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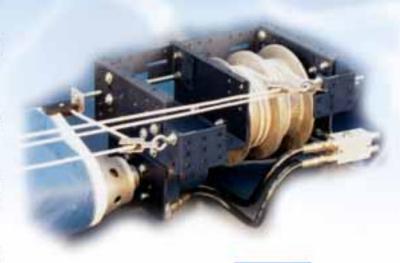
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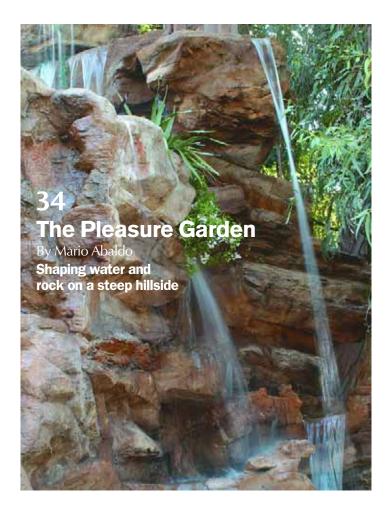


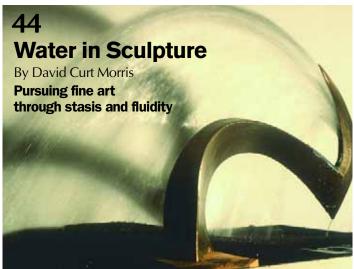


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Photo by Scott Sandler, courtesy Hydroscapes, Fountain Hills, Ariz.

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By Eric Herman

Music of the Moment

Watershapes of all kinds have come a long way in recent years, with elaborate, fully integrated and highly creative designs that were mostly unheard of in days gone by.

For many of us, me included, exposure to "aquatic environments" (as they are now grandly known) began with the most familiar of all crafted bodies of water: the backyard swimming pool. Every summer, it seemed, there was always someone within my circle of friends who was able to make his or her pool *the* place to be for the summer.

No matter how far we've traveled since I was a kid into the wild varieties of pools, spas, streams, ponds, waterfalls, fountains, interactive waterfeatures and waterparks that are now being built, those early memories of swimming in scores of backyard pools are impossible to erase and are among my fondest recollections of growing up in the 1960s and '70s.

I'll never forget the feeling of accomplishment I felt at being able to swim the length of the pool underwater for the first time, the smell of chloramines and suntan lotion, the games of Marco Polo, the bleached-out bathing suits and the sunburned noses.

For all of the vivid memories I have of those beautiful summer days gone by, I remember almost nothing specific about the pools themselves. They were all completely nondescript, and there's not a one that stands out in my memory at all. Yes, there are general impressions of bullnose coping, white plaster, three-foot-wide ribbons of concrete decking, gelcoat slides and stiff diving boards, but nothing was remarkable enough to stand out.

As has long been bemoaned by contributors of all sorts to the pages of this magazine, it is unfortunate but true that the standard backyard pools of the past – and many being built to this very day – are lacking when it comes to creativity and flair.

These days, however, my kids and others of my acquaintance occasionally get to enjoy swimming pools and outdoor areas that have been tricked out with spas, rock slides, grottos, diving rocks, waterfalls, fire pits, outdoor kitchens and fireplaces — and I find myself feeling a bit envious.

Don't get me wrong: My childhood memories are dear to my heart, but would a shallow thermal ledge have been too much to ask back in 1968?

777

Swinging into summer with this issue of *WaterShapes*, we're celebrating the continuing evolution of the backyard pool with a look at the work of three polished practitioners of the craft, each with a clearly distinct sensibility:

- t In "The Pleasure Garden" by Mario Abaldo (page 34), we're treated to a look at one of the most elaborate artificial-rock installations to be found in any backyard.
- € In "Libation Sensations" by Scott Cohen (page 52), we see the work of a specialist in providing clients with highly customized, themed environments that, in the three cases highlighted here, center on his clients' specific passions.
- € In "Completely Contemporary" by Sheri and Roger Soares (page 58), we profile a stunningly modern backyard pool/spa/landscape design that epitomizes upscale good taste.

I can only imagine the memories that will be spawned in these sorts of water-shapes for years to come.

WATER SHAPES

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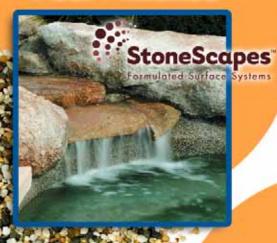




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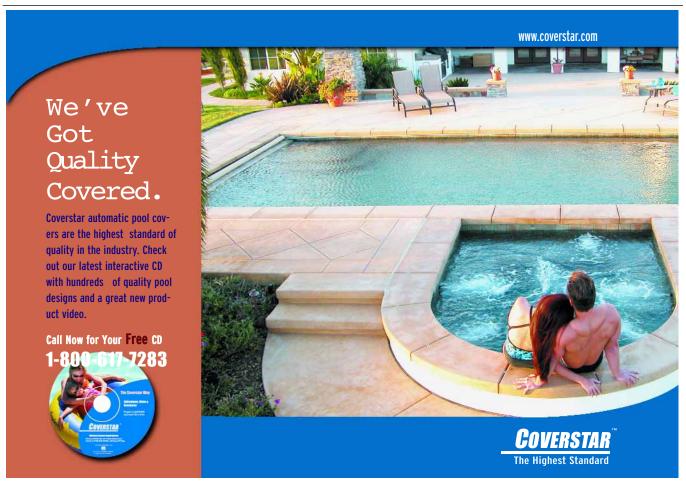
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June's Writers

Mario Abaldo is founder and president of Abaldo Enterprises, a Union, Maine-based design/build firm specializing in extremely high-end, water-centered "total environments" for clients around the world. Abaldo has been involved in hands-on custom work for more than 25 years, having started a successful business as a stonemason at age 15 and declaring that he still "loves the smell of concrete in the morning." He strives to bring the latest in products and technical expertise to his clients and projects, incorporating such elements as high-tech security systems and fire-onwater effects. He also brings a diverse range of life experiences to bear in his work, from his strong academic background to his love for art and outdoor and underwater exploration. He can be reached via his company's web site: www.abaldo.net.

David Curt Morris is a sculptor based in New York. He earned his masters degree in architecture from the Massachusetts Institute of Technology in 1972 and was a fellow at the Center for Advanced Visual Studies at MIT from 1972 to 1973. His architecture and design résumé includes work with Lawrence Halprin Landscape Architects, Marcel Breuer Architects and Skidmore, Owings & Merrill, among others. He has taught in the School of Visual Arts at New York University in the University of Illinois' Department of Art and Architecture. Morris' sculpting career encompasses a variety of significant commissions as well as exhibitions staged throughout the United States. His current works



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in development include variations on the Rainmaker concept that can be run in line with swimming pool equipment.

Scott Cohen is president of The Green Scene, an outdoor design/construction firm in Canoga Park, Calif. An accomplished ceramicist and sculptor, Cohen specializes in custom-designed tiles and sculptures that add imaginative personal touches to his designs. His work has been featured on HGTV's "Landscaper's Challenge" and "Designing for the Sexes," as well as in local and national media including *The Los Angeles Times*, Sunset Magazine Pool & Spa Book, Woman's Day and Better Homes & Gardens. He is member of California's Contractors Board

Industry Expert Program and lobbies for ethical workers' compensation practices in the construction industry.

Roger Soares II is president of Hydroscapes, a custom watershaping firm based in Fountain Hills, Ariz. His background includes 26 years in residential and commercial construction and extensive experience as a plumber. He and his wife, Sheri Soares, co-founded Hydroscapes in 1998 as a service and repair firm. They quickly moved into residential pool and spa design and construction and now focus on providing mostly high-end clients with creative watershape and landscape designs and installations. She also has a background in real-estate development.



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By Brian Van Bower

Questionable

Accolades



ost people I know enjoy being recognized for a job well done. From a simple pat on the back to the Nobel Prize, we get a sense of affirmation when our best efforts are seen and appreciated.

Yes, there are those who see the work as its own reward. For most of us, however, recognition is a good thing, whether you prefer the warm-and-fuzzy side of being singled out for public praise or see the business advantage that comes along with recognition. Whether you're a film star brandishing an Oscar or a swimming pool contractor with an armload of design awards, there's an enhanced marketability that accrues to those with trophies on shelves and plaques on walls.

For years, the pool/spa industry has recognized the marketing function of recognition and has instituted numerous – and I do mean *numerous* – designaward programs. National association awards, regional or chapter awards, trademagazine awards, trade-show awards: It's a cavalcade of programs intended to honor performance across a broad spectrum of categories, and I must say that I myself have submitted many projects for consideration through the years.

Recently, however, I've developed serious reservations about the validity

For years, the pool/spa industry has recognized the marketing function of recognition and has instituted numerous – and I do mean *numerous* – design-award programs.

and relevancy of this plethora of design-awards programs and offer up the following as food for thought.

more, more, more

Before I detail my concerns, let me start by saying that there's a good bit of sizzle that makes these programs tick.

By my count, there are now more than a dozen of these award venues in the United States alone, with literally hundreds of plaques and trophies being handed out each year. The ceremonies seem to be gaining in pomp and sophistication – nicer slide presentations, better settings, fancier dress and good times all around.

As one example, I recently attended the awards event staged by Region 3 of the Association of Pool & Spa Professionals (formerly the National Spa & Pool Institute). Everything was done with top-drawer aplomb, with most everyone dolled up in black-tie attire, several entries worthy of recognition, a beautifully decorated room and a dazzling audiovisual presentation.

In days gone by, I was a four-square supporter of these programs and have the hardware to prove it in the form of around 100 plaques. A handful of them adorn my office walls, but most are stashed away in a box in a closet. I derived the obvious marketing benefits from my participation and for most of my professional career was an advocate for the whole concept of using awards as a means of elevating the industry's collective self-image.

Beyond the altruism, I also used my awards as they were intended: to impress my clients. Let's face it, past clients love learning that their watershapes have been recognized for excellence, while prospective ones often cotton to the idea of having their projects installed by an awardwinning firm. In a universe in which there are few ways to distinguish pool companies beyond



















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price, peer recognition can indeed be a powerful marketing tool.

Given the upside, what on earth could make me see problems with this form of recognition? Well, when you step back and analyze the true nature of these programs, you begin to see cracks not only in the overall concept, but also in how they are administered. And these are misgivings that have been growing in my mind for years – especially spurred on by the fact that I now have the unusual distinction of having been given an award in a design competition I never even entered.

down a notch

First let's consider the judging process and what's actually being evaluated.

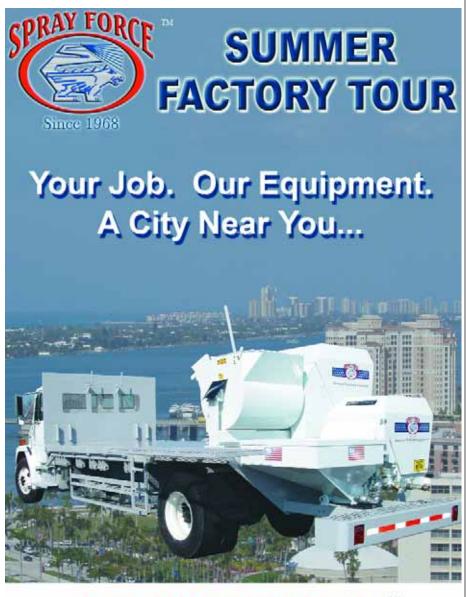
Each year amid some level of promotional fanfare, organizers announce the program to some targeted group – members of a given association or association chapter, for example, or readers of a specific magazine. There are typically lots of categories covering inground concrete pools of various sizes and/or shapes, commercial pools of varying functions, vinylliner and fiberglass pools, inground and portable spas, pool/spa combinations – the lists go on and on and seem to be in constant states of expansion.

The entry requirements typically involve payment of some kind of fee, a brief description of the project and, of course, photographs. Long before I or anyone else began offering critical views of awards programs, it was widely acknowledged that these programs are, to a large extent, photo contests.

There's no question that firms paying top-notch photographers to shoot their work have the inside track on bringing home the gold. Because swimming pools (and most other bodies of still water) can be beautiful simply by virtue of their reflective surfaces, a good photographer can often make a fairly unimpressive design magical by capturing the reflection of a sunset, clouds or surrounding greenery. These professionals know how to manipulate exposures and work with filters and lenses and are smart enough to wet down rockwork and decks, artfully arrange furniture or plantings around the water and find the absolute best angle for the shot.

I know this is a factor because I've seen beautiful designs that suffered in judges' eyes because they were represented by lack-luster photos. There's also the fact that the two-dimensionality of still photography cannot capture the essence of a watershape: the depth of the scene, the light dancing on the water, the sights and sounds of moving water. Given these limitations, winning a design competition can come down to something as simple as the time of day a body of water was photographed.

An even bigger problem with basing awards primarily on photographs is what they *don't* show. A true "design award" should be based on the design in full, not just on aesthetic elements. How often have we heard of beautiful-seeming watershapes that are, in truth, technical



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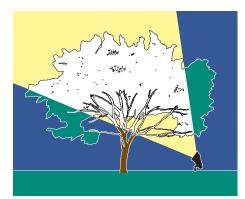
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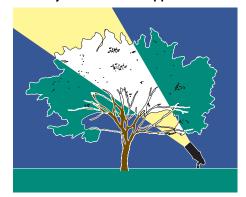
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nightmares? The photos don't show the structural design or the plumbing, and none of the current competitions has ever asked to see views of the equipment set.

With water-in-transit systems, for example, this lack of information on the hidden details is critical. Without properly sized or configured troughs, gutters, plumbing loops or surge tanks, these sys-

tems can experience catastrophic failures. No matter how good it might look, recognizing such a system without proof of the adequacy of its hydraulic design is, at the very least, problematic.

Should the awarding process require submission of plans, specifications, construction photos, or even involve on-site visits by judges? In a perfect world, the answers would all be yes, but I'm certain that organizers of existing programs would argue that such an elevated process would be unwieldy and expensive and would drastically reduce participation. I'd counter, however, that until such a rigorous program exists, we will never truly be recognizing the best we have to offer.

off the shelf

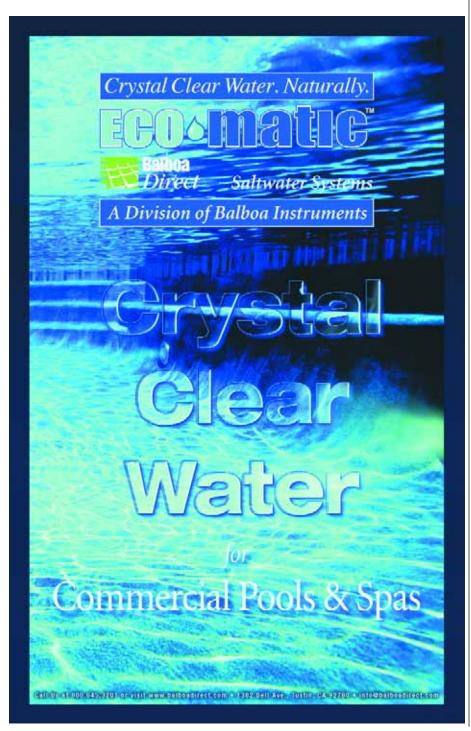
As mentioned above, another defining characteristic of most award programs is their phenomenal ability to invent new award categories.

