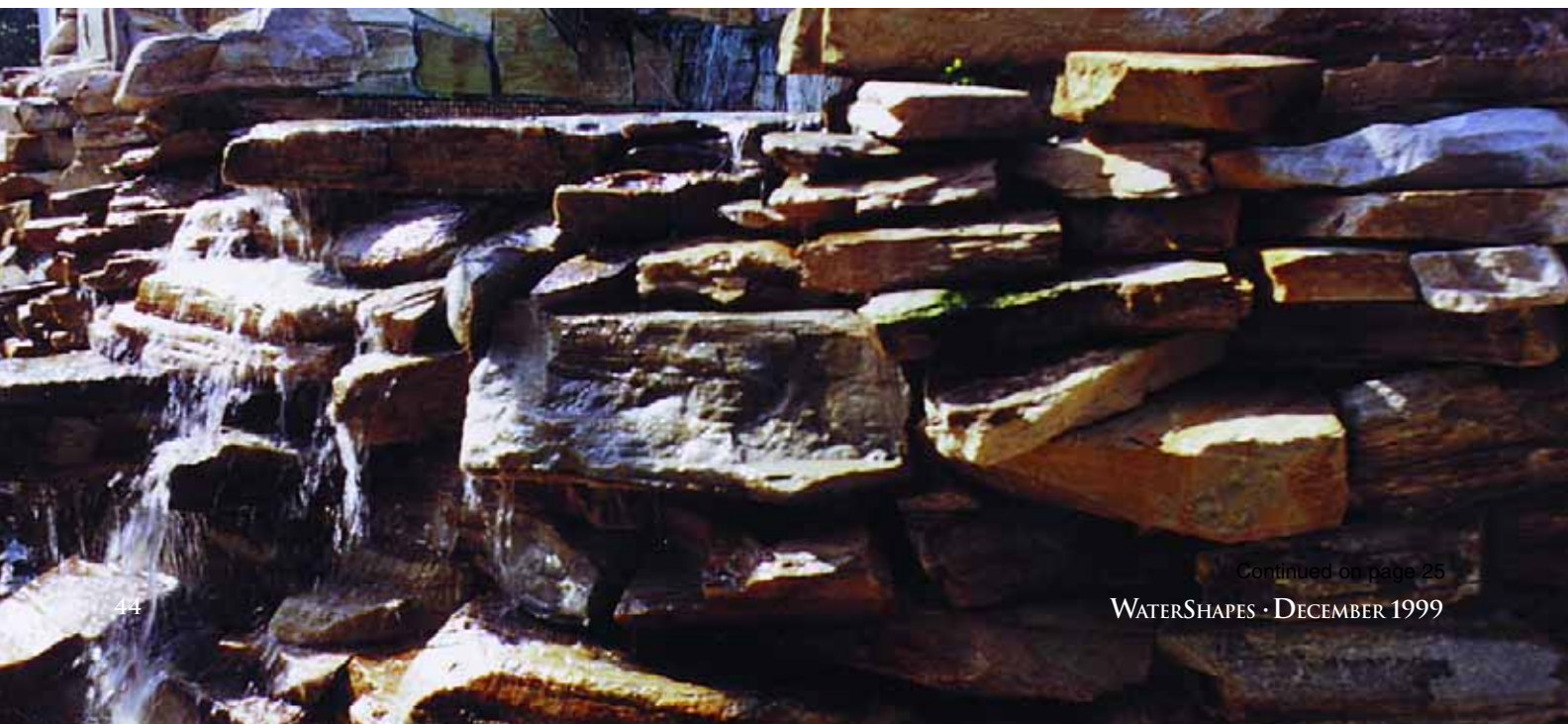
**Douglas J. Hackl • Genesis 3 Design School
Level I • September 1998
Hackl Pool Construction • Lake Worth, Florida**





Richard Terry • Genesis 3 Design School • Level I • September 1998
Kurt Schlicht • Genesis 3 Design School • Level I • September 1999
R.T. Enterprises • Key Largo, Florida

Continued on page 46



Continued on page 25

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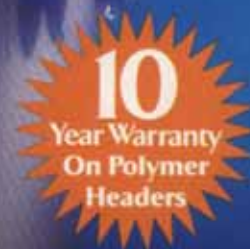
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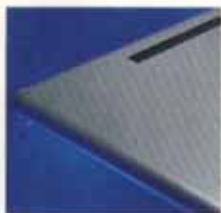
Robert Aman • Genesis 3 Design School • Level 1 • September 1998
Genesis 3 Construction Superintendent School • May 1999
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Jeff Norton • Genesis 3 Design School • Level I
March 1999 • Sunset Pools and Landscaping
St. George, Utah



David Rowean • Genesis 3 Design School
 Level I • September 1998
Yankee Aquatech Pools
 Franconia, New Hampshire



Where Genesis Meets WaterShapes

When the Genesis 3 Design Group emerged early in 1998, Brian Van Bower, Skip Phillips and David Tisherman began their pursuit of a formidable pair of missions: to become the international resource for higher expectations in watershape design and to take the leadership role in the refinement of hydraulics, structures and cosmetic innovations.

WaterShapes also surfaced early in 1998 in preparation for its first issue in February 1999, and from the start we've felt an affinity for what Genesis is all about. In fact, we've deliberately cast ourselves as a printed expression of that mission. It therefore should come as no surprise that we've collaborated closely with and drawn freely from the group's founders: Brian has written our "Aqua Culture" column in every issue;

Skip has written on innovative edge treatments; and David has offered multiple articles that define his approach to pool design and construction.

We've also run an article by Michael Nantz, 1999 chairman of NSPI's Builders Council and a graduate of the first Genesis 3 Design School in 1998, and printed articles by design-school instructors Mark Holden, Steve Gutai, Larry Parmelee and Wayne Schick, Fred Hare and Ron Lacher. They've offered a flood of information, with more to come.

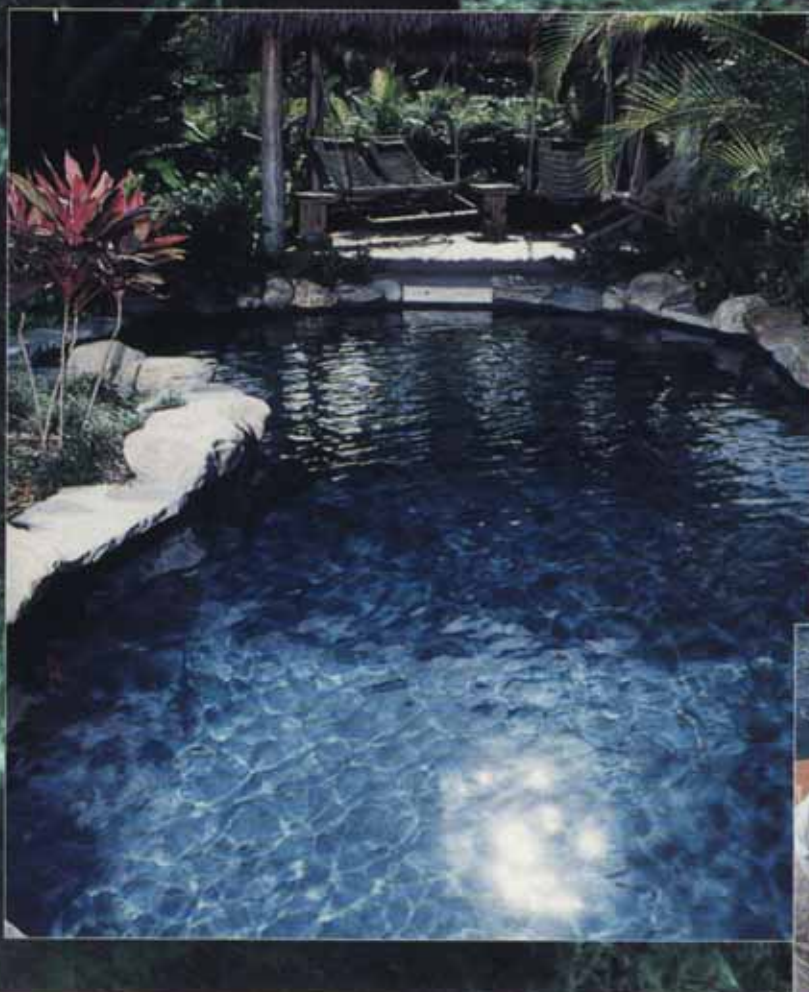
It is our strong sense that Genesis 3 has blazed a trail in a wholly new direction. We are pleased, proud and privileged to share their vision – and to do what we can to communicate these principles to the entire watershaping community.

– Jim McCloskey, Publisher

Continued on page 52

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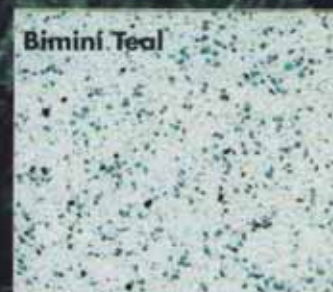
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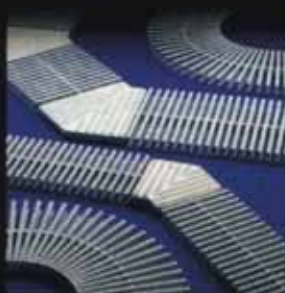
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Designing New Paradigm

There was a time not long ago when the mere thought of pool builders and landscape designers getting together on equal footing and having meaningful conversations about backyard design would have met with skepticism: There is not, it seems, much love lost between the trades. But times are changing, and if the dialogue begun around a table last August is any indication, there's a tremendous amount to be gained by keeping the communications channels wide open.

Last August, more than 30 professionals gathered at a small college in Southeastern Ohio to talk about water and absorb the rudiments of a collective "Philosophy of Design."

Organized by Rick Anderson and Richard Dubé, landscape designers from South Carolina and co-founders of The Whispering Crane Institute, the conference was as much about attitude as it was about the practicalities of designing with water. It was also about passion, about keeping an open mind and about pulling as much inspiration as possible from a broad range of people and places in developing watershapes and their settings.

