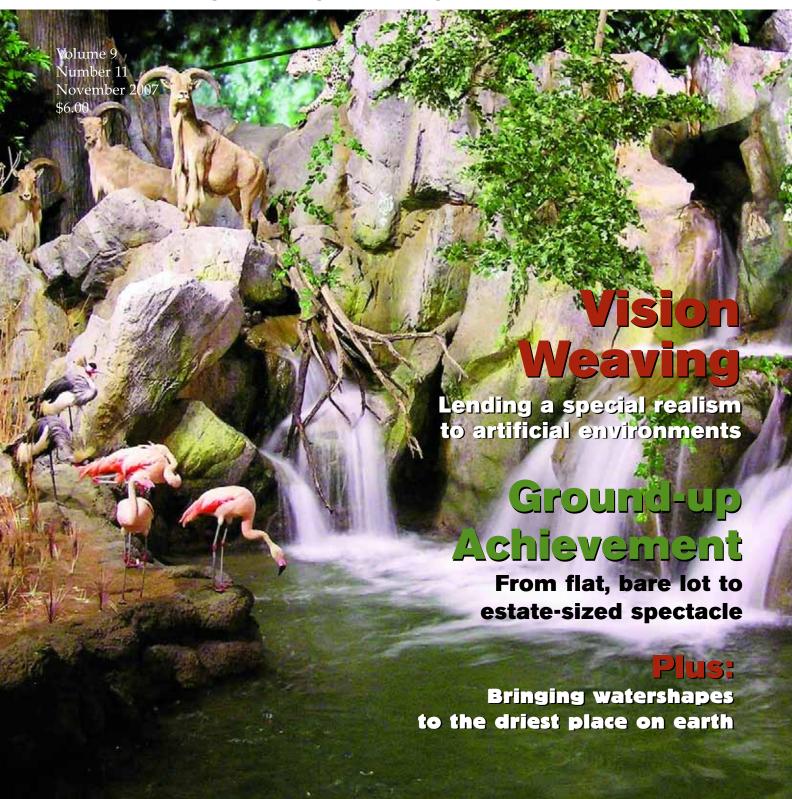
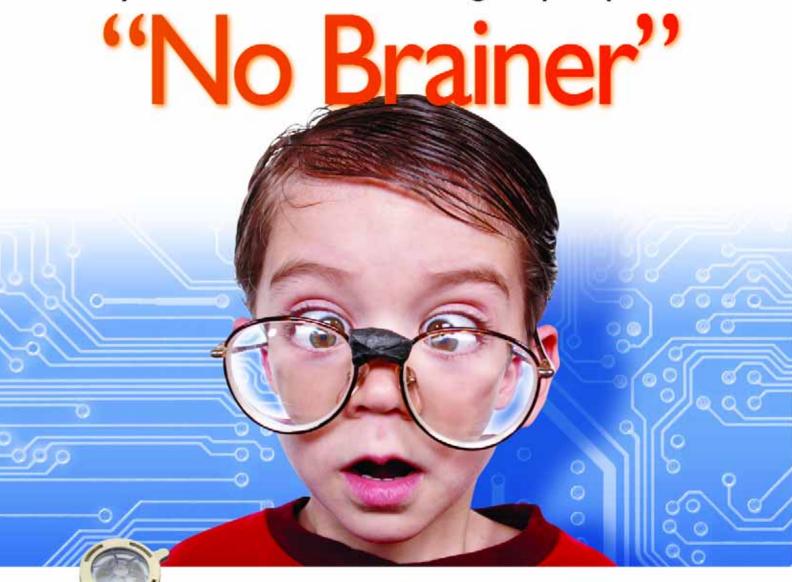
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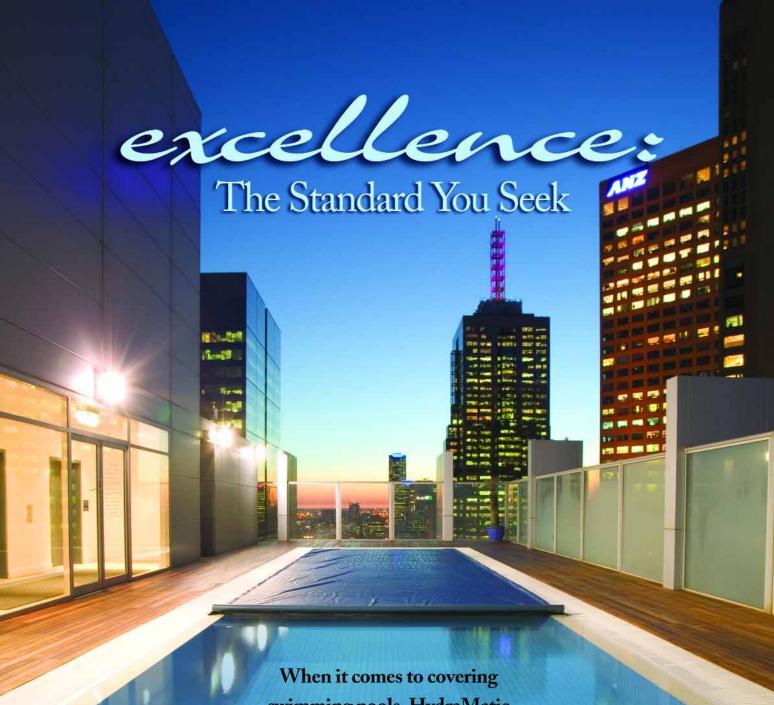
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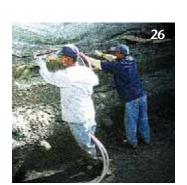


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Photo courtesy The Lakeland Co., Rathdrum, Idaho.