I can see why sponsoring organizations do it – basically because it multiplies their capacity to recognize members or subscribers – but I confess to having a problem with awards for things like the installation of portable spas, vinyl pools or prefabricated fiberglass pools. These products are designed, engineered and manufactured in a factory, and it seems rather absurd to give someone an award for simply placing one of these items on a redwood deck or in a smartly contoured hole in the ground.

I do think it would be wonderful if there were awards given to *manufacturers* for a particularly outstanding or innovative product – in the way, for example, *Motor Trend* recognizes top car models each year. Such a program does not currently exist in our industry, but I can't help thinking it might have great value and could be a spur to product development, innovation and increased competition. That's not a bad bunch of outcomes, but it's a concept that isn't likely to come to fruition anytime soon.

What happens instead in our industry is that a contractor who literally pulls a manufactured item off the shelf and puts it in place can walk away with the prize. It's easy to understand why this happens: Trade associations and trade magazines (with the exception of *WaterShapes*, which has no awards program or any affiliation with one) are broadly based, and it would be a violation of the egalitarian spirits with which they operate to recognize the builders of custom-concrete watershapes while ignoring the work of others.

The fact remains, however, that this desire to be inclusive dilutes the significance of these programs and leads many de-



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signers and contractors to opt out because they want their projects to be recognized in a process that really means something to them, their peers and their clients.

(Speaking of clients, I've always thought that, in some form or other, the voices of those who pay for projects should be included in design-award submissions. After all, making the client

happy is a huge part of what we do, and it'd be great if customer satisfaction could be part of the formula.)

The underlying point here is that the sheer number of awards and categories dilutes the effectiveness of the programs. It would be more exciting to have truly national awards where one and only one recipient received an award and the num-

ber of categories was strictly limited rather than expansive. Think of an award given to the designer who created, for instance, the best inground concrete residential pool in all of the United States: *That* would be a prize with real meaning and prestige.

due credit

The final problem I have with design awards is a big one, and it has to do with who enters in the first place.

For starters, there's the simple fact that participation is generally limited to members of a given association or readers of particular trade publications. That's not necessarily a bad thing, except for the fact that many of the finest projects are executed by people who are essentially out of the collective loop and feel no hunger for recognition of the sort provided by award programs.

At the same time, many of those who do enter really have no business doing so because they didn't actually design the project. Fact is, design awards in the pool and spa industry are generally given to swimming pool contractors, and while I'm sure some of them do their own design work, it's a known fact that a great many do not.

My friend and fellow Genesis 3 cofounder Skip Phillips often comments



For anyone concerned about the legitimacy of awards competitions, here's one guaranteed to fire you up.

I've just heard about a large company that invented its own in-house designaward program. The entries were drawn entirely from the company's own project log, and the contest organizers actually had the nerve to declare one of theirs to be "Pool of the Year."

More amazing yet, they've been *promoting* the fact that one of their projects was granted this prestigious award, making their own internal contest seem on par with the best of the national competitions.

-B.V.B.



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that the key to winning design awards all too often is a matter of being the low bidder on construction of someone else's design.

Frankly, this is an outrageous state of affairs: To me, it is unconscionable to bestow design awards on those who do little more than build a vessel and circulation system. In addition, landscape architects or designers are involved in so many spaces, and it's the presence of the plantings and hardscape and the overall arrangement of the space that really wins the admiration of uncritical judges.

In the awards programs run by associations in the fields of architecture or landscape architecture, it is entirely unacceptable (and perhaps even legally actionable) to claim credit for someone else's design. In the pool/spa industry, however, a firm that does little more than put a low price on construction and hires subcontractors gets to take home a medal and use it to promote their "design capabilities" to unwitting clients.

The solution to this particular issue is simply to require contractors who enter awards programs to cite the designers if they themselves did not actually put pen to page to create the original plan. As it stands, however, this is not the way these programs operate.

It's unreasonable to think that the industry is going to make a sea change in the way it hands out accolades. After all, these shortcomings are nothing new and for whatever reason the problems I've described don't seem to bother too many people. Yet, I can't help thinking that if our aim is truly to recognize excellence in design, then we should do more to ensure the process itself is worthy of a prize.

Brian Van Bower runs Aquatic Consultants, a design firm based in Miami, Fla., and is a cofounder 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. He can be reached at bvanbower@aol.com.

















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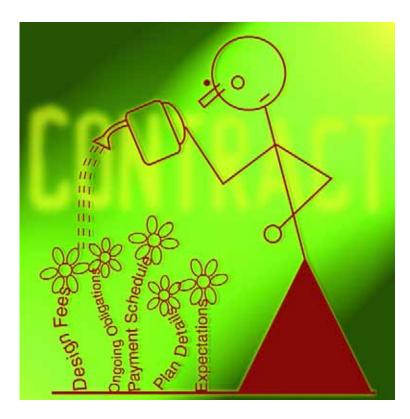
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By Stephanie Rose

On Contracts



t'd be great if we all lived in a world where a handshake was sufficient to seal a deal and no legal documents were needed. Unfortunately, however, we live in a society in which contracts are a necessity for most of us in business.

When I first started out, I took on jobs without signed contracts, and for the first few years I didn't run into any problems. As I moved into higher-dollar projects, however, I developed a quick appreciation for the value of a contract when a client refused to pay for my services as we'd verbally agreed he would. Although I realize there are people out there who run strong, successful businesses without a need for contracts and rarely run into problems, for most of us I believe it is a critical component of every job.

The purpose of any contract is to define the relationship between the provider of a service and the client. It should delineate the service provider's obligation to the client and define expectations, inclusions, exclusions and whatever else a particular project might require. In other words, it should eliminate any need to guess about how the business relationship will unfold.

getting specific

In my own practice as a landscape designer, I only contract for design, in-

I developed a quick appreciation for the value of a contract when a client refused to pay for my services as we'd verbally agreed he would.

stallation supervision and project management, meaning I never collect money for anyone but myself as I am not a licensed landscape architect or contractor. Managing my jobs in this way eliminates a lot of bookkeeping and helps me sidestep certain legal hassles that would be involved if the money all ran through me.

My work in a design-only capacity is fairly straightforward, but as we'll see below, there's much to be encompassed in a design contract. As for installation supervision or project management, much more is to be done, including evaluation of other contractors' bids and of the contracts they ultimately present to my clients.

Even when a contractor is reliable and familiar, I think it's important to understand the full scope of the work for which each contractor expects to be responsible and make sure my clients completely understand their responsibilities with respect to each contractor. By looking out for their interests, I effectively make myself much more valuable to my clients.

For many reasons, every contract I organize with a client is different from the last. Just as each job is different, so will be the scope of the work, client expectations and my own – and I know that everything should be as clearly defined as possible.

As I have pursued my career, I've also watched my contracts evolve based upon what I've learned from each completed project. I once thought it adequate simply to define the price of a design contract and state that it included all design meetings, research, hardscape selections, blueprints or plant lists, nursery visits and any other items needed to complete the design to the client's satisfaction (a phrase that can come back to haunt you, so use it carefully).

As I've gained experience and wisdom, however, I recognize that it's important to be as spe-



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With 12.9mm (0.500") or Optional 15.9 mm(.625") stream for Vertical "Jump or Shooting Spray ", for in pond installations, indoors or outdoors , it has internal illumination carried over the full height of the stream, while connected to the jet. This jet is recommended for music controlled spray effects .Operate with oversize flow rated Cartridge Filter(s).

With 16.0mm (0.653") or Optional 18.0 mm(.0.736") full laminar stream with internal illumination that is carried within the stream to the impact area (while the stream is connected to the jet). This jet assembly was created for in pond or out of pond with drains leading back into pond, also for quick & easy maintenance of public park installations, where more often cleaning without affecting the spray pattern is required. Operate with oversizeflow rated Cartridge Filter(s)

Compact Stream 25.4mm (0.653") or Optional 22.2mm (0.875") or Optional 18.0 mm(0.736") laminar stream for internal fibre optic illumination (not included). This jet assembly was created for in pond or out of pond with a 4" / 100mm drain leading back into pond, also for quick & easy maintenance of public park installations, where more often cleaning without affecting the spray pattern is required. The compact size streams are ideal for water parks as being highly visible and having a soft impact. Operate with oversize flow rated Cartridge Filter(s)

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PEM 143M2

4.0m - 6.0m 13'-20'



PEM 144M2

4.0m - 6.0m 13'-20'

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cific as possible under all conceivable circumstances, as you can never predict how a job is going to proceed and what issues might arise. The more specific I am up front, the less the chance there will be for misunderstandings later on.

With that in mind, here are some key issues I like to define in the various contracts I issue to clients.

- **Design contracts:** As suggested above, design contracts can be reasonably straightforward, but there are nonetheless many areas and functions that need careful definition if the lines of responsibility are to be clearly drawn. These include:
- Design fees. It's not important to tell a client how you arrive at your design fees, and you can always explain things verbally

if they have specific questions. What *is* important is the fact that clients tend to feel more comfortable with a set fee and accept the fact that they have a defined obligation to you during the design phase.

I typically don't do design work at hourly rates. My contracts do, however, spell out the fact that once the design process is complete, any major redesigns or site consultations (especially if they aren't contracting with me for supervision of the installation) are to be billed at a defined hourly rate with stated minimums. I also clearly delineate what is included in the design fee and indicate any exclusions as well.

• Ongoing obligations. To prevent any misunderstandings once the design work is complete, I usually explain to clients in writing that I have been contracted strictly for design work and that if we elect to go beyond the design process and continue to work together, a separate agreement will have to be developed. To simplify this stage of the process, I briefly outline my fees for supervision of the installation to give the client a clear picture of what my additional involvement might cost.

I also make it perfectly clear that, once the design process is complete, they are under no further obligation to me and I am under no further obligation to them. Thus, if we have a difference of opinion through the design stage that can't be comfortably settled, I am under no obligation to stay involved; for their part, they get freedom of choice when it comes to the installation process.

In addition, if they choose to install the job themselves or use someone else, such a clause makes it clear that I am under no further obligation with respect to the design. In other words, I can't be held responsible for the way things turn out if they install things themselves. Contract clauses of this nature can become mazes of legalese, but there's great value in defining a clear parting of the ways.

• Payment schedule. Each payment stage is clearly defined with a given dollar value. I know that an exact schedule is often difficult to chart – many stages overlap – but I try to be both as specific as possible and as fair as possible in sending invoices to clients. In fact, I frequently err on the side of caution and wait until

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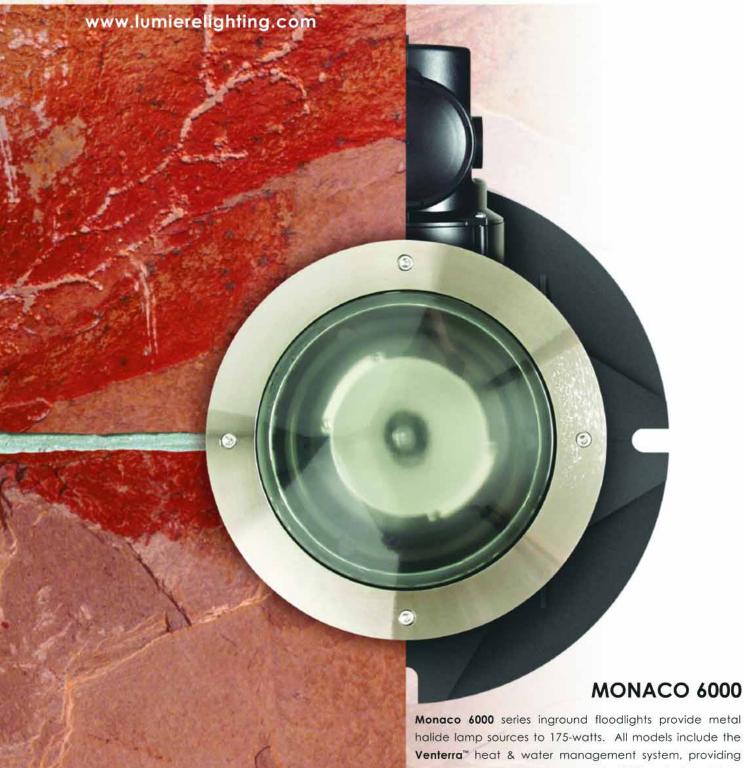
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I am past a particular milestone before requesting payment.

- Signature and date. This is the touchstone of legality: If you have a client's signature and the date, you have a strong bit of protection in the event of a dispute.
- Plan details. Through the years, I have discovered that it's often impossible to note every single plant on a plan and define exactly where it should go a particular problem with complex plans, which can become so dense that they become very hard to read. As a result, I now include a clause in most of my contracts stating that all plants in five-gallon containers or larger will be specifically placed, but that anything smaller will be located based on my discretion as it pertains to the readability of the plan.

I've done so because I had a client who specified so many different varieties of plants that the symbols on the plan became confusing and hard to distinguish. There was no way everything would fit, but the clients expected *every* plant (in-

- cluding quarts) to be specifically located because they wanted to be able to install the job themselves working from my plan. The mistake I made in the beginning was to allow them to think I could draw *everything* into a readable plan. I have amended my contracts accordingly.
- Expectations. This is something new in my contracts, and I believe now that it's extremely important to set expectations up front both for me and my clients. One specific example: I expect my clients to understand that they need to provide appropriate maintenance for the design once it's installed. I am a designer, not a gardener, and I can create a beautiful design but I don't want clients coming after me if poor maintenance makes things look bad.
- *Project specifics*. It's important to recognize that contracts, while many of them have much in common, need to be tailored to the specifics of the job and the client. My practice is to cover as many bases as I can up front to avoid problems later. When in doubt, I proceed with cau-

tion. This won't necessarily prevent litigation if a problem arises, but it may sway things in your favor if you've put your contract together thoroughly and well.