It was in that spirit that the founders of the Genesis 3 Design Group came to Hocking College in Nelsonville, Ohio, for the event. When Rick Anderson learned about Genesis 3 through *WaterShapes*, he immediately invited them to make a presentation at the Whispering Cranes' annual Philosophy of Design conference, which coincidentally was about water this time around.

The interactions of what was basically a landscaping crowd with the pool builders weren't as immediately productive as some might have hoped. There simply wasn't time for it. But the five principal players in the two groups — Anderson and Dubé along with Genesis 3's Skip Phillips, Brian Van Bower and David Tisherman — all were anxious to say things to one another on the record as the foundation for further communication and future rounds of visionary sharing.

WaterShapes publisher Jim McCloskey asked a simple opening question about education and what it meant to them — then couldn't get another word in edgewise.

David Tisherman: In looking at our industry, the pool industry, there really isn't an educational vehicle that's dedicated to evolving the values of design and construction. Most seminars are about how to fix problems that arise rather than about how to do things right the first time.

It's the only profession that I know that doesn't have good basic or continuing-education programs. There are seminars at trade shows, but most are about service and retail issues. As far as soils, geology, structure, history, design and presentation are concerned, it's just not there — nothing about the construction of water-containing vessels as a craft and as an art form.

Richard Dubé: By contrast in the landscape design trade, there *are* a lot of vehicles out there. But even with all of those programs, we found that there really wasn't information being presented that sought to change the way that people thought about *design*. There wasn't anyone saying that there are better ways to look at what's being done — to think about the philosophy behind the work.

Rather than look at what's going on at a deeper level, in our industry you see the new-plant-of-the-month approach — all very superficial. Seeing this need to go beyond the existing avenues of education was a big motivation for what we're doing. We wanted to go beyond the accepted forms of dialogue.

Rick Anderson: Every year you run into the same classes at the big meetings. You've got the tax stuff, marketing stuff and a little construction stuff, but it's always the same instructors — which is really bad because you're not even getting different perspectives on basic topics. Design people have gotten shoved way into the background, which is really too bad. After all, no matter how good your tax lawyer is or how sound your marketing skills, without good design education, you don't have professionals employing good designs in their work.

Dubé: When you consider the value of the landscaping around homes, you can see the importance of what Rick is saying. When you spoke with real estate people 20 years ago and asked them if landscaping had any value, probably 90% would've said no. But today, something like 60% or 70% will say, "Yes, it does add value" — provided it's good landscaping and that it yields an environment that makes people feel good about being there.

Without a background in design and a sense of the emotion and impact that good designs carry with them, you don't see environments that add value of any kind. It all adds up to opportunities to add real value and leave a positive impression with consumers.

Skip Phillips: What I hear you saying is that education reflects the values of an industry. In our case, everything that



Genesis has done was offered to the industry first. Yet it was turned down flat by NSPI, our main trade association. They didn't come right out and say it, but the implication was crystal clear: They felt there was no market for design advancement in an industry that's based on the lowest common denominator.

Our position has been that, for us as an industry to advance, we had to go where nobody at the association level wanted to go. When we started looking at what's been going on in the landscape trades, especially with designers and architects and the Whispering Crane Institute, what we found was two trades coming at the same challenge from different directions.

Tisherman: There's also a quality issue involved here that has undermined basic design principles. In our industry, many people see the pool as the most important thing, the absolute center of the backyard environment. The point we as an industry have missed is that the

'We desperately need people who can speak the language of both sides of this discussion.'

entire environment has to work together. *WaterShapes* recently covered one of my jobs in which we made the argument that the pool is secondary, that the whole design should harmonize: the home, the hardscape, the landscaping and the swimming pool or waterfeature. From the pool-industry standpoint, we need to come around to the idea that the pool is a *component* of the overall design.

Dubé: That's interesting, because one of the biggest challenges we face on our end is that landscape in the broadest sense includes *many* components and the people who are specialists in the various areas do not talk to each other. Yet these elements must all work together after the trades leave.

If you look at the components as we do, there are trees, the home, the site, pathways, rock elements, water elements – all of them parts of the environment, parts of the same experience in a total, harmonized space. The pool and the landscaping must come together in order to have a positive effect on human emotions. It takes teamwork and starting out with everyone on the same page with the same expectations.

Tisherman: Right, but the landscaper and the pool contractor don't speak the same language, so to achieve what you're talking about requires some type of educational link between our industries. As it is now, landscape people may not know enough about concrete construction, while we may not know things like how close you can get to an established oak before you begin inhibiting its growth.

Dubé: We desperately need people who can speak the language of both sides of this discussion. People in both trades who understand a shared language can advance this dialogue and promote the sort of unity we're talking about.

Brian Van Bower: You're absolutely right. All too often, landscapers and pool builders don't exchange information at all. It's handled as though these are totally separate environments: The pool and landscape are never linked, and the lack of integration really shows. We all know that the most successful projects are those where pool and landscape are married to one another, but we can't seem to make it work on a consistent basis.

Someone asked me yesterday if I usually work with a landscape designer, and the answer was yes. I work with three landscapers, each with a different style and different levels of performance at different budget levels. I work with the one that seems best able to meet the needs of the project and ultimately satisfy the customer's vision. Over time, we've grown to respect each other's ability.

It's a two way street: I take work to them and they bring it to me, and the best thing in all of this is that we get involved at the design stage and there's integration right from the start. This always improves the project, because the elements of the backyard are designed and

planned with a common vision.

A lot of architects are notorious for designing a pool shape on a plan with no details. Maybe they had a concept of something they saw somewhere and they put it on the plan with no idea of how to make it work. There's no detail. It's much better when everyone is involved early and can work with a cooperative spirit. Given the opportunity, we *can* work together.

Dubé: Even if it's not necessarily built all together, it should at least be *designed* together, with everyone involved including the architect, interior designer, landscape designer or architect, pool designer and even an arborist.

Phillips: Unfortunately, when you talk about "pool designers," there really aren't that many of them. What you run into are salespeople who *market* themselves as designers; it's so sales oriented that the concept of true design is a joke. That's why the pool industry doesn't speak the same language as trades that are design-driven. We lack people with the desire, the intellect or inclination to pursue the course of design.

At Genesis, we believe that designers in the pool industry should understand the aesthetic issues involved in good design as well as the technical issues involved in proper structures and hydraulics. It would be great if people in our industry had the ability to step up with these other trades and function as part of the design process on a level that's comparable to what we see in other industries. But until there are design professionals in our industry who are driven by passion and vision, we will continue to face this gap.

Bower: We're working to develop some people with those talents. We're also looking for ways to perpetuate the kind of outlook these people should have, so we're also starting a Genesis membership program and setting it up so that those who want to get in must subscribe to a higher level of performance.

We're looking to create groups of "competitors" in any given area who are working at a higher level. It's not about cornering a market. In fact, I'd love to have Skip and David competing against me in my area: It would elevate the entire trade in my region, which would be

great for customers and for everyone in the industry who cares about quality. And it would be good for me, because it would further validate the level I'm going for in my own work.

Tisherman: When you talk about quality and being qualified, the fact is that our industry is not as advanced as the landscaping industry in terms of design. So we have to play catch up, and the only way that can happen is to set a high standard, knowing full well that only a few will rise to it.

Anderson: It's scary to hear you say that, because from our perspective we see a real deficiency in what's being taught to the landscape trades.

Tisherman: It's all relative, but the fact is, your field has qualified people who have been trained and ours does not, at least in any formal sense.



'It's much better when everyone is involved early and can work with a cooperative spirit.'

Dubé: I see it as an evolution, and I think it's always going to be frustrating, because in both trades you're always going to be behind where you'd like to be. When I think back to my state of mind, my level of sophistication and philosophy about ten years ago, it's scary – *and I was proud of where I was then!*

Now, I don't think I'll ever stop learning and raising my own internal bar. And ten years from now, I'll look back on where I am today and be amazed at how much I still had to learn.

Phillips: You just hit the solution, or at least the first step to one: It's about understanding that there is so much to learn.

Anderson: That's true, but it won't get anywhere by itself. As I sit here and listen to this



I think, geez, it's almost 2000 and the two most important elements of the residential backyard are sitting here, just now beginning this discussion! We're so far apart that it seems like it should 1799. To me, this is a ludicrous situation.

Bower: What's so interesting about this is that we're thinking that it's our industry's fault and I gather that you're thinking that it's yours: We're thinking that there aren't pool guys out there able to handle it, while your side apparently doesn't have all the answers, either.

Anderson: The way the process plays out in common practice is that the landscape designer comes in after the pool guy has totally destroyed the backyard. There's the shell with some water in it, surrounded by a ribbon of really bad coping. The pool is either crammed up against the back door or it's right in the middle of the yard, destroying any sense of continuity.

'It's almost 2000, and the two most important elements of the residential backyard are sitting here, just now beginning this discussion!'

Fisherman: You just hit the situation right on the button. The problem with this whole thing is that the pool builder is the one who can cause the most permanent damage: You can't just dig up a shell and move it where it belongs.

Basically, it's the responsibility of the pool designer and contractor to ask questions about how the pool is going to integrate with the landscaping and the site and the architecture of the home. As a designer and builder, I absolutely need to know how what I do may impact the landscaping and see what I can do to accommodate the overall environment with my designs. The typical pool contractor won't go there because it introduces the notion that the cus-

tomers is going to have to spend more money to complete the backyard picture – and it's money the pool company won't collect.

Dubé: From our perspective, I get called in as a landscape professional to look at the *entire* environment. If I'm the initial person involved, one of the first things I ask is, "Where do you want water in the landscape?" It's not "Do you want water?" Rather, it's *where* and *in what form*?

I feel a responsibility in being able to work with a contractor or designer in terms of integrating what they do with the rest of what's being done. I don't dictate what the pool is going to be like, although I may offer suggestions. The point is, we work together as a team.

Bower: I agree. The responsibility exists on both sides. If I get called in to look at a pool design and don't ask about what's happening with the landscape and talk with the right people, then I've failed in my mission. From the landscape side, if you get called onto a job and the customer asks for a killer watershape, I think the landscape designer has a similar responsibility to find the right resources, if they're needed.

There are no quick fixes. In a perfect world, I suppose that every site development would be coordinated through the project's architect. As it is, there are just so many intersecting areas in which one or more designers or contractors can work hand in hand. It's often simple stuff, like putting in irrigation lines at the stage where all the plumbing is going in for the pool or waterfeature. Even this simple step means the landscaper doesn't come back in when the pool's finished and re-dig trenches or work around existing structures.

We have a shared responsibility to address these issues and take as much as possible into account. In projects where nothing is being coordinated, the homeowner suffers or the project is degraded.

Anderson: That's a problem I see all the time, because no one's really in the practice of identifying and solving these issues ahead of time. Around the country, both pool people and landscape people butt heads, get in arguments or just avoid each other completely. What happens then is that the land-

Continued on page 62

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scaper comes in and fixes some mess left behind by the pool contractor, or the pool builder comes in and cleans up the landscaper's mess.

Dubé: It's a very difficult process when you bring strong, talented people on any project – until you have respect.

Bower: Absolutely. It all boils down to respect. Once you have respect and have worked together a couple of times, then it becomes very smooth.

Anderson: So we've identified the problem and five of us are working individually toward better things. Great! The question is, what's the process that leads us to a more enduring, broader-based solution?

'In order to execute someone's design, you have to understand their vision and share their passion on some level.'

Phillips: The fact is that the process is under way. You have a Whispering Crane "family" developing solutions and sharing them within the landscape trades. We have a Genesis "family" developing on our side, and I think we're all working, simultaneously, to foster respect for each other's trades, strong suits and attitudes.

Individually, we know the problems and are developing solutions. I believe as well that our trades should see the opportunity that comes with developing mass-scale solutions. That can never happen fast enough for some people. But we have to identify ways to talk to each other, perhaps in small ways at first. For those of us sitting around this table at least, we've gotten a fair start.

Tisherman: Unfortunately, you're rolling the dice every time your work with a differ-

ent pool builder. It's frustrating, even debilitating. One of the goals of the Genesis family is to identify a group of builders who are striving to upgrade their work. That's a long process, but ultimately, if you want good, we'll give you good – or better. At least, that's our goal. And we have the feeling that it has to start with a very small group of people at the very top.

The needs are defined and the programs are in place. Now we're getting ready to go outside the industry to promote Genesis to people who want qualified and exceptional builders and projects.

Dubé: There are a lot of sheep and few shepherds. You want to train the shepherds.

Tisherman: And there are good reasons for us, as groups of like-minded people, to have seminars and involve each others' people in them. Maybe it's time for some people in your group and our group to begin to interact.

Dubé: Among the things that could be brought out in a symposium like that would be specific ways our trades can work together. Perhaps a session on conflict resolution could open people up to an interactive mindset when it comes to initial planning. Whatever the case may be, there needs to be an outline of how our trades can work together within the context of a job. At that point, we can begin to share our principles of design.

Phillips: It always comes back to design. That's so important, because in order to execute someone's design, you have to understand their vision and share in their passion on some level. When poorly executed, even great design suffers, but it never flips completely around so that well-executed bad designs are desirable. There absolutely has to be a connection between designers and the contractors who are asked to execute their visions.

Anderson: So here we are, five guys with vision, and if we really care about the way the rest of the world lives, then we'll make it happen. A joint school may not be the way to go, but it would be great if we could figure out a way to bring pool designers and landscape people together.

Dubé: I think we should look at this in practical terms. For example, if there's one area where we definitely need to consider cooperation, it is in communicating the importance of working with an arborist.

In looking at trees and other large plantings, there's a lot that should be done in advance to prepare a tree for what's coming in, and there needs to be communication about what the steps are. We see this happen so many times where pool builders have a total disregard for trees. And it's not because people hate trees; rather, it's because they don't understand the biology of trees and don't know what trees will tolerate a great deal of stress and which will tolerate almost none. They don't understand that some trees take five years to die once they've been disturbed.

Phillips: If I could sit in a seminar and learn just that one fact, it would be incredibly valuable. That's a huge value – and it's another sign,

as though we needed another one, that we have lots to talk about.

Dubé: There are so many examples of how a better understanding of this single facet of our work can help the customer. I was called to come look at a tree that was dying. The customer asked me why. I didn't know at first, so I asked questions including "How old is your house?" In this case it was seven years old. So I asked, "How old is your neighbor's house?" It was a year old.

That was the key. The tree was right on the edge of the property, which was right on the shore of a small lake. When the new house was put in, they severed all of the tree's roots that ran through the other property while cutting a drainage line into the lake along the property line. The contractors had no idea what they were doing.

Anderson: I don't see other groups on the



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landscape side lining up behind this sort of movement. There are lots of groups out there, but they just won't do it.

Tisherman: People are going to read this. Some will get mad and reject what we're saying, others will accept some or all of it. None of this will mean anything if people don't have a desire to change. In our work through Genesis, however, we've found at least some people who welcome change.

Dubé: I think you need to consider that there's more than one level in our trades. You have high-end landscape architects and high-end builders, but there's also a mid-range. If we take that group of people, that's where you need to have the greatest impact, because that's where most of the conflict with landscape designers occurs.

Bower: Unfortunately, that mid-range group is the hardest to motivate or stimulate. They don't want to know and don't even know what they don't know. They've been doing it their way for years and they're making a living – and that's all they want to know. This idea we all share of investing in our abilities seems ridiculous to them.

On one level, who's to say that they're wrong? But our problem as an industry is that lots of them make foul pools that make people angry. We think that, eventually, we can turn this around.

the bar is: They refuse to compete on a global level, so how can they say they really even know a bar exists?

If we're trying to develop a new level of expectation, it must begin with greater value in design and construction. That's what we all seem to be talking about: elevating the expectations. At some point in this developmental curve, the client base will drive expectations: Customers will demand excellence at a level that ultimately will lead our industry out of the Dark Ages. But first we have to change the expectations of the buying public.

Bower: Some people have been doing that individually for a long time. Now we want to do it collectively.

Tisherman: When you look at the people who will be buying, the younger generation moving into home ownership, these people have been to college. They are literate, they have computers, they've traveled. The world is becoming more information driven and these are the people who eventually will be in a position to pay for pools and beautiful landscaping.

I truly believe we're going to see the emergence of a much more sophisticated generation of buyers, and they're going to run into an uneducated industry that will generally drive them away. By contrast, builders who are educated and fluent in ideas that matter to these customers will inevitably be better prepared to meet the demand for excellence and sophistication in design and artistic expression.

I once asked a group of pool-industry professionals if they'd ever been to Frank Lloyd Wright's Taliesin, and someone in the front row actually said, "Why should I care about Frank Lloyd Wright? He's dead." That really captures the essence of our problem. How can we speak to sophisticated buyers when our industry is completely uninterested in mastering the craft?

Dubé: I've run into much the same thing. People will ask, "Why should I care about Japanese gardens when I don't live in Japan?" They simply don't understand that Japanese gardens are not about Japan: They're about design.

I think we can all safely agree that this is long-term process, and that we've only just started.

'I truly believe we're going to see the emergence of a much more sophisticated generation of buyers, and they're going to run into an uneducated industry that will generally drive them away.'

Phillips: It may sound arrogant, but we're re-establishing where the standard is. Our industry overuses the term, "raising the bar." The fact is, our industry doesn't really know where

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At some point, designing most any watershape means committing the concept to paper. A good bird's-eye-view plot plan might be enough for imaginative clients who can translate a two-dimensional schematic into a vision of their yard's potential, observes Clint West, but that's asking a lot. Instead – and where the budget makes it sensible – why not present your client with a full-color, three-dimensional rendering and use the power of the image to everyone's benefit?

By Clint West & Leah Canon

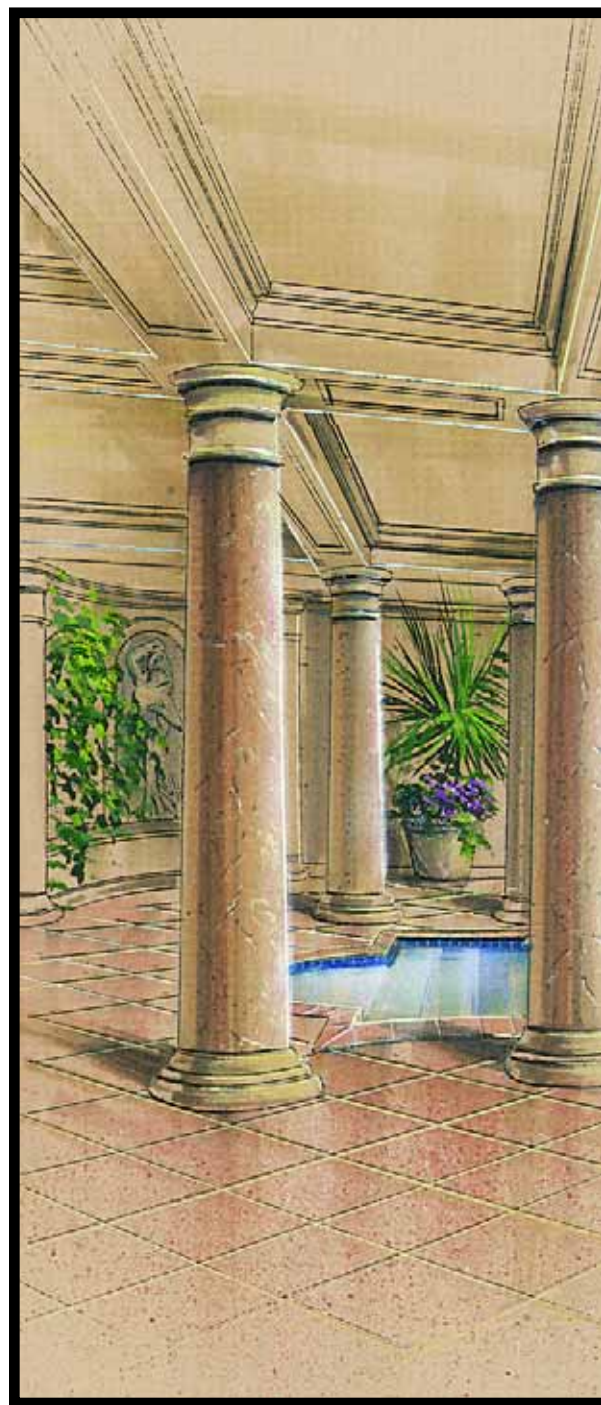
Long before the Bobcats show up, most watershape designers will have used some sort of two-dimensional artwork to excavate their customers' imaginations. Perhaps it starts with old photographs in a portfolio, but it almost always ends up with new drawings that encourage precise, detailed communication between designer and client in a way that can never be fully achieved with verbal descriptions or written proposals.