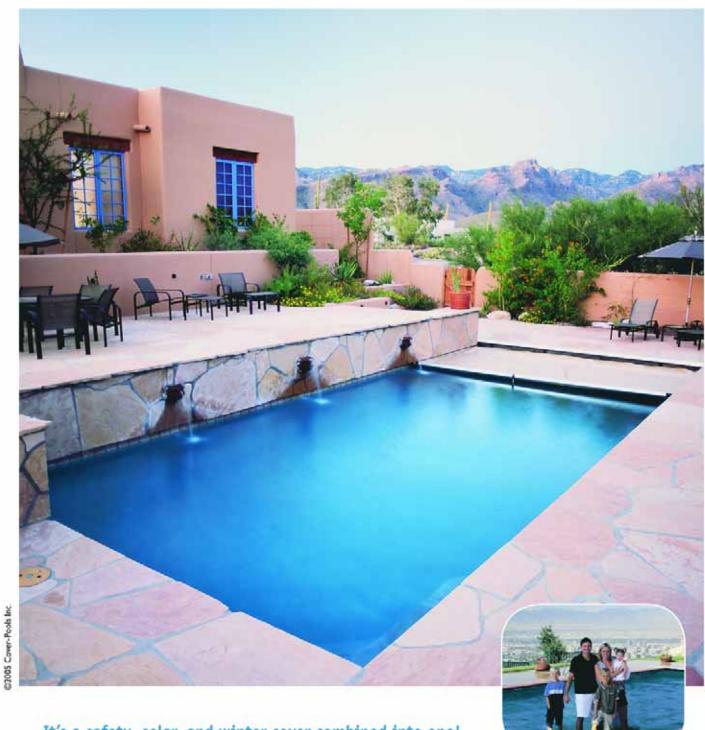
D Supervision and Installation Contracts: Mine is a one-person operation, so I always work with contractors on jobs and have my clients contract directly with them for their services. My role in this arrangement is to be on site and govern every stage of the installation, from drawing lawn lines for irrigation and consulting with the contractor on various issues that arise on site to placing plants, working with the nursery and selecting plants or alternates.

In other words, my job is to support the client and the contractor to make sure the installation goes smoothly and to the client's satisfaction. For this service, I might charge either a percentage of the contractor's price on the installation or an hourly fee, depending upon the job. Whichever payment method is used, I clearly define how the payments will be invoiced and



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at what milestones or percentages of completion invoices will be generated.

To make things clearer – and to make sure the client has read and understood how payments will unfold – I include a simple example. Let's say I've indicated that I will be charging 15 percent of the contractor's fee: I state clearly that this includes the *total* of the contractor's fees to the client

and add: "If the total contractor's fee is \$10,000, the SRLD fee will be \$1,500."

Project Management Contracts: Many high-end clients don't have the time to supervise and coordinate the many trades that might become involved in a project, so I provide a service through which I make sure that the job progresses as smoothly as possible and perform

as the person calling the various contractors required to complete the job.

On one job I'm working on now, for example, this service involves the coordination of a pool contractor, a general contractor, a landscape contractor, a carpenter, a lighting designer, an artist, an arborist, a fence contractor and various other trades. The client pays me a fee for overseeing everything and acting as his representative to everyone else involved in the project.

This is high-level involvement and implies considerable liability on my part, so I had an attorney draw up this particular contract based on what I defined as the scope of my role. Even in cases where my involvement isn't so comprehensive and I develop contracts based on those I've written in the past, I firmly believe it's never a bad idea to have a lawyer review a contract to point out places where you might need to do a better job of protecting yourself.

why contracts?

Ultimately, the reason we have contracts is so that if one party – either the client or the contractor – has a dispute with how the job has gone forward, he or she has recourse based on a legal document that defines how the job should have proceeded.

As most of us know, no contract is ironclad and everything you and your clients see in writing is subject to interpretation – and it's surprising how different those interpretations can be if a business relationship doesn't work out. Ideally, however, a contract will both define how the work should be done and state up front what everyone's expectations should be. This, we can all hope, will minimize problems in the short run as well as the long run.

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 have a specific question about landscaping (or simply want to exchange ideas), email her at sroseld@earthlink.net. She also can be seen on episodes of "The Surprise Gardener" on HGTV.



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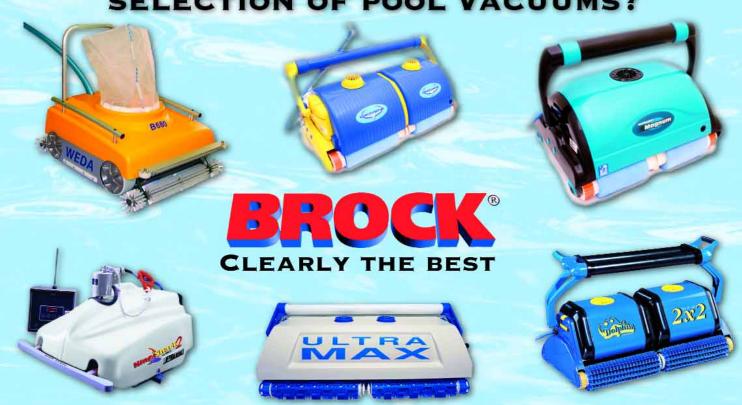
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tisherman: detail 52

By David Tisherman

Turkey Revisited

t's a truism that almost all contemporary works of art are derivative: The ideas have already been expressed in one way or another at some point in history, and all we can succeed in doing is to apply those enduring forms as creatively as we can.

We can't invent the wheel – that's already been done – but we *can* redraw it, embellish it, place it in context and, in our own ways, improve upon it through the choices we make in using it. To be effective in that sort of downstream effort as watershapers, it is essential that we understand the nature and origins of the basic building blocks of aquatic design.

For years, people have asked me where I get my ideas – pools raised out of the ground, the small spillways, the drain details, the modular deck treatments, the color usage and the use of reflection, to name just a few. "Through my design education" is the short answer, of course, but I can get more specific if we take a look at history and visit some precedents.

In WaterShapes' March 2003 issue, I wrote about traveling to Turkey and

The richness of Turkey's history and the variety of design ideas to be found there is so vast that one could spend years touring and delving and digging without seeing everything.

chronicled some of what I saw there. This year in March, I went there again with a group of watershaping friends, and together we explored some of the earliest expressions of design details used to this day by me – and many others, whether they know it or not!

good company

The richness of Turkey's history and the variety of design ideas to be found there is so vast that one could spend years touring and delving and digging without seeing everything. Indeed, Turkey has more classical ruins than Greece and Italy combined, and its extraordinary cultural landscape can easily be characterized as a massed synthesis of European, Islamic and Asian culture and styles.

People in our country rarely consider Turkey as a primary destination in making their travel plans, but I've found in multiple visits through the years that it is extremely hospitable to Americans, full of friendly people and surprisingly safe, given its situation in a part of the world too often subject to strife and violence.

A big part of what made my latest trip so special was the group of companions who shared the experience with me, including Paul and Donna Benedetti, Rob and Suzanne Ifflander, Roger and Sheri Soares, my partner Kevin Fleming, Bob Nonemaker and my fiancée Lisa. None of them had been to Turkey before, and all were eager to absorb the history and cultural variety of each place we stopped.

In planning the trip, I decided to concentrate on the cities and historical sites found on the Aegean coast. This southwestern edge of Asia Minor is filled with ruins, archaeological sites, temples, synagogues, churches, mosques, palaces and antiquities of every imaginable sort built in the past 2,500 years.

Continued on page 28



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tisherman: detail 52

We flew into Istanbul to meet our guide, Adican Akar, whom I'd met on my last trip and who is perhaps the best travel guide I've ever known. The next day, we flew south to the province of Izmir, where we boarded a chartered bus and set out, mostly hugging the Aegean coast.

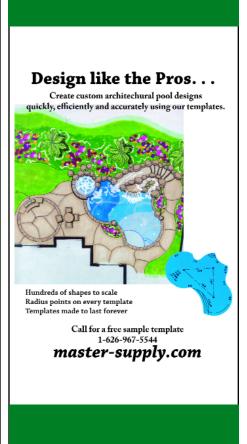
The historical, cultural and religious significance of the region was evident at virtually every stop. We came across Greek, Roman and Ottoman ruins, cities whose names feature prominently in the Bible, the Greek settlements of Smyrna and Ephesus and the ancient cities of Pergamum and Sardis as well as some "newer" cities, including Laodicea, Philadelphia and Thyatira.

In Sardis, we visited the Temple of Artemis – one of the Seven Wonders of the Ancient World – and toured bathhouses and scores of limestone ruins. This was nothing like the more-familiar experience of visiting the Parthenon in Athens, elbow to elbow with thousands of other tourists: We were almost alone



My traveling companions – from left, Rob and Suzanne Ifflander, Kevin Fleming, my fiancée Lisa, Bob Nonemaker, Roger and Sheri Soares and Pablo and Donna Benedetti – listen as our guide, Adican Akar, briefs us on what we are seeing at Pergamum and its significance.





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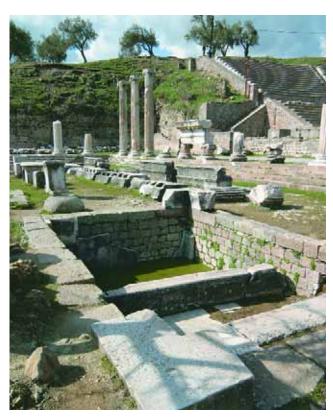
here and were able to wander the ruins at will, examining the baths, stonework and columns up close.

We saw fountains that had been used to cool public spaces and deodorize public baths and vomitoriums. We examined the Roman drainage systems, saw early spas and walked through the beautiful marble features of the city's amphitheater. We took our time and drank everything in at a relaxed pace.

an insider's view

In Sardis, which I've heard described as the likely home of King Midas of the golden touch, Adican gave us even more to consider, informing us that Sardis offers evidence of human occupation dating as far back as 5,000 B.C.

According to the Greek historian Herodotus, the sons of Herakles founded a dynasty that held sway from a base in Sardis for more than 500 years. By the early 7th Century B.C., the city was the hub of a growing empire and had already



We learned that the hospital at Pergamum boasts some of the world's oldest spas – including this vessel, in which physicians helped patients through still-conventional approaches such as hot-water therapy. Note the lonic columns in the background and the edge of the odeon off to the side.







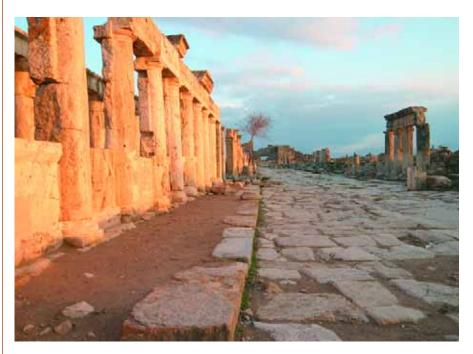
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developed a distinct archaeological record.

Later, during the Mermnad dynasty, the empire reached its greatest geographical extent, stretching from the Aegean coast to central Anatolia. All of this rich and complex history can be seen in ruin after ruin. In one case, we walked through an ancient synagogue and saw a mosaic-tile floor that revealed a bold use of reds and blacks.

Because of Adican's storehouse of information, we were able to place the architecture we were seeing in reasonably precise historical contexts. His discussion of classical column styles, for example, was of high interest. We were all reasonably familiar with characteristics of the Doric, Ionic and Corinthian orders, but he introduced us to two others – a Pergamene style and a composite type that combines other styles into stunning spiral shapes.

We also toured Troy, where we learned that the great city of Homer had been rebuilt seven times through the years, leav-



This street in Hieropolis was designed with highly refined engineering standards, including colonnaded storefronts, curbs that define the sidewalks and a hidden sewer that runs down the middle of the street with drain grates that blend seamlessly into the paving – a detail I've picked up countless times for my own projects.

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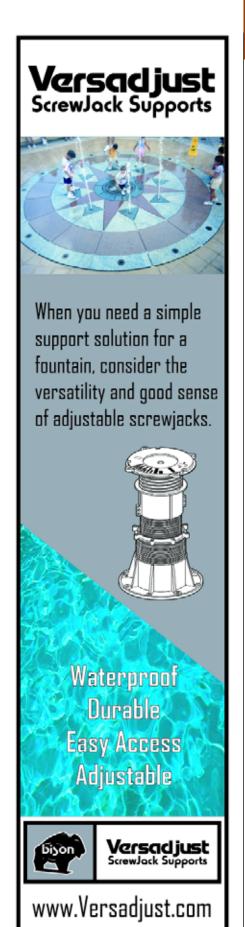
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WaterShapes · June 2005



tisherman: detail 52

ing layer upon layer of ruins in a veritable archaeological cornucopia. The Bronze Age city, which sat in a strategic position between Europe and Asia, made its greatest mark in literature, first in *The Iliad*, Homer's tale of Helen of Troy and a spiteful war, then in *The Odyssey*, his hymn to Odysseus' heroic voyage of adventure and self-discovery.

After the Trojan War, the city was basically abandoned until about 700 B.C., when Greek settlers arrived in the region and renamed it as Ilion. It figures in the story of Alexander the Great in the 4th Century B.C. and was resettled and partly rebuilt by the Romans in the 1st Century B.C.

Wherever we went, we kept tripping over these names out of history books, and I credit Adican for keeping us up to speed with his running commentary. One of my favorite stops was in the wonderfully named Aphrodisias, the city of

Aphrodite, goddess of love. There we saw a 200-meter-long pool, amazing black-and-white checkerboard tile mosaics and bold uses of red marble. Elements of each have, at one time or another, made appearances in my own designs.

While there, we also toured the well-preserved Temple of Aphrodite, strolled through a white-marble odeon (a small amphitheater with water in front of the stage), saw a 30,000-seat, colonnaded playing field and took in the great Portico of Tiberius. I'm told that the city had been home to a famous sculpture academy in Roman times, which makes sense given the high-grade marble quarried a short distance away.

inspiration

Throughout the trip, I found myself thinking and saying time and again that the designs I develop have been profoundly influenced by this classical her-



The raised wall on this pool in the Roman baths at Aphrodisias mirrors a detail I have used repeatedly in my design work to ease access to the water and provide poolside seating areas. There really isn't much new under the sun, just a willingness to adopt and adapt design precedent in creative ways.

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itage and that my work largely involves a spirited adaptation of things I've seen in Turkey and elsewhere. None of us can claim to have invented the swimming pool or the fountain or the reflecting pool: What we do is translate and transfer ideas plucked from the annals of design history.

And the best way to do so, as I've written time and again, is to travel and see these precedents in context while keeping an eye open for details you can use.

In all my traveling, in fact, I've never found a better design resource than Turkey. I've derived countless details from things I've seen there, and I keep going back because I see it as a true laboratory of ideas that cuts across time, cultures and history.

This is where, in 1985, I first saw the stone drain details I use; it's also where I was encouraged to expand my color palette and found the will to propose color schemes and combinations that have seemed outrageous to many of my fellow

watershapers. The juxtaposition of vertical structures and reflective water surfaces is another approach I use, and I can trace it right back to ideas explored centuries or even millennia ago.