If done with appropriate detail and skill, a drawing gives designer and client the opportunity to explore the size and shape of the vessel, its location on the property, the materials to be used on the job and the natural elements of the landscape surrounding it.

If that vision is fully articulated and realized in drawn form, then the clients are better disposed to invest in the concept, both emotionally and financially: They can zero in on details, offer suggestions for changes, weigh the relative value of options and truly get involved in the process of developing what is, after all, *their* watershape.

These drawings come in all shapes, scales and sizes, from basic line art to full-color illustrations – that is, from simple plot plans to elaborate, fully realized renderings.

Lots of pool designs begin and end with flat plot plans of varying degrees of quality and detail. But where the budget warrants it, a growing number of watershapers are encouraging their clients to invest (or are investing themselves)



Rendering a

THREE-DIMENSIONAL renderings run the range from the simple to the detailed, but even basic line art gives the observer a fuller sense of what a pool will look like in context than can a two-dimensional plot plan.



Visual Assist



Figure 1: Not all plot plans are created equal. This full-color, detailed version, for example, gives the prospective buyer a good sense of the lay of the land. But even so, its bird's-eye perspective limits its utility in getting clients to visualize the space as they will usually see it.

in full-color renderings. Some are done by the designer, others by graphic artists hired to create the desired image. Whatever the source, the value of renderings is in inspiring clients and helping them *visualize*.

AN EXTRA DIMENSION

Right up front, I want to establish an important distinction between basic *site plans* and *rendering*.

A rendering is a representation in full color of a convincing three-dimensional space – an image on a flat, two-dimensional piece of paper that offers the viewer a well-realized 3-D impression. As such, renderings of the sort seen with this article offer site-line perspective, depth and, often, a subtle interplay of light and shadow.

By contrast, site plans or color boards offer a two-dimensional, bird's-eye view of the property and its features (Figure 1). Such a drawing can be of high quality, but it carries no sense of perspective, no sense of what it really will be like to stand in the yard next to the pool, spa or waterfeature. And rarely do these images yield any significant information about materials or how the project hangs together.

That's not to say that all 3-D renderings are works of art packed with incredible amounts of detail. Many are done using simple line-drawing techniques, but some carry huge amounts of detail, color and texture. Ultimately, the most significant difference between a rendering and a site plan is that the former puts you in the location, often at eye level, seeing the work as you would when it's finished

– something basic, bird's-eye-view site plans cannot do.

In my ten years as a graphic artist, I've rendered many pools and other water-shapes, and I've come to believe that the magic is not only in the communicating power of perspective, but also in the watershapes and the materials and textures that go into them. They let us see concrete, granite, limestone and ceramic tiles of all colors, patterns and reflective sheens. They bring us grass, trees, flowering plants, shrubs and hedges of all kinds. And, of course, we see the water.

In representing these elements, the designer or graphic artist can influence the observer's perceptions by choosing to highlight one or more areas and make them brighter in relation to the other materials, thus emphasizing either their importance or beauty. Or these materials can be only suggested with a touch of texture or color, leaving the overall contours and setting of the watershape as the dominating element.

However the artist manipulates the image, a rendering enables the client to see how the materials and the design work together. As mentioned above, this may lead to changes, additions or other products of inspiration. Obviously, it's far easier to change a 2-D plot plan, and making changes to renderings takes time and money. But on a project with a good budget, it's far easier to negotiate changes on a quality rendering than it is on site.

That may be an obvious point, but it's also an important one in that it speaks to the power of a rendering to define and shape and refine a client's vision and expectations.

SLEIGHT OF HAND

In all of this, of course, I reveal my bias as a graphic artist and as a hired gun. But despite the fact that I do better financially when detailed renderings are called for, I can't help thinking that a three-dimensional rendering's capacity to communicate so far exceeds that of any two-dimensional sketch or drawing that it makes sense to go that way – particularly if the project warrants it.

I also tend to think that hand renderings are superior to anything you can get



Figure 2:
The artist's ability to capture a sense of motion and play of light in water is crucial to the success of watershape renderings, especially when it comes to applying drawing skills to such details as water running over rocks.

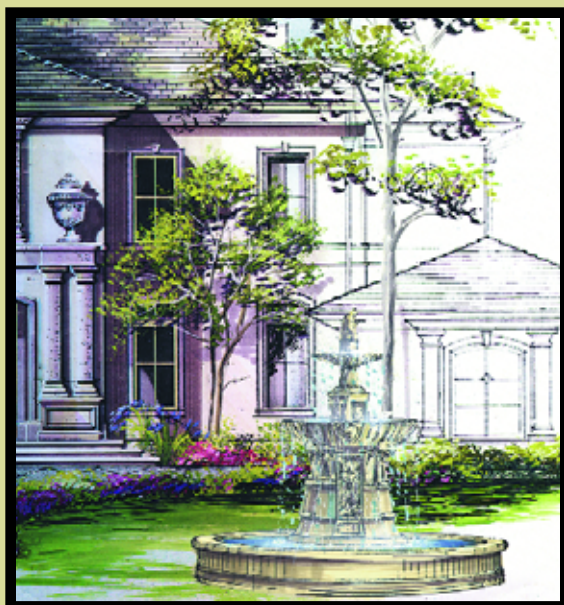
out of a computer. Neither nature nor handwork is perfect – and the world is full of imperfections that are inevitably excised from computer-generated images. Water is not uniformly blue, nor is the sky an even gradation of color, but those simple facts are beyond recognition of most of today's CAD programs and the computers that run them.

Let's consider water for a moment: Think of the fact that it is constantly moving, that it is translucent in some

areas and reflective in others, that the sunlight makes it sparkle in some places and fade to indigo in others. Think about the foam at the base of a waterfall or in a spa – or about water rolling over a rock, as in Figure 2. With careful application of just a few rendering skills, the water becomes far more engaging, more textured, more interesting. Without these qualities, it appears stiff and unnatural – strictly two-dimensional and *flat*.

When you study drawing, you learn that creating these effects in everything from water to plantings and surfaces requires relatively little time – especially when weighed against the value that customers are likely to place on a quality rendering. In the hands of a qualified artist, a few small touches of texture and light can go a long way. And when applied in a detailed, full-color rendering, the effect can be dazzling.

Another advantage that comes with



Artistic Degrees

As demonstrated by the composite image shown on the opening pages of this article and by the one shown here, renderings are developed and offered to customers in three general categories: as "loose line drawings," as "tight sketches" or as "full renderings."

These modes can be employed to suit the customer's budget and expectations. In each case, however, the value of handmade work is evident in the warmth, subtlety and dimensionality of all three stages. That dimensionality is their common bond: The effect is eye-catching and captures clients' imaginations.

To get these sorts of illustrations, you need either to be a competent artist or know where to find one to do the work for you. A true professional artist will be able to accommodate a range of budgets and project sizes, both commercial and residential, and will respond to the needs of the client in terms of size and sophistication of the drawing.

Size is indeed a factor: You'll find, for instance, that residential customers simply don't require large renderings of the sort a commercial developer might need for a boardroom presentation. With that smaller size comes quicker work – and more affordable artists' fees.

— C.W.



Figure 3: A full-tilt rendering is more than a photograph: It's an artist's interpretation of the scene and is filled with highlights, hot spots and gradations of shadings and values that lead the clients' eyes where the designer wants them to focus – in this case, on the watershape and its rockwork.

a living, breathing artist is his or her ability to appropriately embellish drawings, particularly the landscape elements. No freshly planted landscape is as full and lush when it's first planted as it will be eventually: The artist can look a season or two into the future (or further even) and size the plantings accordingly.

An example of how these elements come together can be seen in Figure 3, a rendering I did for Don Goldstone, a pool designer/builder based in Beverly Hills, Calif. Here, I incorporated the existing home and its architecture as well as elements of the surrounding property to give the owner a sense of the scale of the pool and its relationship to the house.

Continued on page 72

On Your Own

It is possible to do your own drawings and renderings. Indeed, some builders use their ability to draw as a way to make more money with their design work and take a good fee away from a project even if another builder gets the nod to do the installation work.

As you work with your skills, you'll find more and more ways that these images take on value for you and your clients. With so much money involved in the purchase of a high-end, custom watershape – and so much riding on the customer's perception of the end result – it only makes sense to develop and adjust the project up front on the affordable and disposable media of ink, paper, vellum and/or blueprint paper.

Ultimately, it behooves both customer and contractor to view the rendering process a critical trial run for the concept. That way, when the bulldozers and backhoes arrive, all parties are reasonably certain the groundbreaking will be the beginning of a dream that will inevitably come true.

– C.W

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Let me use this image to explain how the rendering process works.

ANATOMY OF A RENDERING

In this case, I wanted to attract most of the attention to the pool itself, so I kept the center of the drawing light by adding a white spray of an airbrush to create a focal point, or a “hot spot” as artists call it. Beyond that focal point, I applied the standard drawing formula: For every change of plane, there should be a change of value in terms of brightness, color, texture or tone. I also settled on a single light source and used it to set shadows on all of the rocks and structural elements.

Notice that the birds of paradise in the foreground are painted using lighter colors in areas facing the light source and darker in areas away from the light source. This sort of highlighting is also used

to define the edges of the steps, individual stones, the waterlines and other details. Small trees, faint in color, are painted in a softened background to create a sense of depth.

In terms of overall composition, the linear elements of the home and the stairs serve to pull the viewer’s eye toward the pool – an urge compounded by the hot spot. This centering effect is enhanced by the curving limbs of the plants I’ve used to frame the area.

My starting point for this drawing was a plot plan given to me by the designer. Doing the 3-D rendering would have been impossible without two key steps: First, I visited the site to get the lay of the land, a sense of its light patterns and color saturation and a sense of context. Second, I drew on my knowledge of other projects by this designer to get a sense of elevations, plantings and his capabili-

ties and strengths as a builder.

Make no mistake: This is an imaginary setting, no more than a collection of shapes on a flat piece of paper that have been pulled up to three dimensions. The important point to make here is that the collected shapes are based on the designer’s style and accurately reflect his construction techniques and preferences when it comes to plantings.

My visit to the site and familiarity with his work gave me the information I needed to “translate” a flat plot plan into a rendering in which all of this visual information works together in a detailed, colorful composition that has a distinct focal point, depth and accurate perspective. By intent, the continuity of these elements serves to generate an impression that speaks volumes to clients.

Continued on page 75



Hired Hands

When you employ the services of a graphic artist, it’s crucial to work with someone who understands the nature of your work. Accurately rendering the qualities most important to you and your clients requires first of all that the artist understand that every architect, designer or builder has a different style.

For example, the builder who asked me to do the rendering seen as Figure 3 on page 70 in the accompanying text is well known for waterfalls, rock formations and tropical looks. Not only does this mean that as the artist I have to be good at rendering rocks, it also means that I’ll choose an eye-level perspective that establishes and highlights the rockwork and plantings in context of the entire space.

For designers who include a variety of specialized design features in their work, I’ll often be asked to isolate specific elements of the work in a separate “detail” drawing. Vanishing edges, fountains, spillway treatments, edge

treatments, decking details, steps and elevation transitions are just a few of the elements that can be pulled out for an isolated “mini-rendering.”

So how do you find and hire a graphic artist with the skills you need? It can be trickier than it seems, but a good place to start is with local architects who generate or commission lots of this kind of work.

Once you have a candidate, look at experience and education – and spend lots of time with his or her portfolio. Take your time and take away as honest an impression as you can of the caliber of the work. Look for skillful and appropriate use of perspective and focal points, defined shading and highlighting and overall composition. Look for competent communication of texture and detail. Look at the way changes of flat planes are expressed as changes of value and emphasis.

Ultimately, it’s a subjective decision and a matter of how the work strikes you. It’s generally safe to say, however, that if you like an artist’s work, chances are pretty good that your clients will like it, too.

— C.W.

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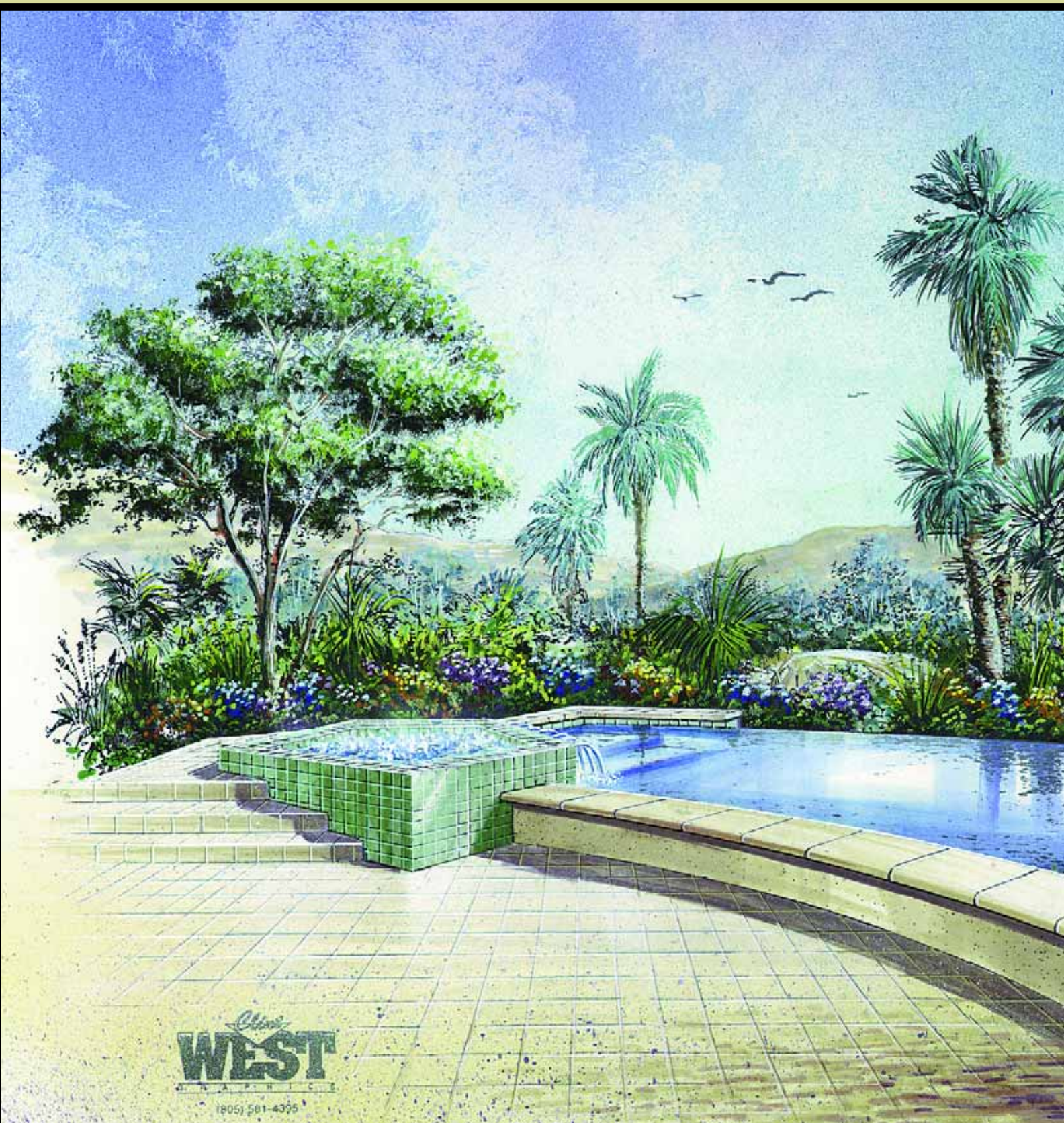
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VISION TO REALITY

Is this exercise necessary for every backyard project? Certainly not, but in cases where the designer needs to completely master the variables, a rendering of this sort has value in advancing discussions and in helping clients visualize the potential locked up in their property. It's a tool – and can be a critical one in cases where budgets ride high and expectations ride even higher.

The project seen in Figure 3 on page 70 has yet to be built. The image seen in Figure 4 has been, however, and should be familiar to readers of *WaterShapes* as the pool David Tisherman designed, built and described in detail in the magazine's October 1999 issue (see "A Gem from Every Angle," page 52). This, too, started out as a flat plan, then became the pen-and-ink drawing seen as Figure 5 before I took out my paints, markers and air-brush and spent a little extra time making it a rendering fit to show the client in a formal (and ultimately successful) presentation.

It was time well spent, I think – and doubly satisfying to me because the finished pool and spa so closely resemble the rendering. *That's* when the work gets satisfying.

Figure 4: This project (left) is now complete, and the thing that impresses me most isn't so much the literal truth of the rendering, but rather the way it captured the spirit and flavor of the beautiful finished product months before it became a reality.



Figure 5: It takes quite a bit of effort to translate a plot plan into a three-dimensional rendering – and even more time and skill to take a pen-and-ink drawing and transform it into the full-color image seen in Figure 4. Both are evocative, but for the right client, why not take it all the way?

CONTROLS FOR EASY AUTOMATION

Circle 100 on Reader Service Card



COMPOOL offers controls for today's pools and spas. Emphasizing simplicity, the company's indoor control panels provide fingertip operation of filtration, heating, lighting and waterfeatures. Programming is done by means of color-coded buttons that are hidden when the unit is not in use. The controls also allow programming for light dimming, spa-side temperature control, auto-backwash, telephone remote control and other special features. **Compool**, Mountain View, CA.

FREE-STANDING SCREEN ENCLOSURES

Circle 101 on Reader Service Card

AQUA-CLOSURE SYSTEMS introduces a free-standing pool enclosure designed to create a higher level of comfort for those lounging at poolside. The enclosures screen out bugs, leaves and other unwanted elements while allowing breezes in. Prefabricated for easy installation, the enclosures are suited to any climate and come in standard and custom sizes. **Aqua-Closure Systems**, Hudson, FL.



SOLVENT CEMENTS FOR PVC PIPE

Circle 102 on Reader Service Card



UNITED ELCHEM offers a full line of solvent cements, cleaners, primers and accessory items for plastic pipe and fittings. Pool-Tite solvent cement was developed with professional installers' needs specifically in mind. Pool-Tite is a fast-setting cement that can be used in wet conditions and tested at up to 150 psi within 2 or 3 minutes of application. The cement works on both flex and rigid pipe and is a blue color that dries clear after 72 hours' exposure to UV rays. **United Elchem**, Dallas, TX.

SMOOTH ROUGH SURFACES UNDER WATER

Circle 103 on Reader Service Card

DRP offers its Aquaglide system to transform or correct the rough outer surface of any pool to a smooth, dense finish. The new AGP-7S does its work under water, eliminating the need for costly pool draining and excessive down time. Pneumatically driven, the units work with the company's diamond-disc system, which removes stock rapidly and cuts the cost of repairing overexposed quartz finishes while creating a beautiful, soft-to-the-touch finish. **DRP**, Delray Beach, FL.



FIBEROPTIC LIGHTING DETAILED

Circle 104 on Reader Service Card

HAYWARD POOL PRODUCTS offers literature on SuperVision, its line of fiberoptic lighting. The leaflet includes information on the cost efficiency and versatility of the lighting, which offers more light output per source. Also included is information on crystal-clear illumination with EndGlow underwater lighting fixtures for dramatic highlighting of spas, stairs, swim outs and caves as well as tips on how to add color to your presentations with SuperVision's wide variety of models and potential lighting designs. **Hayward Pool Products**, Elizabeth, NJ.



WALL-CAP FORMS HIGHLIGHTED

Circle 105 on Reader Service Card

STEGMEIER CORP. offers a four-page, full-color leaflet describing applications for its line of wall-cap forms. Available in five styles, the forms clamp onto the top of a wall and provide for an elegant, seamless finish. Specifications for the concrete and application techniques are included, as are tips outlining the entire process. Also included is a guide to cap profiles. **Stegmeier Corp.**, Arlington, TX.