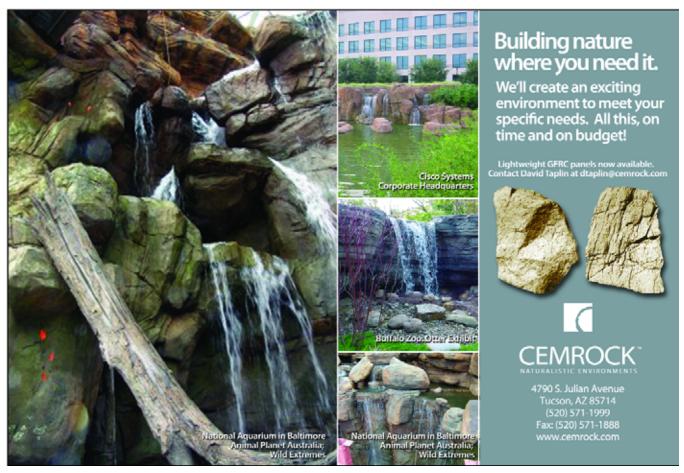
Everywhere we went, in fact, we saw reflecting ponds right next to incredible columned structures. In Istanbul, we saw the use of runnels to keep the Sultan's palace cool as well as beautiful fountains and subtle drains. We visited the underpinnings of the city, moving through cisterns completed by the Romans in 532 A.D. with countless arches that served (and still serve) to contain the millions of gallons of water needed to supply what was once the world's greatest city.

Our last evening was appropriately spent in a restaurant located within one of the old cisterns near the Blue Mosque. We enjoyed terrific food and reflected on the fabulous experience, and I was happy that all my traveling companions seemed to have reveled in everything we experienced.

Will this trip influence their designs or their thinking about world history? I can't say, but I *do* know that traveling to places like Turkey, Venice, Rome and many other places has transformed my own work as a designer and has helped me elevate my game in myriad ways. To answer a question that was often asked of my companions before our trip, *this* is why we all went to Turkey.

Watch for a detailed feature on Turkey's classical architecture and watershaping in an upcoming issue.

David Tisherman is the principal in two design/construction firms: David Tisherman's Visuals of Manhattan Beach, Calif., and Liquid Design of Cherry Hill, N.J. He is also co-founder and principal instructor for Genesis 3, A Design Group, which offers education aimed at top-of-the-line performance in aquatic design and construction.



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The Pleasure 1210 CTAIL CONTROLL CONTRO

By Mario Abaldo

The hills of Bel Air, Calif., are replete with steep slopes, lush greenery, winding streets and luxury estates – the perfect setting for one of Mario Abaldo's elaborate naturalistic compositions in artificial rock and water. The work took months to complete, during which time he and his crews of artisans spent countless hours creating a pool and spa, streambeds, ponds, landscapes and a 40-foot waterfall set amid towering eucalyptus trees.

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In designing and constructing naturalistic projects for residential clients, I keep two thoughts uppermost in mind: First, the only way to create a successful, natural-seeming illusion is to base my work on the observation and study of nature; second, the only way to build fun into such an environment is to fill it with a child-like sense of wonder that draws old and young alike to the natural beauty.

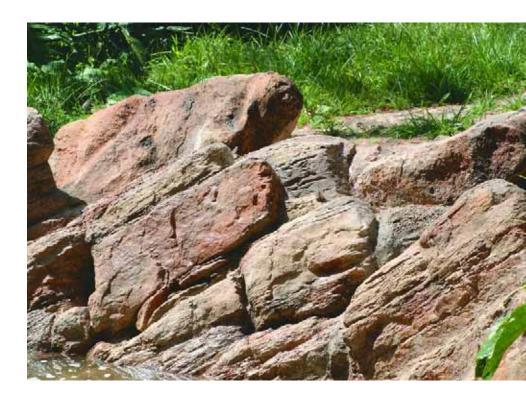
For the project pictured in these pages, those two thoughts were always front and center. The homeowner first contacted us about his desire to place a dramatic waterfall in front of some striking, 120-foottall eucalyptus trees. That vision soon expanded to include additional watershapes now woven through the majority of the steep, terraced, heavily wooded site.

Some work had already started on a set of streams and a hillside pool by the time we became involved, but when the client became acquainted with our work and saw the sort of realistic, highly detailed projects we execute, he wanted us to pick up and take the entire project to completion.

Built during the unusually wet winter southern California experienced this past year, the project was challenging in logistics, scope, variety and detail. Some of the practical challenges included hand-carrying 400-pound rock panels down 100 yards of steep, switch-back paths - and occasionally dodging rogue golf balls shanked over from the adjacent Bel Air Country Club. Despite such annoyances, however, the result is something our firm and our clients now see as a distinct point of pride.

Top to Bottom
The lot encompasses about 1-1/2 acres and includes a gorgeous Mediterraneanstyle home that's about typical for this extremely affluent suburb of Los Angeles. The homeowners were in the midst of a complete interior/exterior remodeling program, and some waterfeatures were already under construction, including a concrete shell for a swimming pool, some concrete-lined troughs for streams and the first steps toward some rockwork structures.

The reason we were asked to take over the project was our company's ability to create rockwork that fit geologically as opposed to the too-common practice of





laying rows of boulders along stream banks or piling them all in one place to create a chaotic waterfall. We came aboard instead with distinct ideas about outcroppings, striated layers of rockwork and complex waterways - all of which aligned more directly with the clients' own vision.

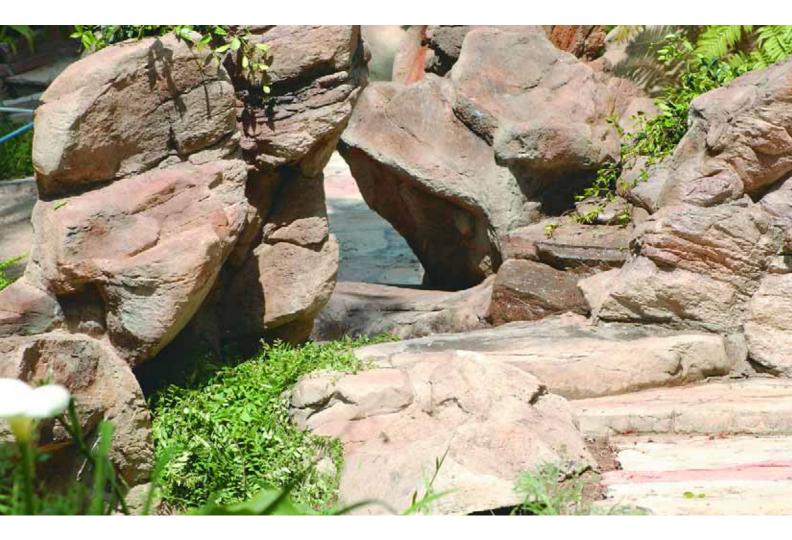
We were also inspired by the terrain, which lent itself to exploration and discovery, and were soon working to take advantage of the natural twists and turns and elevation changes to give every single point its own unique view.

In addition to the stand of huge eucalyptus trees, the site also had established greenery on many areas of the slopes and an interesting Asian-inspired gazebo all the way at the bottom of the property. The house offered views over the treetops as well as tree-screened and calla-lily-dotted glimpses of the golf course.

What we were after overall was a kind of symphonic modulation, a repetition



ROCK TEXTURES: A huge part of the work we do on site involves the coloring and texturing of the artificial rock surfaces we've created. In finishing the work, we pay attention to the smallest details – darkening less-weathered surfaces in cracks and recesses, for example, and lightening sun-exposed surfaces to simulate natural weathering. In every way we can, we enhance the work we've already done in crafting striations, outcroppings, clefts, rockfalls and other formations we've observed and studied in natural settings.



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and variation of rock and water elements laid out across the lush terrain. By the time we'd finished our work and revised the existing structures, the property also included a 40-foot-tall interactive waterfall, hundreds of feet of streams, several smaller waterfeatures, a pond and a reworked pool and spa.

The "secret gardens" behind the house are invisible from the street, blocked by wrought-iron and shrubbery and set below street level. Once inside the gate, you go down a flight of stairs and see the land dropping down and the house unfolding. Looking up to your left, you see a small waterfeature at the property's highest point – just there to set a mood, with a small amount of rockwork and a delicate sound of moving water.

Many Courses

As you make your way down the hillside beside the house, the first thing you see is the 40-foot waterfall structure

Among the Trees

One of the defining elements of the project described in the accompanying text was a need to work among massive eucalyptus trees that in some cases measured four feet across at the trunk and reached well over 100 feet in height.

These trees have huge root systems, and we took some fairly extreme measures to protect them during construction, including installation of special drains to protect their roots from flooding. We also made sure that the roots were adequately exposed for aeration and fertilizing, and we went to great effort to place footings for various rock structures so as to avoid root damage.

As a rule, this meant protecting the bases of the trees out to their drip lines, which is generally adequate to ensure the health of well-established specimens.

To make it seem that the trees and the artificial rockwork had long coexisted, we fashioned faux roots that emerge from the rockwork and give the impression that roots and rocks had been interacting for years. All of this extra effort meant that our rockwork – especially the large waterfall feature – could successfully be placed within the trees' cascading foliage and among the trunks themselves, giving the site a lush, verdant feeling.

As a bonus, bringing our work so close to the trees enables our clients and their visitors to enjoy the aromatic fragrance of the eucalyptus trees – an experience considerably enhanced by the moisture of the waterfalls and mist.

-M.A.



tucked against the eucalyptus trees. The true centerpiece of the entire project, this feature merits detailed discussion, so we'll come back to it below after visiting the rest of the composition.

The waterfall structure's high-rise cascades feed a stream that connects to one of the early concrete courses that wound its way toward the gazebo and its koi pond at the bottom of the hill. Partway back up the hill, paths branch off, with one leading to the house level where the pool and spa are located. On that level, we installed layered rockwork around the existing shell, cantilevered the slabs for the decks to create outcroppings and used rock panels to recontour the shape of the pool to distort what had been a purely rectangular form.

The other path leads to a level below the pool and a hidden delight: a secluded cascade nestled in the slope below the pool. Silvery water pours and sheets over the rocks, filling the space with both vi-



A ROLE FOR PLANTS: Too often, rock compositions have a barren look that makes them seem austere and unnatural. In our work, we invest a substantial amount of time in establishing pockets to harbor plant materials that will grow around, between, over and down the artificial structures to soften the rockwork's appearance, draw attention to certain areas and, basically, give the composition a look that is natural while adding the distinct impression that the formations have been there for a long, long time.

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sual and aural delights, and the pathway is lined with Australian tree ferns that graze the skin and add to the sensory experience.

On that path, you descend further toward giant pines at the base of the property's north side, where you come upon a bridge we built as a prime viewing point for the waterfall below the pool. This fall is quite dramatic with its initial drop of eight feet, and there's a fire element located in the water behind the weir.

This composition also features a number of smaller cascades and pools as well as a number of cantilevered outcroppings along the path that allow visitors to come in close proximity to the falls. It is also readily visible from some of the home's main public rooms and dining terraces.

This "firefall" feeds a sweeping, 150-foot stream that flows right under the bridge along a course punctuated by whitewater sections and sheer drops. The stream descends a full 40 feet over its length, leading the eye down toward the lower reaches of the property, where it terminates in a concrete-and-rock pond at the very base of the lot. Here, there's another waterfall – one, we're told, that regularly distracts golfers from their games.



Now back to the main event and the clients' desire to place a large waterfall right up against those big eucalyptus trees. I mentioned up front how important seeing things from a child's point of view is to me, and this proved especially true during design and construction of this structure despite all of its grown-up logistical, landscape and engineering issues.

Keeping that sense of wonder is fairly easy for me to do, because to this day I love to climb rocks (especially by waterfalls) and continue to share a visceral joy in the activity and in translating these experiences into lively watershapes for my clients. And here I had extra advantage of the scent and presence of those big trees above my head.

I started thinking of ways to make this high-rise waterfall as naturalistic as possible and of how the homeowners – and the trees – deserved no less. I began to picture a structure, not too gigantic, not too much in competition with the greenery, that used the graygreen eucalyptus leaves as a sheltering canopy.

Once I envisioned the waterfall, I immediately began thinking what it would be like to climb on it, in it and around it and what fun it would be to get into the falls, swim, splash, play and have the water sheeting down on my head and shoulders. Not only that, but I thought of exploring the structure for caves and openings and finding more falls and more pools. It occurred to me that being naturalistic was not limited to the realm of the visual: This feature could also be naturalistic in an *experiential* way.

Thus began our plans for a "tree fall in the round" – a sculptural structure offering a different experience from every angle. The crescent-shaped structure rises with the slope of the property and extends up into the canopy of the trees. From any distance, it's seen as a waterfall complex featuring literally dozens of falls, cascades and pools.

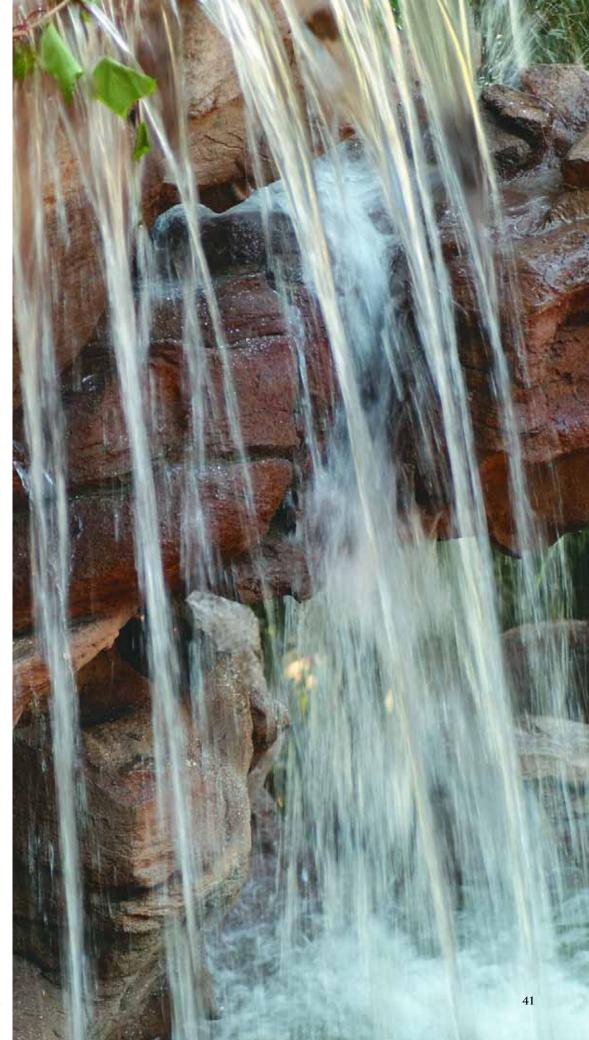
At the base is a rock-ledger path that leads into a large cavern located behind the main waterfall. There are access points that let you ascend both sides of the feature to an upper stage where a large wading pool is suspended above the cavern below. Here, you find yourself about 20 feet off the ground, high among the eucalyptus trees and exposed to beautiful views of the Bel Air Country Club in the distance.