NEW PUMP FOR MAKING ARTIFICIAL ROCK

Circle 106 on Reader Service Card



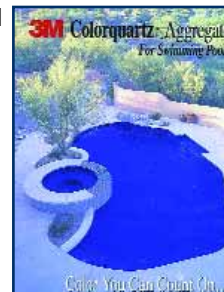
QUIKSPRAY has developed its new *Carousel Heavy Duty Pump* (model #15010TBM-3-GAM) for the spray application of heavy-bodied cement coatings, with or without fibers, for the production of artificial rocks and waterscapes. The pump uses per-

istaltic principles; no moving parts come in contact with the material, which makes for a low-maintenance system. This variable-speed model is powered by a high-torque pneumatic motor requiring a 125 cfm compressor, but electrically and hydraulically driven models are also available. **Quikspray, Inc.**, Port Clinton, OH.

COLORLED AGGREGATE FOR POOL FINISHES

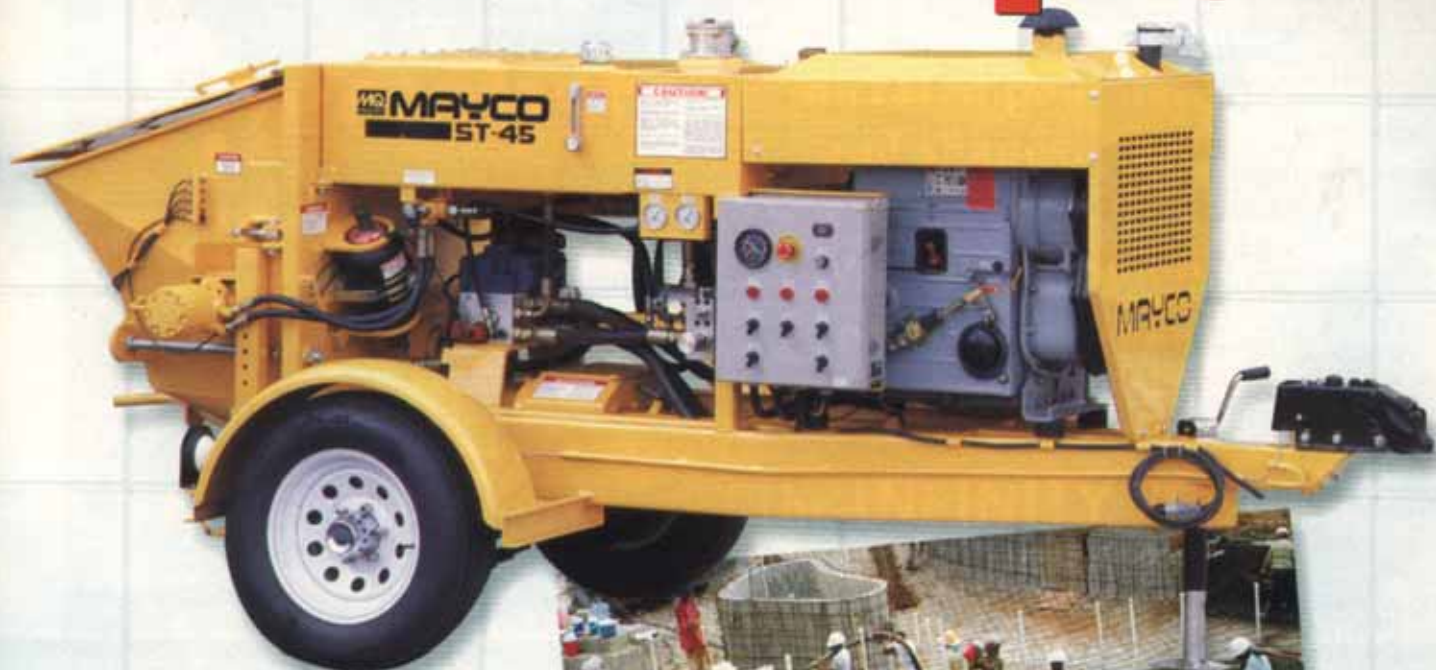
Circle 107 on Reader Service Card

3M offers its Colorquartz Aggregate for pool finishing in an almost limitless array of custom colors. The product has color permanence proved through more than a decade of in-pool use. The finish texture is also customizable, from smooth comfort to sure-footed slip-resistance. Backed by a name customers will recognize and trust, the aggregates come with a ten-year warranty. **3M**, St. Paul, MN.



Continued on page 78

Shotcrete Made Simple.



Mayco's ST-45 is the professional's choice for wet shotcreting applications. Here's why...

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REMOTE MONITORING AND CONTROL SYSTEM

Circle 108 on Reader Service Card



SANTA BARBARA CONTROLS introduces its new Chemtrol PC controllers, featuring true duplex remote operation through standard telephone lines and computer. The remote computer can access the controller from anywhere in the world and display an exact duplicate of the controller screen. Several models are available; one version, the PC6000, offers complete control of water chemistry, balance, heating and filter cycles. Test data are logged and can be downloaded at any time. **Santa Barbara Controls**, Santa Barbara, CA.

SUBMERSIBLE PUMP AVAILABLE

Circle 110 on Reader Service Card



OTTERBEIN BAREBO introduces its Bunker Pumper, a submersible unit featuring a 6-hp engine and wear-resistant propeller. It will run at full throttle for 1 hour on just one tank of fuel and can run dry without harming engine components. The machine offers submerged suction without additional hoses or priming systems and can operate in less than 3 in. of water. **Otterbein Barebo**, Emmaus, PA.

DURABLE PLASTER FINISHES

Circle 112 on Reader Service Card



NORTHERN PREMIX has the answer for those who want pool finishes that apply easily, last a long time and look great – and won't mottle as a result of internal material discoloration. If you don't want to hassle with a long list of job-site additives and want a beautiful, long-lasting finish to complement all the

hard work that goes into creating your watershapes, you need to take a look at Armorcoat. **Northern Premix**, Weston, Ontario, Canada.

COMPREHENSIVE COVER BROCHURE

Circle 114 on Reader Service Card



COVER-POOLS offers its most extensive brochure ever, providing a complete overview of the company's line of automatic and manual safety covers. The 20-page booklet contains more than 60 full-color photographs highlighting new options and application ideas for both the Save-T Cover II automatic system and the Step-Saver manual covers. It also outlines training programs and rapid order processing. **Cover-Pools**, Salt Lake City, UT.

VOLCANIC BUBBLES FOR SPAS, POOLS

Circle 109 on Reader Service Card

MASTER SUPPLY manufactures the Air Bar to make ordinary pools and spas extraordinary by introducing millions of tiny bubbles in an effect best described as volcanic. The system is virtually invisible when installed in the seat or floor or both, and custom fittings make nearly anything possible in custom pools or spas through connections to standard PVC pipe. The Air Bar and its fittings come in white, black or gray. The company also offers design templates and free samples. **Master Supply**, West Covina, CA.



DECK AND UNDERWATER EQUIPMENT CATALOG

Circle 111 on Reader Service Card

KDI PARAGON presents a new catalog highlighting its deck and underwater equipment for competitive and recreational swimming pools. Featured products include starting platforms with large tops, lifeguard chairs with adjustable heights and optional wheels and a full range of diving stands and towers, grab rails, ladders and much more. Interactive AutoCAD data disks are available upon request. **KDI Paragon**, LaGrangeville, NY.



FLYER DESCRIBES FIBEROPTIC SYSTEM

Circle 113 on Reader Service Card

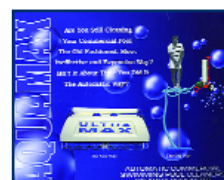
TELEDYNE LAARS/JANDY PRODUCTS offers a single-sheet, four-color flyer detailing its Sheer Radiance fiberoptic lighting system. Designed for ease of installation and maintenance in uses with pools, spas and fountains as well as decks and landscapes, the large-core fiberoptic system has a variety of available colors that can change to fit any mood. **Teledyne Laars/Jandy Products**, Novato, CA.



AUTOMATIC CLEANER FOR COMMERCIAL POOLS

Circle 115 on Reader Service Card

AQUA PRODUCTS has published a tri-fold pamphlet on the Ultramax, an automatic cleaner designed to reduce the effort, manpower and money needed to keep commercial pools clean. Ultramax pumps water through a 2-micron filter as it sweeps the pool, picking up everything from algae to large leaves and more. The pamphlet also offers information on the rest of the company's full line of automatic cleaners. **Aqua Products**, Cedar Grove, NJ.



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OF INTEREST

Continued from page 78

NEW FILTRATION SYSTEM CATALOG

Circle 116 on Reader Service Card



STARK announces a new catalog featuring its line of fiberglass filtration systems for commercial applications in swimming pools, water parks, aquariums, zoos and aquaculture systems. Automatic controls and remote monitoring minimize supervision and maintenance requirements, while system flexibility adds efficiency in supporting peak/off-peak operation. **Stark**, div. of Paragon Aquatics, LaGrangeville, NY.

controls and remote monitoring minimize supervision and maintenance requirements, while system flexibility adds efficiency in supporting peak/off-peak operation. **Stark**, div. of Paragon Aquatics, LaGrangeville, NY.

LIFT SYSTEMS FOR HANDICAPPED ACCESS

Circle 117 on Reader Service Card



AQUATIC ACCESS offers a full line of water-powered and portable lifts to ease access to pools and spas. Several lift models are independently operable and have a capacity of up to 400 pounds. The seats come in blue, green, taupe and white. A free videotape is also available. **Aquatic Access**, Louisville, KY.

NEW PUBLICATION ON WATER GARDENS

Circle 118 on Reader Service Card



AQUASCAPE DESIGNS offers new literature dedicated to helping contractors and dealers succeed and prosper in the booming water-garden market. The publication is designed to bring you up to speed

on the pond business and introduce concepts in designing, estimating and maintaining these waterfeatures to those who have yet to take the plunge. **Aquascape Designs**, Batavia, IL.

Continued on page 82

**Skip Phillips,
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Pebble Technology	Pool & Spa News

TELESCOPING FOUNTAINS FOR POOLS

Circle 119 on Reader Service Card



Fountains for Pools, Tarzana, CA.