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VARIETY IS THE SPICE: When we work on a project as large in scale as this one, we indulge a desire to please our clients by making the flows of water as visually engaging and aurally varied as possible. In this case, we used sheet falls, cross-currents, ribbon falls, flow-through clefts, water flowing in several directions across narrow fields of vision and a whole array of other 'looks' borrowed directly from natural cascades and streams to fill the space with beautifully composed views and wonderfully tuned sounds.

The wading pool also provides a beautiful and quite unexpected patch of liquid when seen from the upper levels of the house and its balconies.

Above the wading pool are several cascades and smaller pools that split, tumble, gather and flow in a variety of complex patterns down to the wading pool. The headwaters are located in a basin tucked way up in the tree canopy and almost completely hidden from view. As you enter this area, you walk under dramatic outcroppings that are part of the cascade system. There are also small flows of water that run around and hug "bleeding" rocks.

The action at this level has all sorts of consequences below.

Building a Mountain

The water flowing from on high moves to the wading pool, a free-form affair measuring about 20 feet long, ten feet wide and three feet deep in the space directly above the cavern. This pool has a beach entry to one side that has the appearance of naturally weathered slate. On another side are flat benches formed by striated rock outcroppings and a small rock-deck area.

Removed a bit from the wading pool is an entirely separate set of cascades, pools and falls that descend down the sides of the feature. These waters bypass the entire wading structure and don't contribute to the waterfall that fronts the cavern.

The cavern itself is on two levels with its own split-level wading pond. The opening is seven feet tall, and inside the full height rises to nine feet. The opening looks as though water has eroded natural fissures and created cutaways that allow light to penetrate the darkness. From here one can get behind the splashing, cooling waterfall and peer out through it. There are dry beaches and plateaus inside to which access is gained via a pathway that features a bridge and several dramatic outcroppings.

All rock panels were backfilled with steel-reinforced concrete, and up in the structure we worked with a column-andbeam grid not unlike something you'd see in the piles and concrete crossbeams of a parking garage. There's also a system of tube-steel columns that creates a structural wall that steps down the hill.

Although the structure was carefully devised and set on paper, we played with a number of aesthetic elements as we hung the faux-rock panels on the superstructure. As we worked, for example, we spontaneously established a variety of large and small cascades and pools, various fissures and outcroppings and a variety of places where people might comfortably sit or interact with the water.

For this project, my installation team of Mike Smith, Greg Acosta and Joe Centner worked like sculptors, engineers and mountain goats rolled into one, with their passion taking the work beyond the merely acceptable and into the realm of the truly extraordinary.

Full Flow

Given everything happening with the water, it's no surprise that our hydraulic planning was almost as intense as the structural work.

The circulation system's main driver is a five-horsepower EQ Series pump from Pentair (Sanford N.C.). This provides a flow of about 500 gallons per minute up the six-inch plumbing that branches off to various places where water enters the mountainous structure. A three-horse-power Whisperflo pump with a Triton filter and an automatic sanitizing system (all from Pentair) keep the water in the falls both clean and treated.

We set up a ball valve at each location where water emerges – 28 locations in all for the 40-foot waterfall alone – to give us the ability to adjust and vary flows throughout the system. The smallest line in the entire system is three inches, with upsized plumbing being our ticket to slower velocity and greater efficiency.

The slower flows also serve the natural aesthetic by allowing the various areas to feed, fill and spill into the various water effects instead of seeming like gushers erupting unnaturally into the space.

We used a variety of strategies to conceal return points. In many cases, we'd send a slow sheet of water over a worn, rounded rock to give the impression of water coursing naturally through a stream. In other areas, we'd send water

cutting through fissures or in and around rocks that feed stilling ponds that ultimately flow over weirs. We also worked with rock faces, making water flow over surfaces in a sort of weeping-wall effect.

Once all these flows and changes in level were organized, we filled the system with water for a crucial test run. This enabled us to fine-tune weir configurations and water courses – a good idea in any artificial-rock project as a last step before the time-consuming finishing process begins.

We also outfitted the waterfeature structure with a variety of pockets to accommodate plants as well as a complex lighting system that highlights certain spaces in juxtaposition with areas of depth and shadow that lend character to the composition after dark. We hand-carved a fallen tree trunk for the cavern as artful cover for a support column. Finally, there's a fog system that can be used to give the structure a dramatic "misty mountain" appearance while offering a measure of cooling on hot summer days.

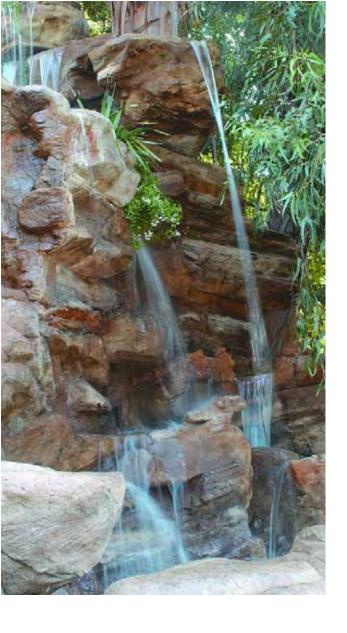
Finishing Touches

Once we had all the flows, formations, access ways and paths exactly as they needed to be, we went back to every exposed bit of surface, painstakingly staining and coloring each with multiple layers of stain, acid and texturing. This is our long suit: We go to extreme lengths to deepen color in crevices, for example, or lighten stone on surfaces that would have been more exposed to weather to give a sense that the composition has been there for ages under influence of the elements.

You can end up chasing your tail in a project such as this, because the amount of detail that can be imposed in the finishing stage is quite literally never-ending. It is, in fact, amazingly difficult to know when you're really "done."

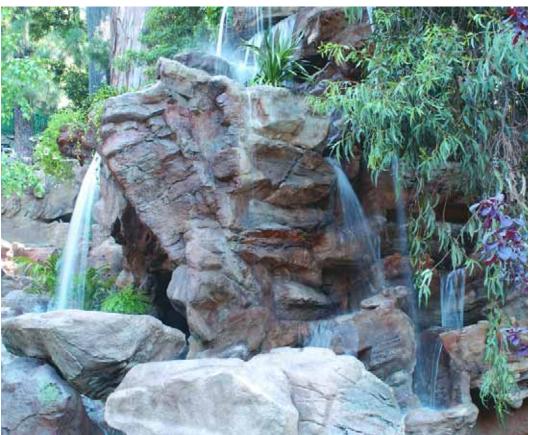
Our key: If the result actually achieves the initial goal – that is, the creation of a realistic, natural environment – and we have managed to create areas of focus and interest throughout that create an atmosphere of fun and relaxation, then we are ready to move on.

In this case, there were happy smiles all around.









SPLENDOR ON HIGH: All of the principles of design and composition we pursued in this project – fine rockwork, careful inclusion of plants, a focus on variety in water flows – come together resoundingly in the big waterfall structure that serves as the backyard's focus. Height alone gives the composition a sense of drama and grandeur, but the fact that everything is framed by beautiful, established eucalyptus trees lends it a sense of timelessness that brings smiles to both the homeowners and to our entire staff.



The works of sculptor David Curt Morris often combine moving water with simple yet striking shapes in glass or metal. His meticulous compositions speak to observers by juxtaposing the kinetic potential of water against static structures – perhaps something as simple as water flowing over glass surfaces – to exploit what he calls the 'colors' of water in motion in a philosophy and a design approach that cuts to the essence of what watershaping is all about.

I'm particularly interested in the behavior of water.

To me as a sculptor, differing water flows and their textures are like "colors" to a painter: I find a color that holds meaning for me and then look for a structural form that can present it. To this extent, my artistic medium is the behavior of water and the means to make it behave. The sculpture in this case is water combined with a structure in steel, stone and equipment.

The work is abstract: abstractions of feelings related to the movement of animals, people, fish and the flows of water in streams, rivers, rain – even the flow of numbers. As a result, I need metaphors and feelings to drive my creative expressions, then use water and other sculptural elements in much the same way a choreographer might use line and gesture to express a feeling or a composer will use chord changes and musical phrasing.

My hope is that, in creating forms that are meaningful to me, other people will have similar thoughts and feelings as they view my work.

Water at Work

Water is indeed a wonderful medium, but to be honest, the machinery needed to realize sculptures with water is not very flexible – and it's *certainly* not the easiest to work with in comparison to, say, chalk, acrylic or pencil on paper, all of which are very direct. Instead, working with water requires many interim stages between the initial idea and the final expression.

The work starts out with a sketch and then the hard work begins. This process of taking drawings and translating them to real works of water and glass or bronze requires a tremendous amount of technical development and testing. The main challenge is to make the result feel as fresh as the original drawing. If I feel I have succeeded, it is because the idea is clear to

the observer and the means I've used to express it remain transparent.

One of the best things about working with water is that it offers varying levels of participation for the observer, so I'm constantly imagining the way people will interact with the work. For example, pieces are often designed with the idea that children will play in the water. To be sure, it is the rare child who will appreciate the artistic or poetic subtleties of an artwork; conversely, I know that adults who are best able to appreciate the *meaning* of a work won't tend to have much interest in *playing* in the water.

Designing for both play and art appreciation requires that I keep both of these distinct viewpoints in mind. Most artwork isn't overtly designed for such dual purposes. In a piece with moving water, it's reasonable to expect people to approach and touch the water — a tactile level of participation. But they could just as easily stand back and consider it purely as expression of an artistic/visual idea.

There is, however, a synergy between those forms of participation in that water almost always attracts attention and that, in a very real sense, the presence of water in a sculpture invites people to come close enough to the piece to touch it. As an artist, I love that potential and work with it whenever and wherever I can.

This experience is very different from what happens when sculpture is seen in a gallery. When I see a beautifully carved piece of stone, for example, I want to touch it – and resent the fact that most of the time I'm not allowed to do so. I understand the reasons why, of course, but there's no doubt that prohibiting the tactile experience limits the experience one has with a work of art.

Power in Simplicity

What I like about water, in other

words, is that it gives the person experiencing the work permission to touch. In a way, it's like pulling back a curtain: At one moment, you are experiencing an artistic idea; at another, you're experiencing the water and are invited inside to see how the "theatrical" effect is achieved. Thus, the experience I had in creating the work is shared.

In many ways, this is a line that architects often walk: There's an aesthetic/design mission they must carry out, but they also have to keep people dry when it rains. To succeed, their work has to function on two levels, as an art experience and as a life experience.

Oil paintings on canvas do not provide that dual experience, nor does photography, nor do many other kinds of sculpture. But sculpture *with water* does, and this adds a dimension I find enormously challenging and fascinating.

There's no mistaking the fact that what I do with water involves both aesthetic and technical complexities, which is why I always try to find the simplest possible means of expression. (To paraphrase Picasso, "If you have four colors, use three.") My belief in this principle has remained constant through the years, although I have sometimes had to fight my own fascination with the beauty of technically complex systems. But for any observer, the personality of a bird comes before the science of the bird.

From time to time I have been able to substitute a simpler method after revisiting a technique, and the entire design process becomes more refined — and more pleasurable to me. For this reason, I have little interest in excessive embellishment and am of the mind that the most challenging thing is to find a clear melody: For all its ornamentation, a symphony can still use a simple melody as a point of departure.

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Birds on a Wire





Rain

This is an example of a mechanical refinement: The motion of the wands in this composition, which was installed in 2000, is free of external controls as a result of careful engineering that simplified the design while allowing the coupled wands to find their own rhythm. (For more on this project, see "Spirited Waters" in *Watershapes* 'March 2004 issue, page 34.)





Completed in 1995, this project for the Oregon Museum of Science & Industry began with an investigation of the classic bamboo Japanese garden Deer Chaser— and resulted in a composition of different-sized water-pouring wands that move in differing directions with a widely varying syncopation.

It occurred to me early on that the rhythm I was considering was reminiscent of the actions of a gathering of birds on a telephone wire – a community of individuals acting in concert. This became the poetic idea that bound the concept together.

Seven choreographed performances were programmed into a standalone computer. These performances range from what appears to be random action to synchronized dances. And for the fun of it, within one of them is a sequence that determines that two opposing pours will intersect and clash in midair.

This is the most complex design I've executed. Although each wand is self-motivated, all are assisted by the computer system. The performances mentioned above override and regulate movements, but these performances can be disengaged, and the entire system will settle into its own rhythm.

Measured amounts of water are delivered to the pipes through swivel fittings: The wands begin to fill and soon overturn to pour approximately 10 gallons of water in pure and clean streams that flow down 35 feet to a collection basin. Once a limiting point is reached, pneumatically effected lever arms attached to the wands dampen their movement in both directions to guarantee smooth and graceful motion.

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This piece is meant to convey a temporal action embedded within all time. In this case, the glass shape derives from the double-looped infinity symbol.

One notes that the water flows contrary to the expected flow of the infinite cycle: In fact, there are points where the water flow splits and later rejoins in defiance of the infinite cycle. This is made possible by a simple but compelling phenomenon of adhesion of water to glass. Careful studies of the limits of surface tension allowed for a well-behaved flow.





dCC

Clear crystal glass was formed to suggest the cresting of a wave, but by contrast, the water sheet takes its own sweet time in mov-



Here are two pieces with contrasting water qualities – one a ragged vertical curtain (as shown in a gallery), the other a clear vertical window (as installed in a garden in Santa Barbara, Calif., in 1992).

ing along the glass surface.