FOUNTAINS FOR POOLS offers patented telescoping fountains that transform pools and spas into beautiful fountains during non-bathing hours. Retracting automatically into the pool or spa floor when not in use, these devices are powered by a standard pool pump. Designed for beauty and ease of use, they come in four different spray patterns. A brochure and simple instruction manual are offered for review.

ENCLOSURES FOR HIGH-MOISTURE AREAS

Circle 120 on Reader Service Card

CAROLINA SOLAR STRUCTURES brings 30 years of experience and a track record with hundreds of installations to the marketplace with its high-quality glazed structures. Designed specifically to enclose high-moisture areas, the structures are made of non-corrosive materials: aluminum alloys for high-strength rafters, columns and purlins; polycarbonate roof glazing; and glass sliding doors and windows. Design, engineering and installation services are available. **Carolina Solar Structures**, Arden, NC.



TELESCOPING FOUNTAINS FOR POOLS

Circle 121 on Reader Service Card

KREEPY KRAULY offers Pollywog, the first automatic cleaner-hose attachment designed to purify water. The device contains three minerals, found naturally in mountain streams, that eliminate bacteria, prevent algae growth and stabilize pH through six months of steady service. Capable of treating pools with volumes up to 30,000 gallons, Pollywogs significantly reduce the need to add chemicals. Replacement cartridges are available, and the device installs in seconds without tools. **Kreepy Krauly**, Sanford, NC.



CAPABILITY BROCHURE ON PUMP LINE

Circle 122 on Reader Service Card

BERKELEY PUMPS offers a new, eight-page, full-color brochure on its line of pumps. The company has units ranging in horsepower from 1/2 to 235 hp with capacities from 1.2 to 5,500 gallons per minute and head pressures to 1,740 feet. Applications range from fountains, waterfalls and other waterfeatures to waterparks, irrigation and municipal water treatment. **Berkeley Pumps**, Delavan, WI.



BROCHURE ON STAIN-REMOVAL PRODUCTS

Circle 123 on Reader Service Card

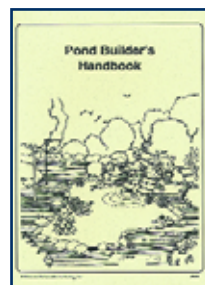


JACK'S MAGIC has prepared a four-page, full-color brochure defining its complete line of products for the prevention and removal of a variety of metal stains from swimming pools and spas. Also included in the brochure is information on stain-testing kits, water clarifiers, filter aids, non-chlorine shock and water-test kits designed for use by professionals. **Jack's Magic**, Clearwater, FL.

HANDBOOK FOR POND BUILDERS

Circle 124 on Reader Service Card

RESOURCE CONSERVATION TECHNOLOGY presents "Pond Builder's Handbook," a 40-page guide to installation of anything from lily and rock ponds to more elaborate koi ponds and garden fountains. The booklet discusses selection of pond liners as well as the plumbing and circulation systems needed to support installations of various types. **Resource Conservation Technology**, Baltimore, MD.



SHELL AND DECK MATERIALS INTRODUCED

Circle 125 on Reader Service Card



TXI has published a flyer describing its Contour line of shell- and deck-construction materials for use in swimming pools and other waterfeatures. The line includes white cement, calcium carbonate, natural pebbles, ceramic aggregates, colored-glass aggregates, color pigments, coping, filter sand, plaster finishing tools and more – all from a single supplier. **TXI**, Dallas, TX.

FLYERS ON POOL-PLASTERING EQUIPMENT

Circle 126 on Reader Service Card

MACALITE EQUIPMENT offers leaflets highlighting its full line of trowels, spike plates, plaster hoses, white rubber boots, nozzles, brushes, rollers, pails, fittings and more, including easy-flow nozzles for pebble application. The company also makes plaster mixers, distributes plaster pumps and has a service department that can handle most plaster mixers and pumps. **Macalite Equipment**, Phoenix, AZ.



Continued on page 84

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Circle 47 on Postage Free Card

DATA SHEETS ON CHEMICAL AUTOMATION

Circle 127 on Reader Service Card



POLARIS POOL SYSTEMS has prepared new data sheets for its Watermatic chemical automation and feeder systems. Four informative, full-color sheets outline the benefits and advantages of individual products – one on controllers and the other three for the G-1000, G-1000A and G-7500 feeder systems feeders, respectively. Each sheet covers general information as well as specifications, typical installation diagrams and basic system configurations. **Polaris Pool Systems**, Vista, CA.

NEW AGGREGATE BINDER IN NINE COLORS

Circle 129 on Reader Service Card



MASON MART is distributing Brookstone Binder, a proprietary blend of cement, pozzolans, pigments and other additives that can be used with marble and limestone aggregates as well as colored particles and pebble-type synthetic aggregates. The product is available in nine colors – white, blue/black, blue/gray, red, golden, plum, black, green and blue – and is

manufactured by Liljenquist Brothers, developers of the Brookstone line of Natural Stone Surface materials. **Mason Mart**, Phoenix, AZ.

STACKABLE COMMERCIAL FILTERS

Circle 128 on Reader Service Card

ASTRAL PRODUCTS is introducing its line of vertical, fiberglass-filament-wound filters to the U.S. market. Featuring non-corrosive construction, the units are available in 42-, 48- and 63-inch diameters and in lengths of 75, 91, 106 and 120 inches. The filters can be stacked, piggy-back style, for maximum space efficiency, and systems are available in either manual or automatic versions to fit any need or budget. **Astral Products**, Jacksonville, FL.



SOFTWARE SIMPLIFIES COVER SPECIFYING

Circle 130 on Reader Service Card

CONSTRUCTIVE SOFTWARE SOLUTIONS announces the release of PoolCover, a computer program that takes basic job information and quickly produces CAD drawings (either with standard pool templates or from A/B points), proposals for the pool owner, manufacturers' measuring forms, order forms and links to manufacturers' production systems. This one-step system reduces or eliminates opportunities for measuring errors. **Constructive Software Solutions**, Clearwater, FL.



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(2) Paid In-County Subscriptions (Include advertiser's proof and exchange copies)	640
(3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution	0
(4) Other Classes Mailed Through the USPS	0
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Total Distribution (Sum of 15c and 15g)	13,750
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PS Form 3526, November 1998 (Revised)

BROCHURE OUTLINES POOL/SPA ENCLOSURE LINE

Circle 131 on Reader Service Card

CCSI's "Garden Prairie Pool & Spa Enclosure" is a twelve page, four-color brochure detailing a full line of enclosures designed to give customers a light, airy garden environment. Color-coated aluminum frames and rafters stand up to the moisture and chemicals from pools and spas far better than conventional construction. Enclosures are available in single- or double-slope configurations and can be freestanding or attached to an existing building. CCSI, Garden Prairie, IL.



NEW SHOTCRETE PUMP

Circle 132 on Reader Service Card

SCHWING AMERICA announces its new WP 301X concrete pump, with capabilities for shotcrete application. In addition to handling a wide range of mixes



with aggregate sizes to 1 in., the unit offers surge-free shotcreting through an easy-to-handle hose. Designed for low maintenance and trouble-free operation, the WP 301X is an all-hydraulic, twin-cylinder piston pump equipped with Schwing's Rock Valve. With 1,100 psi applied to the concrete, contractors can expect pumping distances to 1,160 ft. horizontally or 330 ft. vertically. Schwing America, White Bear, MN.

POOL FINISH FOR NEW WORK OR REMODELS

Circle 133 on Reader Service Card



GEORGIA MARBLE offers Pool Mix as a finish for new installations and renovation work. The product is a mix of white cement with a high quality marble and a

special-particle-size aggregate – the key to a white, long-lasting pool finish. The product also comes in colored versions, in green and the popular black finish. All Pool Mix products are made using the highest quality standards.

Georgia Marble/Consumer Product Sales, Kennesaw, GA.

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POND, WATERFEATURE SYSTEM DESIGNS

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NEW POND SUPPLY CATALOG

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POND SUPPLIES OF AMERICA has just released its 2000 catalog, designed to aid water-garden installers and landscape designers in selecting components for ponds of all sizes. The catalog includes tested products from the best suppliers to the industry and offers tips on specifying pumps and skimmers. Products are ready for quick shipment nationwide from warehouses in Chicago, Los Angeles and Pittsburgh. **Pond Supplies of America**, Yorkville, IL.

GUTTERS FOR USE WITH RIM-FLOW POOLS

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GRATE TECHNOLOGIES has announced the release of a line of custom-made fiberglass gutters for deck-level, beach-entry and wet-deck pools. Manufactured to order for each job, they can be formed into a variety of straight, angle or radius sections. Each gutter is made of reinforced fiber polyester with a 5-oz structural mat for strength. **Grate Technologies**, Naples, FL.

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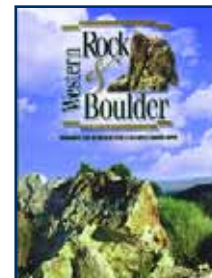
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WATERWORKS INTERNATIONAL offers a new line of fountain nozzles in both bronze and powder-coated aluminum. The Premier Fountain line of nozzles and fittings, along with the company's engineering capabilities, give customers a real advantage in design and execution. The company is particularly well known for the Jumping Jets and Jumping Jewels effects seen at theme parks. **Waterworks International**, Kankakee, IL.

MEDIA KIT FOR BOULDER LINE

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WESTERN ROCK & BOULDER offers a full-color, four-piece kit describing its selection of 1- to 2-ton boulders for use in all types of landscapes for monumental or decorative purposes. The kit highlights the vivid colors available in these mineral-rich boulders and details the fact that delivery is included in the price. **Western Rock & Boulder**, Fallon, NV.

CORRECTION



The photographs seen here were transposed in our October issue, page 28. The image on the left, referred to in the text as B (mistakenly labeled on the image as C), is among the oldest reflecting pools that still hold water. The image on the right, referred to in the text as C (and erroneously labeled on the image as B), is a wonderful, but no longer functioning, 24-seat public restroom.