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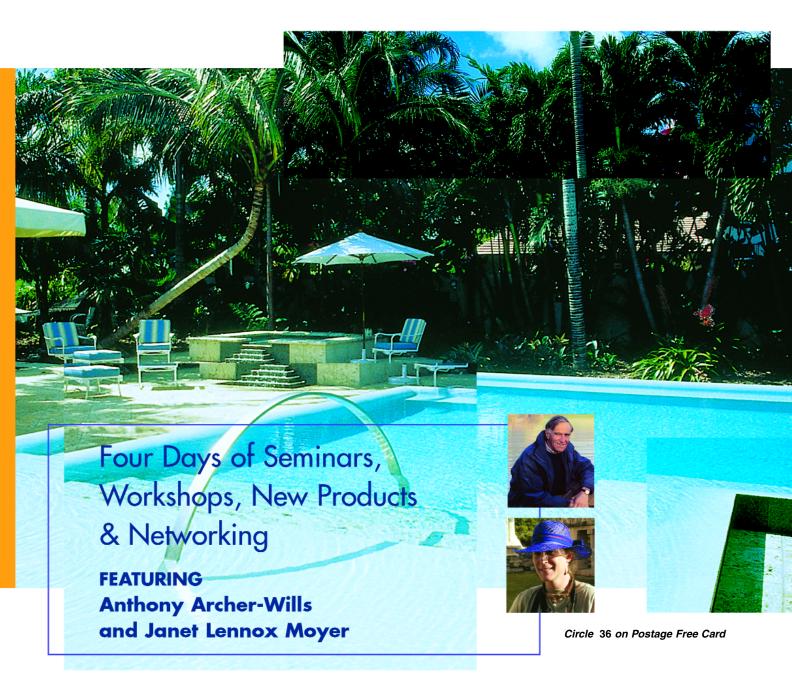
The structure of aquatic grasses and the notion of rain pouring to their roots led to this composition. The V-shaped grass sections lend strength and flexibility while giving the water natural troughs through which to flow. The visual-design challenge centered on the rhythm of interruptions in the form of hurdles for the water within the troughs as well as the arrangement of the "grass blades."

The design process began with waterproofed cardboard mockups to assess water behavior and was followed by a fine-tuned plastic version. Taken to a foundry, a bronze casting was made through a loss-plastic-investment casting method. Within each hollow casting is a copper pipe that delivers the recycled water reliably to a top weir in each frond.

The title of this 1989 work came from the person who commissioned it, Willoughby Bishop. She has a large garden on Vashon Island in Washington, within which is a place for healing and meditation.



DesignRevolution







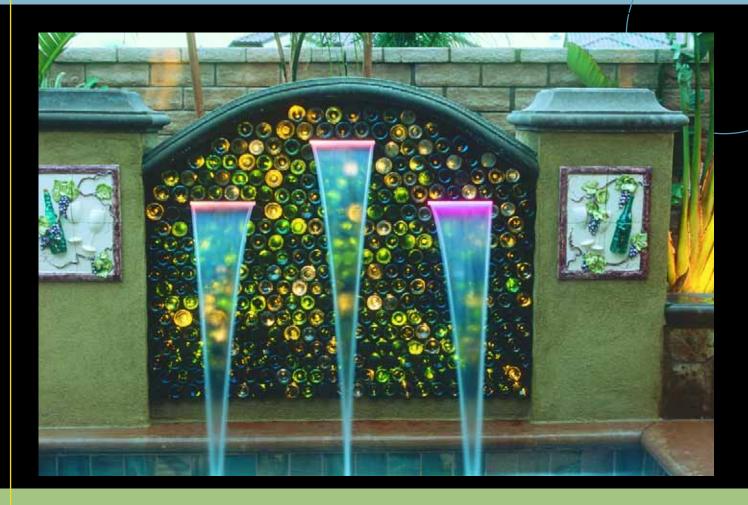
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MANDALAY BAY • LAS VEGAS, NEVADA

Most people I know have a favorite vacation spot, a favorite leisure-time activity and a favorite form of self-indulgence. In creating backyard environments for these folks, we as watershapers and landscape designers and architects often find ourselves able to roll elements of one, two or all three This our take their very us to design the Green Scane are known for attaining the first their very the staff at The Green Scane are known for attaining the first their very the of those "favorite things" up in a single package in ways that closely reflect our clients' passions At my company, we strive to make a direct connection with those preferences by letting our prospective clients know that we want to enable them to vacation in their own backyards and come home to outdoor environments that epitomize the good life. In some cases, that means establishing family fun zones, but quite often these days, it also means pro-This concept of aligning projects with client desires is nothing new, of course, but our take on it at The Green Scene (Canoga Park, Calif.) involves zeroing in on their very specific notions of fun, leisure and entertainment in ways that lead us to designs that definitely distinguish our work in their eyes. These days, with aging Baby Boomers rapidly embracing food, wine, high-end spirits and other symbols of success – and coming to value the ability to enjoy them with friends in the safety and comfort of their own homes - we've focused our efforts on developing thematic approaches to our work that reinforce their perceptions of living the good life. Make no bones about it, this is all about fun. But it's also about them being proud of o o his clients of his clients of the clients of th

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their homes and their achievements and represents their desire to share fun experiences with family and friends.

To demonstrate what I mean by this and how it translates into the practicalities of design and construction, we'll visit three projects in which we've gone well beyond simply providing a venue for bathing, eating and drinking and have developed themed features that overtly celebrate our clients' lifestyles. Bottom line: We want them and their guests to talk about these bold spaces and have fun in them.

I write this knowing that watershaping and landscaping can be so challenging (and costly to clients) that it's easy to forget that our work can be about fun and whimsy. To counter that, we deliberately avoid getting too serious about our work and roll through possibilities that are off the beaten track in attempting to keep our eyes squarely on the essence of recreation while making things amusing, light-hearted and openly indulgent.

Our lack of "seriousness" has nothing to do with the high standards to which we hold ourselves in designing, engineering and constructing these projects. It's just that we self-consciously inject a sense of joy, keep the trappings of the good life in mind and do all we can to avoid sinking our clients' good moods.

One of the great things about working with the libation theme seen in the projects discussed here is, of course, that there's never any question that the result will invariably say something about having a good time. To be sure, these projects are few and far between, but they do speak to the fun you can deliver when you take the time to delve into clients' interests and favorite recreational activities.

As we see it, there's great fun to be had (and good business, too) in making clients happy. In these cases, it's also great to think that these folks in particular will be toasting to the good life in the midst of environments they helped us create.

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With a Twist

These clients just love entertaining, but they originally didn't have the yard for it.

The space was small, confining and completely lacking in personality, with a steep upslope that consumed much of the available square footage. Despite the limitations, however, they wanted a pool and an outdoor stage for parties. More than that, they wanted to make a statement about their lust for life, which, among other things, includes a passion for mixing, serving and drinking martinis.

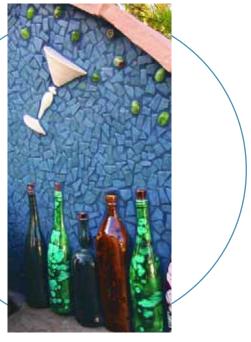
In our design, we cut into the slope, surmounted the far side of the pool with a retaining wall and opened up the space to include not only the pool but also some waterfeatures and a serving area.

Early on, we came up with the idea of creating a martini glass in which a bather could stand. The "glass" is actually a deep spa on one end of the pool that measures six feet in diameter by five feet deep. As one stands in it, sets of six jets either pulsate or create a whirlpool, giving the bather a choice between being shaken or stirred amid pearlescent one-by-one-inch tiles.

There's a large swim-up bar with four stools and ready access to the serving counter. There's also a barbecue counter with a backsplash that echoes the martini theme. To personalize things, we borrowed a martini glass from the clients and used it to make a mold for the porcelain half-glasses installed within the tile finish. We also used real olives in casting those tiles, as well as gin bottles for the detail that cuts across the bottom of the backsplash.

The clients were involved in this process, visiting my ceramics studio with their kids to paint the olives and the bottles. It was great fun that reveals itself in the final product, but in more practical terms, when you find ways like this to involve the clients, their focus shifts from what the square-foot cost of a material is to the idea that even during construction they're having a good time.







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HOW GOOD DO YOU WANT TO BE?



Pool & Watershape Construction School October 13-15, 2005

> Baltimore, Maryland Program Cost: \$1,950

In keeping with our mission of advancing education on a global level, we are pleased to announce our new Genesis 3 Pool & Watershape Construction School as the latest component in our design-certification program. The new school's curriculum covers plan review, excavation, layout, soil and drainage, steel placement, plumbing, utilities, gunite, tile and coping, decks and drainage, remote controls, automation, plaster and start-up — with top-flight tradespeople, designers and engineers from the industry as instructors. The school will be held in the Inner Harbor on the Baltimore Waterfront. Program cost includes accommodations for three nights, meals and course materials.

Level I Design School October 19-23, 2005

> Morro Bay, California Program Cost: \$3,500

Our flagship program focuses on introducing participants to the Genesis 3 philosophy and our practical approach to watershape design and construction. Sessions focus on drawing and presentation techniques, design principles, engineering details, vanishing-edge design and construction, hydraulics, the history of pools and fountains — and much more. Enrollment is limited to ensure personalized instruction, and all courses are taught by recognized industry experts. There's also a lifestyle component to the school, so participants are encouraged to bring a spouse or guest (additional cost: \$950). Program cost includes accommodations for four nights, meals and all course materials.

Landscape Lighting Institute December 10-16, 2005

Scottsdale, Arizona Program Cost: \$4,100

Come spend five days and nights with world-renowned lighting designer Janet Lennox Moyer and associates to learn all about the art of lighting exterior spaces. Structured to familiarize participants with what's needed to develop and achieve a number of lighting effects in their own projects, the intensive program will include technical information and an introduction to lighting-design concepts as well as design workshops and five nights of hands-on exploration of lighting techniques. The school will be held at the exclusive Hyatt Regency Scottsdale Resort & Spa at Gainey Ranch in the Sonoran Desert. Program cost includes accommodations for six nights, meals and course materials.



Founded by: David Tisherman, Skip Phillips and Brian Van Bower

(615) 907-1274 / Toll Free: (877) 513-5800 / FAX: (615) 907-7338 / www.genesis3.com / lisa@genesis3.com

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Vinter's Delight

During our interviews with these clients, they told us that they were passionate about collecting and drinking fine wine and let us know how much they enjoyed sharing it with friends. These folks definitely aren't alone: Many of our clients, especially well-to-do Baby Boomers, have gotten into wine with gusto in recent years, and we've found success in a couple of cases by indulging their hobbies in decorative ways.

The project shown here is the second time we've used real wine bottles in a design – in this case in a barbecue center located just outside the clients' dining room. The structure is quite heavy – a cast concrete countertop supported by a steel-reinforced, concrete-block frame –

but none of the weight is carried by the bottles themselves.

We fixed the bottles in place with a clear silicone caulk. We then worked in a deep concrete grout joint that can't be seen. (Only the bottoms of the bottles are visible, as we were concerned about exposed tops being broken and becoming hazards.) We worked carefully to mix bottle colors in a random way, but we encountered a surprising challenge in finding enough bottles of a consistent diameter.

In all, there are 330 wine bottles in the counter, illuminated with a color wheel feeding 500 fiberoptic strands – one strand each for light-colored bottles and two or three for dark-colored bottles. This was important in

achieving a soft, consistent glow.

In setting up the lights, we learned an interesting lesson: To hold the strands in place, we pushed corks back into the bottles after dipping them in vegetable oil. We had cleaned the bottles, but they weren't dry inside when we set the corks. When the bottles heated up that first summer, the moisture expanded in the bottles and many of the corks popped out, leaving us with a tangle of expelled fiberoptic strands.

It took us hours to figure out which strands should go to which bottles. As a result, when we illuminate wine bottles these days, we use liquid silicon to ease the corks in – but only after *thoroughly* drying the bottles' interiors!





Conversational Cues

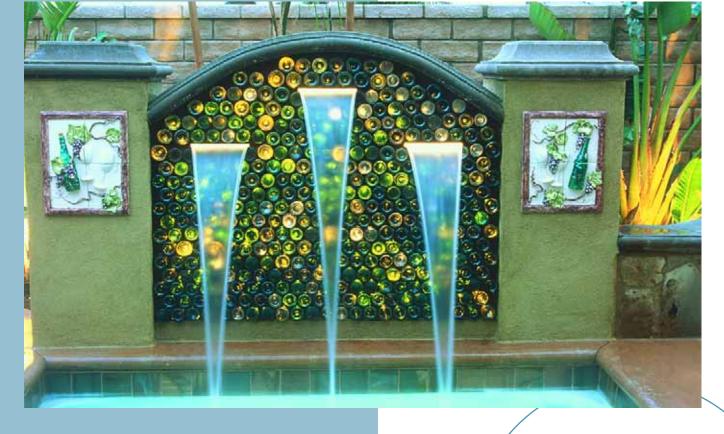
It's important to note that our designs are the result of a systematic approach we use with all of our clients.

At the outset of each project, we run them through a questionnaire that asks them to reveal their favorite travel destinations, tell us what they like to do when they're not working, what they collect, their favorite reading material, what sorts of movies they most enjoy and more.

We use the information to get inside their heads and find interesting, creative ways to tie our work to their personal lives. That gives us the opportunity to do something special. Often, that means work that is decidedly fun or even humorous in nature.

For the clients in the projects featured in the accompanying text – and others besides who've pick up on this libation theme – it's clear that they all enjoy a good party!

-S.C.



Spa Nectar

Shortly after we finished the wine-bottle barbecue counter, we were contacted by close neighbors – another pair of passionate wine people – who'd liked what they'd seen and wanted the same treatment for their own backyard. We let them know that we didn't think it would be proper to do the exact same thing but assured them at the same time that we'd come up with something special just for them.

We built them a beautiful barbecue area to meet that need, but for the wine-bottle detail we shifted our attention to the spa and a design that includes a raised wall outfitted with a waterfall and 450 stacked wine bottles. (With so many bottles, we conferred with our structural engineer to make certain they would be strong enough to carry the weight. With some testing, we determined that they had as much strength as glass block!)

The spa is a pre-fabricated shell that wouldn't sustain any surcharge, so we designed the waterfall with a footing that reaches five feet below grade – that is, below the depth of the spa. The wall is 14 feet across and five feet tall, with bottles spanning ten feet flanked by two-by-two-foot pilasters on each end.

There was a hitch in that nobody at the permit office had ever seen wine bottles used in a waterfall before and we had to prove to official satisfaction that the bottles could support the weight and would be stable enough that the wall wouldn't collapse and fall into the spa. With the engineer's help, we won them over.

Placing the three waterfall weirs amid the bottles was a bit of a challenge, but once we cut the tops of the bottles to accommodate the reservoir on the back, the rest of the installation process was easy. One difference this time is that we used a sparkler wheel in the fiberoptic illuminator: This lights only some of the fibers at any given time and makes the bottles appear to dance – a spectacular effect.





COMPCTC By Sheri & Roger Soares II CONTEMPORALY

It's a rare project in which a watershaper has the opportunity to execute a complete design without compromise.

In our Scottsdale, Ariz.-based business, we often work with upscale clients on custom pool and spa installations, and it seems that there's always *some* element or other in the design that ends up being altered or left out. It sometimes reaches the point where we start to feel as though the result, although it may be satisfying to the client, is not fully reflective of our talent, our vision or our best effort.

The project pictured in these pages, however, is a dramatic exception to that rule. Although the clients were involved with general suggestions during the design process and construction project, when it came down to details of the plan, they let us go ahead and create an environment that fully reflected our creative vision.

They'd seen one of our projects in a local "Street of Dreams" program in which area contractors were selected to build spec homes on the same street in a town Taking great pride in developing watershape and landscape designs that combine an appreciation for the setting with an understanding of the clients' tastes, Roger and Sheri Soares have prospered for years on the high end of the hotly competitive Phoenix marketplace. In this project, they took advantage of spectacular views, blended their work into a hillside and worked out all the harmonic links between the desert and the home's modern style.

just north of Scottdale called Troon. Once the row of homes was completed, there were tours, awards and lots of media coverage – quite the high-profile affair.

The clients had been in contact with four or five different pool builders in the area, but they'd never been satisfied by their designs. About a year after the Street of Dreams project had been completed and after visiting with a friend for whom we'd built a pool, the clients asked us to develop a design. We did so, and they decided that we were the right firm for the job.

Camelback View

The project that developed was both exciting and challenging in scope and technical sophistication. The home sits on a hillside lot with a spectacular view of Camelback Mountain, one of the most prominent of the many beautiful geological features in Paradise Valley. The swimming pool is surrounded by broad decks in front of the home, with all points designed to take advantage of the sweeping vistas.





The pad for the house was cut out of the hillside, and the space to the front falls off as a steep slope on which the pool was to go. As such, the pool would be visible from the downhill approach to the lot. (In fact, on clear days it would be visible literally from *miles* away.)

It was, in short, a high-profile spot and the pool's appearance would be crucial to the home's overall appearance. The "solution" other firms offered was invariably to cantilever the pool out from the slope, which in each case meant building a high exterior wall. The clients didn't want to become known as the "people with the huge wall" and turned to us to develop an alternative.

We solved the problem by adding a step down from the existing decking into a relatively shallow pool we would tuck into the space in such a way that the slope would rise to the rim of the vanishingedge trough. This enabled us to squeeze the forward profile of the pool and make the vanishing-edge wall a more integratSeen before we began our work, the front of the home was presentable but hardly dramatic (A) – and the small backyard was not only cramped, but it also isolated the homeowners and their guests from breathtaking views available at the front of the property (B).



ed detail rather than something that dominated the view from below.

The house has a tasteful contemporary/formal design, so we set up the pool and other elements to echo its rectilinear shapes. Every line was accordingly clean and crisp, but we softened the overall appearance with a warm, natural color palette. At this point, the home's interiors had been completed in gorgeous detail. The exterior finishes, however, were still works in progress.

As is true of many of our high-end clients, a great deal of entertaining was part of their lifestyle, and it was important to them that everything outside made as strong a statement as the beautifully appointed interiors. They wanted us to start with the swimming pool, but they made it clear that they also wanted us to develop all of the exterior spaces, including a side yard, a courtyard and the slope behind the house. So in addition to the vanishing-edge pool, they wanted us to include a spa, a separate waterfeature, an outdoor



Now the approach to the home is marked by a dramatic stairway and, to the left, by the sight of multi-colored, glistening tile and the soothing sounds of water flowing over the vanishing-edge wall (C). Reaching the top of the stairs, you see the pool as well as an inviting, open-air deck that takes in all the views (D)



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Code Quirks

Given all the details of the project described in the accompanying text, it's ironic that the only significant delay – two months in all – came as a result of the fact that the city's chief inspector had never seen a structure quite like this and basically had to educate himself on the overall design before he'd sign off on the work.

The big sticking point: the gas lines we wanted for the heaters, outdoor cooking and fire pit. We'd set things up in such a way that we were tying into the existing gas line for the indoor fireplace. The city wanted us to run the added lines over the roof using piping we knew would be destroyed by the area's huge population of woodpeckers.

We made our case and passed that hurdle, after which the remainder of the construction process went quite smoothly.

-S. & R.S.

dining/entertainment area, broad decking and a fire element as well as fences and defined seating areas.

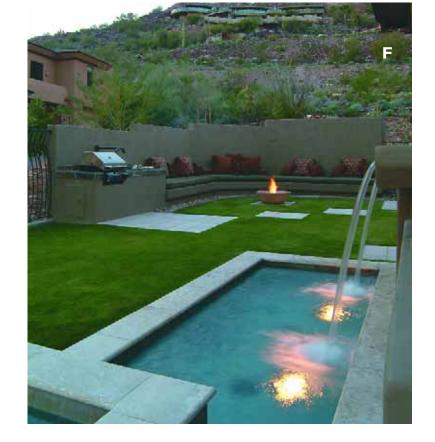
The Big Picture

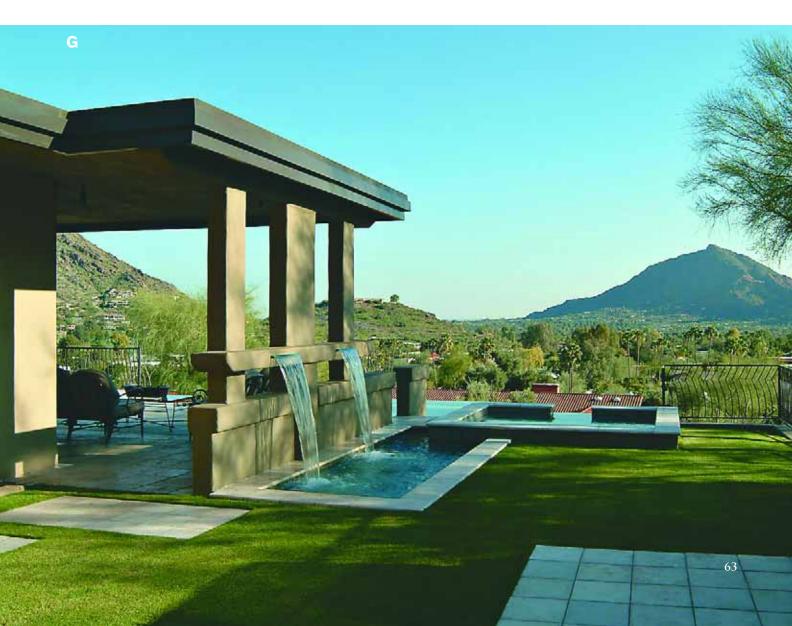
The pool itself features roughly 70 feet of vanishing edge with four corners in all – three outside corners and one inside. The rectilinear sections are of varying widths, and the pool's depth ranges from five feet at the vanishing-edge wall to three-and-a-half feet on the house side. There's a broad bench right below the house-side wall that stretches the length of the pool. The spillway spa is an eight-by-eight-foot square that rises above the pool.

Materials selections were critical. We selected a bone/creamcolored Mexican travertine to finish the decking that completely encircles the house. In the rear patio and the front entry, we changed the palette with a slate that included a variety of greens, browns and gold.

The interior of the pool is finished with a polished Hydrazzo finish called Desert Sage (supplied by Aquavations, South Miami, Fla.). This has a gray background highlighted by flecks of black, green and cream and was complemented by a random-size, random-pattern tile detail on the outside of the vanishing-edge wall

Passing the edge of the pool at deck level, you turn a corner into a side yard that encompasses an expanse of prime entertainment space (E) highlighted by spillways into a reflecting pool, a fire effect and an outdoor kitchen (F). Turning back once you reach the far end of the yard, you see mountain and desert views in the distance (G).





– five sizes of multicolored tile in three combinations of green, orange, brown and cream. We spent hours developing the pattern to ensure its randomness.

The waterfeature, which has a pair of Custom Cascades weirs (Oreq Corp., Temecula, Calif.), is located on the side of the house near one end of the pool. It's positioned in such a way that you pass between the waterfeature and pool on the way to the spa. By slightly cantilevering the edges of the deck over the water's surface, we create the impression that you're crossing over a single, interconnected system, but the waterfeature only appears to share water with the pool.

The side yard includes an outdoor cooking area built into a retaining wall. Next to that is a property-line wall that blocks out views of the neighbor's house and has a broad bench for lounging. Nearby is a small fire pit: We had originally discussed an outdoor fireplace, but the clients wanted guests to be able to stand around the fire on all sides for comfort on chilly desert evenings. The fire issues from a wok-style bowl that rises just a few inches above the surrounding decking.

We worked with a landscape architect the clients had known before; he was brought in later in the project to work on the planting plan, which included a variety of cacti, desert shrubs and indigenous trees. There was also a *tremendous* amount of landscape lighting (well beyond 200 fixtures, in fact) to highlight not only the pool and other hardscape structures, but the plants as well. The lighting system was designed by Scott Freymuller of Out in Back Landscaping & Lighting in Scottsdale.



The space behind the house is still hemmed in (H), but the installation of landscape lighting has opened it out to become a more inviting after-dark refuge and entertainment space (I).



Construction Cues

Once we nailed down the design, a reasonably challenging construction phase followed.

Our first step involved removing several square feet of existing deck slab and a small 93-foot wall to insert the new step down to the pool level. Over where the waterfeature was to be, we needed to remove posts that held up an overhanging roof and had to rig up supports that would carry its substantial weight until the work below was completed.

The soils presented some difficulty, as testing indicated that we were working with a mixed bag of sandstone, bedrock, loam and clay. (According to local construction codes, we were required to provide inspectors with nothing more than a 12-inch compaction test, but we typically call for full-blown soils reports. In this case, testing gave the clients peace of mind, because they had seen a neighbor's hillside pool crack and start to fall down the slope.)

Taking a lead from the soils report, the

structural engineer for this project called for a pair of two-by-two keyhole footings to run the length of the vanishing-edge wall on one side and under the backside of the pool and beneath the spa wall on the other.

Once we got into the construction of the pool itself, the main challenge was the precision required with the forming and the elevations. With a composite vanishing-edge design such as this – especially one with an all-tile exterior finish – the elevations have to be as close to perfection as possible. Getting everything just right was further complicated by the fact that we wanted the grout lines on the pool walls to align with the grid of the travertine decking.

In other words, our work in establishing the steel cage and forming walls was critical if we were to be able to carry the visual program out to the degree of detail we all wanted to see.

The surge capacity for the pool is all contained in the trough that follows the entire downslope contour of the pool. The

trough was set up below grade to minimize its profile from below. In fact, the only part of the trough that's visible is a small travertine cap on the outside wall.

The decking between the house and the pool is tied to the house side of the pool with structural steel in the concrete subbase. This made insertion of a pair of steps that move bathers right into the water below the deck a rather tricky process. Interestingly, however, this didn't slow us down nearly as much as a misunderstanding about placement of gas lines (see the sidebar on page 62 for this story).

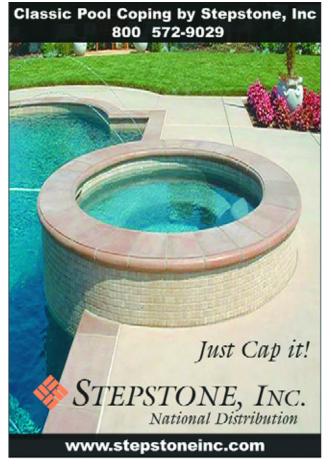
Clean Details

As is true of most quality projects, the real magic of the design is expressed in its details:

The water: We consider polished water a key finish detail and saw the equipment set located down the slope from the pool as being as important as any part of the aesthetic program. The pad is located well below the waterline, blocked from



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view by a wall that visually ties in with the rest of the hardscape. For the most part, we used equipment from Jandy (Petaluma, Calif.), including separate pumps for the spa, cartridge filter system and vanishing edge, all managed by an Aqualink control system. The water is sanitized by a salt chlorinator that will eventually be supplemented with an ozonator.

The exterior tile: The vanishing-edge

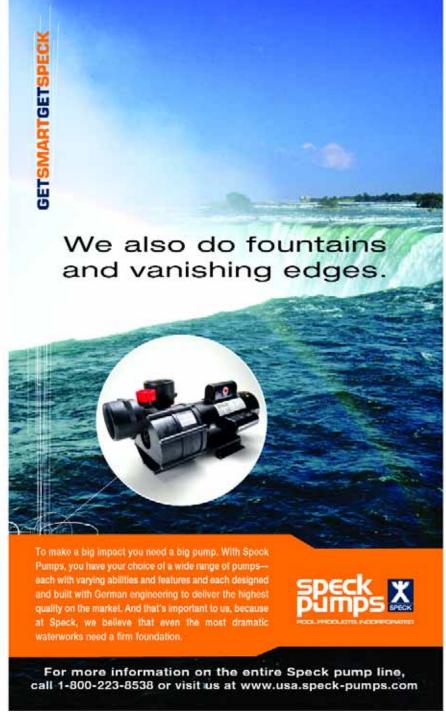
wall's tile was another critical detail. We know from experience that water flows away from the corners of a vanishing edge as it pours down the face of the wall. To create a uniform flow to be captured by the lighting, our tilesetters slightly lowered the tile at the corners. The variation is imperceptible to the eye, but it increases flow at those points just enough to even out its appearance along the entire wall.





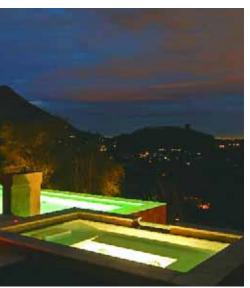
Sound: We spent a good amount of time tuning the flow over the waterfeature's dual weirs. The clients wanted just enough sound to fill the space without disrupting conversation. It took a good bit of trial and error, but the result works to everyone's satisfaction.

Spa comfort: The spa has a taperingback detail for bather comfort, and we also paved the way for happy spa experiences by custom-fitting the jet systems to the clients' own bodies. (There was quite a height difference between them.) In addition, we like to place jets in vertical pairs about four inches apart so there are jets on either side of the spine. I can testify from personal experience that this makes an amazing difference in comfort



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The lighting program for the property included much more than the usual illumination inside various watershapes, although those were certainly important (J, K). Much of the effort, however, went into defining key landscape features and plants with light and making the overall space both luminous and inviting (L).

and hydrotherapeutic performance.

- ▶ **Lighting niches:** Lighting of the vanishing edge wall was a key detail because it could and would be seen from a great distance. As we set the steel and light-niche locations in the trough, I set up the niche angles precisely so light would give the impression that it was dancing in the water on the vanishing edge wall.
- ▶ **Key plants:** We worked with the landscape architect and our own landscape installer to nail down the location of the key plantings, especially those that would eventually be reflected on the surface of the water. We also went to great pains to amend the soil before inserting any plants: With so much concrete work all around the site, we knew we had to remove mineral-tainted soil and replace it with fresh planting soil that had a few weeks to establish itself.
- **Landscape lights:** Landscape illumination was a major part of our finish work as well. We installed fixtures (sometimes as many as three) around specimen trees, cacti and other interesting plants throughout the property. We also placed

fixtures on the home and had special mounting brackets made for the job. We also used bulbs of numerous wattages and various diffuser lenses to achieve the desire effects. In all cases, the fixtures were supplied by Unique Lighting (Escondido, Calif.).