MAKING CONNECTIONS

The second thing common in those four definitions and another concept that should catch your attention is the use of the terms "connect," "connected" or "connection." We should be able to hear in our mind's ear the phrase: "Grounding is a connection to earth" as well as the alternatives, "Earthing is a connection to ground," "Grounding is a connection to ground" and "Earthing is a connection to earth."

The definitions for *equipment grounding conductor* and *effectively grounded* apply to all of the grounding required around watershapes. Take the main water-circulation pump, for instance: Assume it to be a 2-horsepower, 240-volt unit with a wiring run of 75 feet to the service equipment panel.


(The *service equipment* is the point where the power company makes the connection from their lines to a home's electrical system. This is where the main circuit breaker will be found, along with

all of the branch circuit breakers for the various circuits on the property. This is also usually the location of the electric meter. For our example, we are assuming that there are enough empty circuit-breaker spaces to allow installation of the pool-equipment breakers into the existing service equipment panel.)

Metal conduit will be installed between the service panel and the pump, and three No. 12, insulated copper conductors will be pulled into the conduit. Two of the conductors can be any color *other* than white, natural gray, green or green with a yellow stripe: These will be the two "hot" lines supplying the 240 volts. It would not be unusual to see two black wires used for this, or a black and a red.

The third conductor *must* be green or green with a yellow stripe: This is our *equipment grounding conductor*.

The two hot lines are connected to the Line 1 and Line 2 terminal studs inside of the motor's wiring compartment. The green grounding conductor

is also routed to the inside of the motor's wiring compartment where it is connected to a green-colored screw marked "G," "GR" or "Ground" or marked with the ground symbol: 

An important point: This grounding terminal is a direct connection to the metal *housing* of the motor and to all of the internal non-current-carrying metal parts within the motor. The motor will run the same whether the green grounding wire is connected to this terminal or not. It just won't be as *safe*, as we shall see next month.

ALL TIED TOGETHER

The other ends of these three wires run into the service equipment panel, where the Line 1 and Line 2 conductors will be connected to the *load* terminals of a two-pole circuit breaker in the service panel.

This breaker may then be used as a switch to turn the pump on and off, but its primary purpose is to monitor the amount of electrical energy—that is,

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the amount of current flow, measured in amperes – flowing in the pump-motor circuit and to turn the electricity off any time the current flow exceeds some predetermined level.

The green grounding conductor connects to the grounding bus inside the service equipment panel. This bus is usually a strip of solid metal equipped with a series of holes and clamping screws.

Also connected to the grounding bus will be the *grounding electrode conductor*. This is a large, single conductor that leaves the service equipment panel and travels a short distance outside to the local grounding electrode. This may be a buried cold water pipe – metal, not PVC! – or it may be a 10-foot-long metal rod driven into the ground or other devices and combinations of these devices as prescribed by the NEC.

The grounding electrode conductor is securely clamped to the grounding electrode using approved devices that

are constructed of materials selected for their resistance to corrosion.

But let's dig ourselves out, back up a few feet and return to the inside of the service equipment panel and the grounding bus: This is the point of grounding for the entire house and the only point in the house where all of the ground conductors come together. Every green grounding wire is traceable to this point and can be considered to be effectively grounded.

In turn, every appliance, device and circuit having a green grounding conductor traceable to this point can be called *grounded*.

Next month, we'll discuss the benefits of grounding and what can go wrong -- and take a look at its close cousin: bonding.

Jim McNicol is a technical consultant to the swimming pool, jetted bath and spa industries. He works from a base in Orange, Calif.

NAME GAMES

Would we be more comfortable with grounding concepts if we replaced the terms "ground," "grounded" and "grounding" with "earth," "earthed" and "earthing"? Probably yes. In fact, virtually all English-speaking people outside of North America use the latter terms when dealing with things electric.

For clarity's sake, I fell into the habit years ago of using the term "earth-ground" whenever I wanted to be sure I was getting across a very specific point. This is helpful across the board, but it's particularly important when dealing with electronics designers: It is not unusual for a solid-state electronic circuit to have a "circuit ground" that has absolutely nothing to do with an earthground!

— J.Mc.

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A Good Grounding

By Jim McNicol

Through the years, the #1 question asked of me at seminars and trade shows has been: “What’s the difference between bonding and grounding?”

I have wanted to do an answering article for some time, but I was concerned that its length would require it to be split into two pieces and that the every-other-month format of *WaterShapes* might make it difficult to maintain continuity of thought over a two-month span.

I was pleased when our editor informed me that we would be going monthly for a while. I figured I’d strike now, while the fingers are nimble and the magazine issues more regular.

VISITING THE CODE

I believe the subjects of grounding and bonding can be best approached by first examining the grounding issue – and that a good starting point for this discussion is the “Definitions” section in the *National Electrical Code* (NEC).

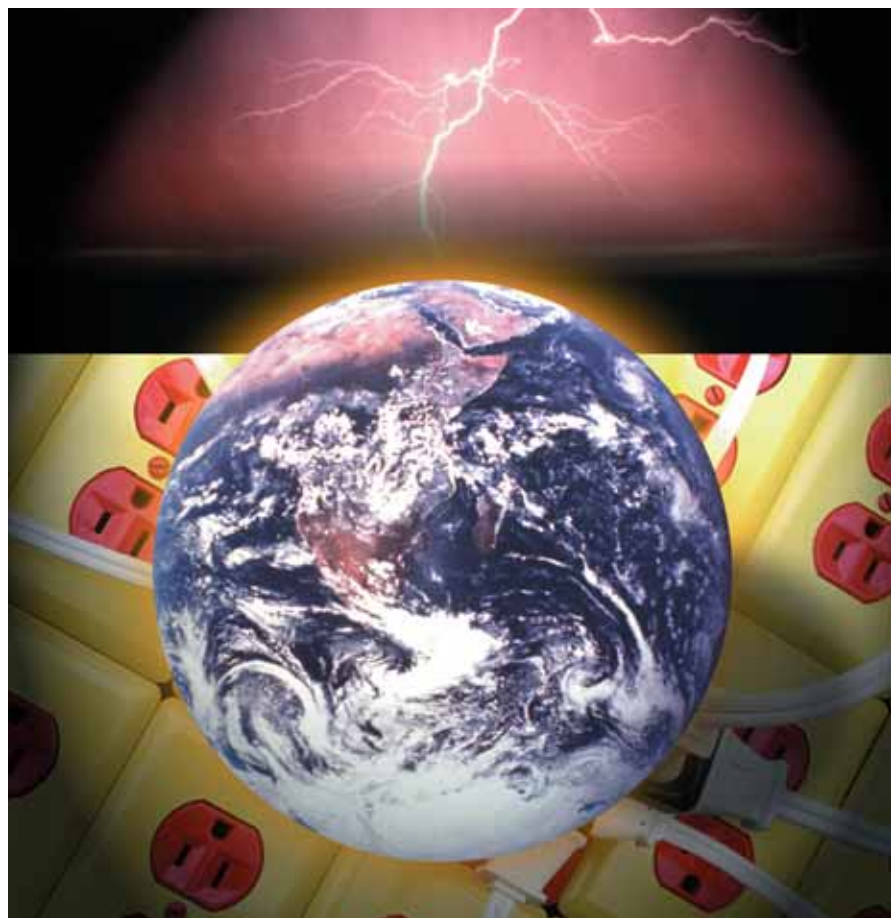
In “Article 100 – Definitions,” we find definitions for the terms *ground*, *grounded* and related subjects:

❑ **Ground.** A conducting connection, whether intentional or accidental, between an electrical circuit or equipment and the earth, or to some conducting body that serves in place of the earth.

❑ **Grounded.** Connected to earth or to some conducting body that serves in place of the earth.

❑ **Effectively grounded.** Intentionally connected to earth through a ground connection or connections of sufficiently low impedance and having sufficient current-carrying capacity to prevent the buildup of voltages that may result in undue hazards to connected equipment or to persons.

❑ **Equipment Grounding Conductor.** The

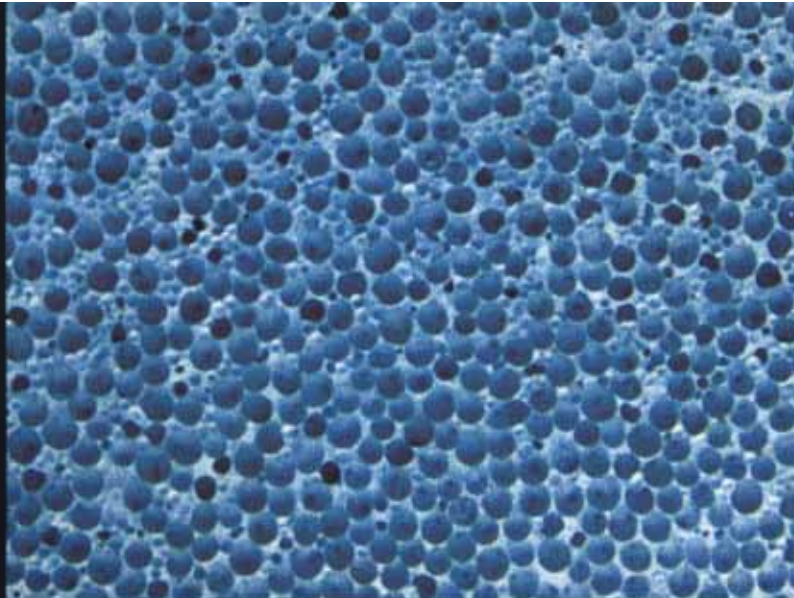


conductor used to connect the non-current-carrying metal parts of equipment, raceways, and other enclosures to the system grounded conductor, the grounding electrode conductor, or both, at the service equipment or at the source of a separately derived system.

The first things that should have jumped off the page and poked you in the eye were those references to “earth.” In its most simplified form, that’s what grounding is all about: When we’re dealing with electrical circuits or equipment that *must* be grounded, we mean that they must be connected to a grounding conductor that can be traced back to the earth or to some conductive object like a metal water pipe buried in the earth or a metal rod driven into the earth.

When we are dealing with parts of an electrical circuit that must *not* become grounded, we must provide adequate insulation (or spacing) to prevent the part from coming in contact with the earth or with any conductive component that might lead to a contact with the earth.

Continued on page 88



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