The Home Front

As we were adding finishing touches to the watershapes and wrapping up our work on the rest of the project, the homeowners asked us to complete the scene by repainting the house and reworking some of its construction details.

Using the color palette of the hardscape as a point of departure, we came up with a total of four different paint colors, all subtle variations on the travertine's warm beige/cream tones.

This wasn't the first time we'd painted a house to integrate it with our watershape and landscape work; in fact, we're more than happy to finish a project by harmonizing the color of the home with the rest of the scene and take it as a sure sign that our clients are truly happy with the work we've done.

In this case, and given our complete treatment of the exterior spaces, finishing off with a bit of work on the home's exterior was the perfect conclusion to what has clearly been one of our most satisfying projects to date. Projects such as this one don't come along every day, of course, but when they do, it's truly a delight to be able to give the client something complete, comprehensive and utterly special.

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The following information has been provided to WaterShapes by product suppliers. To find out how to contact these companies, look for the Product Information Card located on page 70.

POOL-DESIGN TEMPLATES

Circle 135 on Reader Service Card



PARAMOUNT POOL & SPA SYSTEMS has introduced Liquid Studio Draw, a drawing-design template book and CD set. The set includes 130 pool and spa templates on acetate paper, and there's also a book of free-form layouts for tracing. The materials are packaged in a lightweight carrying case com-

plete with a holder for pens, pencils and small measuring tools. **Paramount Pool & Spa Systems**, Tempe, AZ.

CD PLANT GUIDE

Circle 136 on Reader Service Card

HORTICOPIA has released Horticopia Professional XE, a CD-based compendium on 8,700 woody and herbaceous ornamental plants. Clicking the mouse gives the user access to plant synonyms, pronunciation of botanical names and more than 21,000 photographs. Selections can be filtered by hardiness, bloom colors, height and any combination of plant attributes for printing and easy use. **Horticopia**, Purcellville, VA.



MULTI-SHAPE POND KITS

Circle 137 on Reader Service Card



INTER-FAB has introduced Echoes of Nature pond kits. Designed for easy installation, the kits feature multiple shape options through different deployments of the rock surrounds and include all materials and equipment needed to contain and circulate

the water, including 45-mil EPDM liners and 1,450 gpm pumps. There are also artificial-rock waterfalls, accent boulders and a coping system. **Inter-Fab**, Tucson, AZ.

HIGH-FLOW PUMPS

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AQUA ULTRAVIOLET offers the Sunami line of high-flow, self-priming pumps. Designed for cost efficiency, low maintenance and high performance, the pumps have 3-inch inlets and outlets and flow rates up to 220 gpm in sizes from 1/3 to 5 hp.



They feature high-efficiency impellers, quiet operation, large leaf baskets and tool-free access to the strainer basket and pump internals. **Aqua Ultraviolet**, Temecula, CA.







STONE 'RUGS'

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OLDCASTLE has introduced Belgard Paver Stone "rugs" that allow consumers to visualize their patio, pool deck or walkway designs. The

patented rugs replace the on-site use of blocks and sample boards, rolling out to cover the proposed project space so homeowners can gauge colors and how the project will look when finished. The rugs are available in sizes from 25 to more than 100 square feet. **Oldcastle**, Atlanta, GA.

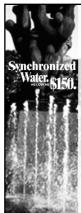
Continued on page 72

CORRECTION:

On page 62 of our April 2005 issue, we printed an *Of Interest* item on Pebble Technology's new Pebble Fina pool finish. Our publication of the information was premature: The product has been introduced only in the metropolitan Phoenix area. A market expansion is in the planning stages and will be announced by the company at a future date.



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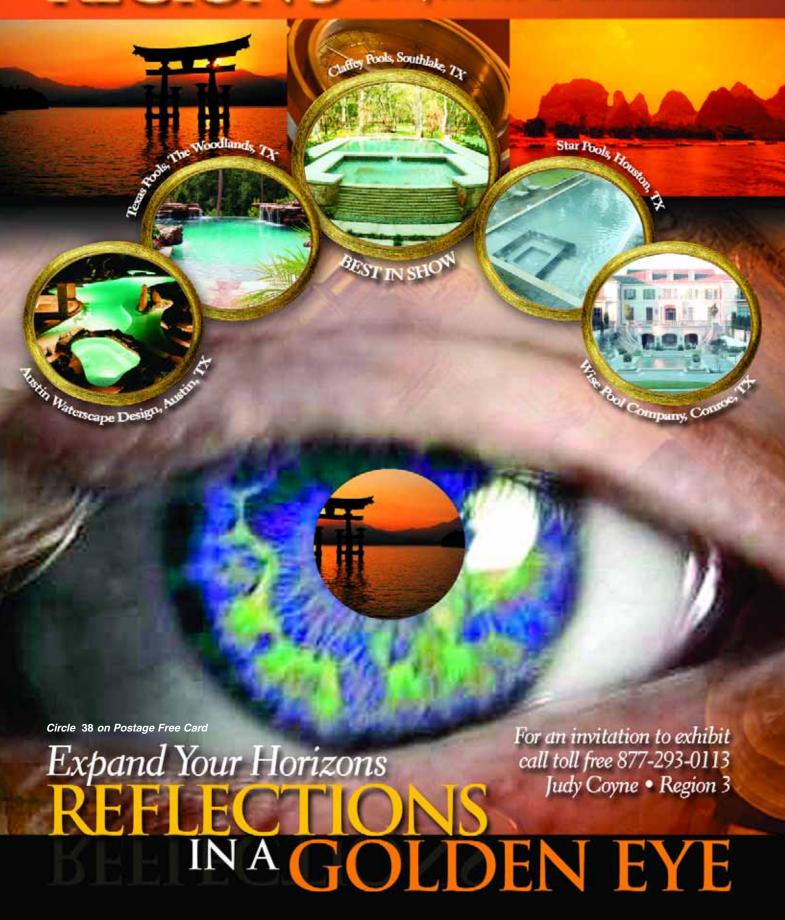
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OF INTEREST

WATER-QUALITY MANAGER

Circle 140 on Reader Service Card



ACU-TROL PROGRAMMABLE CON-TROLLERS has introduced PoolPC Pro, a water-quality-management system for pools and spas. The device, which monitors water quality, determines exact dosing amounts and adds the chemicals automatically, has an easy-to-read control panel that displays exact water conditions and has a visual alarm

indicator. Acu-Trol Programmable Controllers, Auburn, CA.

LIGHTED LAMINAR FOUNTAINS

Circle 141 on Reader Service Card

FIBERSTARS offers lighted laminar-flow fountains for residential applications. The units come with fiber, illuminator, color wheel and fountain for complete system integration and compatibility. Multiple units can be synchronized or run independently, allowing for maximum design flexibility. They also feature a water-scratching device that enhances the light output of the ribbon of water. Fiberstars, Fremont, CA.



POOL/SPA ACCESS SYSTEMS

Circle 142 on Reader Service Card



AQUA CREEK PRODUCTS has published a sixpage, full-color brochure on its line of lift systems designed to ease access to pools and spas. The literature covers deck-mounted and portable versions of the Pro Pool Lift chair system, the Liberty Platform Lift for wheelchairs, hydraulic and battery-powered spa lifts, a variety of sling lifts and accessories including immersible wheelchairs.

Aqua Creek Products, Missoula, MT.

AUTOMATIC POOL CLEANER

Circle 143 on Reader Service Card

HAYWARD POOL PRODUCTS offers the Phantom automatic pool cleaner. Designed to clean pool bottoms, walls and steps, the pressure-side device also rises to skim debris from the water's surface. It has a water-jet propulsion system and moves with-



out wheels to reduce surface wear and also has a wide cleaning path, a large intake capacity, a sweep hose and a big debris bag. Hayward Pool Products, Elizabeth, NJ.

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LIGHTED FLOATING FOUNTAIN

Circle 144 on Reader Service Card



KASCO MARINE has introduced the Model 1400JF, a 1/4-hp, lighted, aerating, floating fountain that features five interchangeable nozzle heads and a new LED lighting system. Designed for small backyard ponds and water-

gardens, the system has a ring of LED lights rated for 100,000 hours and comes with a 50-foot power cord and a control system that includes a photo-electric eye. **Kasco Marine**, Prescott, WI.

SEDIMENTARY SANDSTONE

Circle 145 on Reader Service Card



SILOAM STONE offers sedimentary layered sandstone for stairways, walk-ways, waterfeatures and architectural applications. The stone features excellent weather resistance and minimal water absorption as well as an elegant

appearance and positive traction. It comes in two earth-tone colors (buff and gray) and is available in thicknesses up to 24 inches, widths to 8 feet and lengths to 20 feet. **Siloam Stone**, Canon City, CO.

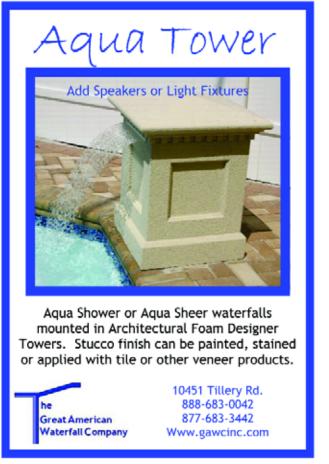


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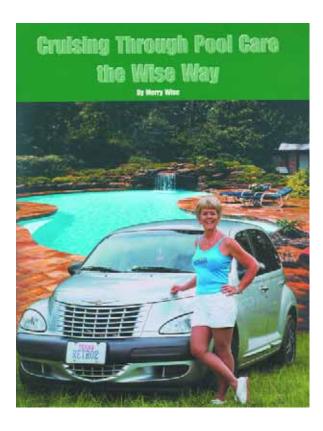


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WaterShapes · June 2005 73

By Mike Farley

Minding Maintenance



n my work as a landscape architect and designer/builder of mostly residential swimming pools, I concede that I've never really given much thought to the subject of maintenance.

Sure, the watershapes I've designed have proper hydraulic and circulation systems as well as correctly sized filtration systems, the proper number of skimmers and so forth, but beyond that, the specifics of swimming pool care have been beyond my concern. So I've let the terminology of water chemistry, for example, become a foreign language to me, and I've never known much about things like water testing, pH or sanitizer residuals.

Through the years, however, I've come to believe that this is not a situation for a designer/builder in which ignorance is bliss. This is partly because I now work for a firm that runs a retail store with a service department and I interact with those folks on a regular basis; but it's also because more and more of my design/installation clients are asking me questions about water balance, the best type of sanitizer to use or how to use a test kit. Recognizing the gap in my knowledge, I began looking for resources that might help.

It wasn't long before I came across a wonderfully concise publication that has helped me immensely: *Cruising Through Pool Care the Wise Way* by Merry

Wise (Respective Publishing, 2003). Wise, who runs Wise Pools in Conroe, presents a refreshing, commonsense, conversational approach to the subject of pool and spa care that goes a long way toward demystifying and defining the basics of what is actually a fairly complex topic.

The text is broken into sections on spas, chemistry, equipment, filtration, water testing, winterizing and entertaining as it relates to maintenance. The book is just 60 pages long, but it's full of definitions, recommendations and cause-and-effect scenarios that helpfully demonstrate the interdependence of major systems.

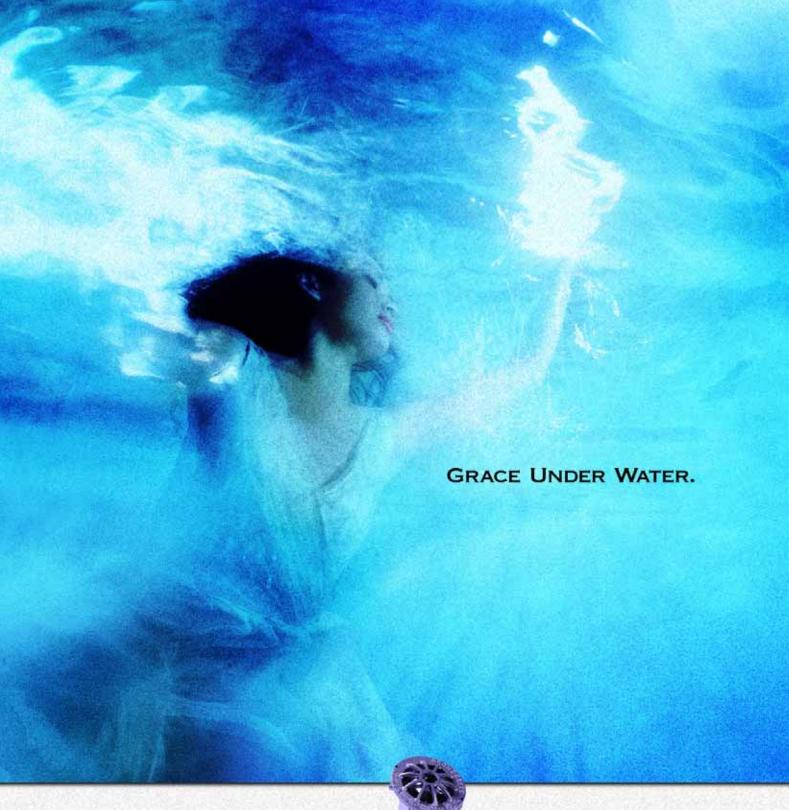
In one of those scenarios, for example, she describes how a dead spot in a pool's circulation pattern can lead to the formation of black algae. This in turn requires the use of an algaecide, which in turn can stain the pool's plaster if, for its part, the water chemistry isn't in proper balance. In that sense, the information not only provides prescriptive advice on how to deal with particular issues, but also reinforces the notion that the decisions we designers and builders make can have a direct effect on the serviceability of a pool down the line.

Given the importance of water chemistry in general pool/spa maintenance, a large portion of the text focuses on subjects such as pH, total alkalinity, calcium hardness, sanitizer residuals and how all of those things must be properly maintained to ensure the proper service life of the equipment while keeping the water (and the watershape) looking good over time.

Having absorbed Wise's perspective on the subject, I now have a good enough sense of the basics that I can address all but the trickiest of my customers' questions about maintenance. I also more fully appreciate that, for those of us who have chosen to remain in the dark on service issues, what we don't know can in some cases lead to problems down the line.

Consider my professional consciousness raised.

Mike Farley is a landscape architect with more than 20 years of experience and is currently a designer/project manager for Gohlke Pools in Denton, Texas. A graduate of Genesis 3's Level I Design School, he holds a degree in landscape architecture from Texas Tech University and has worked as a watershaper in both California and Texas.



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