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By Eric Herman

# **Great Company**

If there's one thing about the world of watershaping that never ceases to amaze me, it's the wide spectrum of skills, styles and project types that define the boundaries of what people engaged in this industry do for their clients. Recognizing that breadth and depth is always encouraging (as I've mentioned before in this space), but in today's marketplace it's becoming quite *important* as well.

We all know that housing and the broader economy have hit a rough patch, but rather than wallow in doom and gloom, I think we should revel in how far we've come in the past decade with respect to design creativity, hold our heads high and dig in to do what we do best as never before.

The superheated market of the past few years enabled all sorts of marginal players to thrive as demand always outstripped supply. Simultaneously and much more fortunately, this prosperity also let a generation of watershapers devote themselves to excellence and to developing skills and acquiring education that made it possible for them to bridge the gap between art and commerce. In essence, watershapes have become go-to architectural elements in recent years, and it's my clear sense that the design community won't be able to put the lid back on the box now that it's been opened.

It's easy to celebrate that special pride of place when things are going well economically, but even with market contraction (especially in the residential realm), those who've expanded their skill sets and developed a firm vision of what watershaping is all about have set themselves up to survive (and in many cases *thrive*) because they offer so much more to consumers than they ever did before. Indeed, I see this higher-minded approach to watershaping as a beacon leading us out of the darkness.

This is the sort of market that separates wheat from chaff. The pressure will, without question, naturally select those individuals and businesses that have gravitated toward quality and excellence and simultaneously marginalize those who only pay them lip service or, worse, ignore them completely. Now more than ever, people in this industry need to have an even greater interest in the ideals encompassed in education, self-examination, professionalism and the pursuit of excellence.

We at *WaterShapes* are caught up in all this ourselves. There's no room now for any lack of vision, because it's a time when the gap between mediocrity and excellence may become a chasm. On one side with us will be those who are bold when it comes to vision, design vocabulary and creativity: These are the ones who will advance despite temporary tumult in the economy at large.

When the crisis has passed – as all such crises do – those left standing will be the ones who have kept their eyes on the hallmarks that made them successful in the first place. At *WaterShapes*, we will continue to do our part by championing those ideals and shining bright light on the elements of watershaping that make it so worthwhile, exciting and enduring.

Sui Hemm

The race, as always, goes to the swift – or, in this case, the *smart*.

# WATER SHAPES

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### **letters**

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#### **Dear Editor:**

I'm glad that I, too, am attracted to "Life's Absurdities" (Aqua Culture, August 2007, page 10). After paging through the August issue of *WaterShapes* and reading Brian Van Bower's column with that title, I found myself nodding in affirmation through most of his points.

I don't agree with the position, however, that it is acceptable to plumb a public spa and pool on the same system. The Centers for Disease Control (CDC) has published data showing that pools and spas have different treatment requirements based on their different risk profiles, but this may be a topic for another day's discussion.

What really caught my eye was a passage at the end of the column: I first gasped and then sighed when I read his challenge to the National Swimming Pool Foundation to "take up the cause and create some sort of task force to engage health departments in meaningful dialogue and negotiations rooted in good technical information."

I gasped because, although I'm a regular reader of *WaterShapes* and a fan of Brian's articles, I might easily have missed this comment in a casual reading of the column and, as a result, NSPF might have completely been unaware of this compelling and credible challenge. (For future reference, in addition to putting your words in print in *WaterShapes*, if you see a need that NSPF should fill please contact me directly. I can assure that we are responsive to our customers, just as you teach us to be.)

I sighed because, as I completed reading the editorial, I was relieved to know that NSPF has already initiated a program such as the one Brian suggests to create a task force to bring consistency, intelligence, good science and minimal absurdity to codes. In late 2006, NSPF funded a grant with CDC to create a "model pool code" based on good scientific principles. (I must admit that minimizing absurdity was not explicit-

ly written into the program description, but I think that's part of the gist of what we all want to achieve.)

Since then, CDC has been organizing its efforts and has created a Steering Committee for this code-development process. To find out more, please visit <a href="http://www.cdc.gov/healthyswimming/model\_code.htm">http://www.cdc.gov/healthyswimming/model\_code.htm</a>.

Now the challenge goes back to you and the readers of *WaterShapes*: Please help ensure that the Steering Committee includes appropriate talent on its technical committees by going to the CDC site and becoming involved in shaping the future with less absurdity and more common sense.

### Thomas M. Lachocki

National Swimming Pool Foundation Colorado Springs, Colo.

**Brian Van Bower replies:** Thanks for the letter. I appreciate your comments.

For the record, I didn't advocate plumbing commercial pools and spas together. The column refers to a residential swimming pool in the Cayman Islands to which a hybrid residential/commercial code had been applied. I agree with you about separating commercial pools and spas.

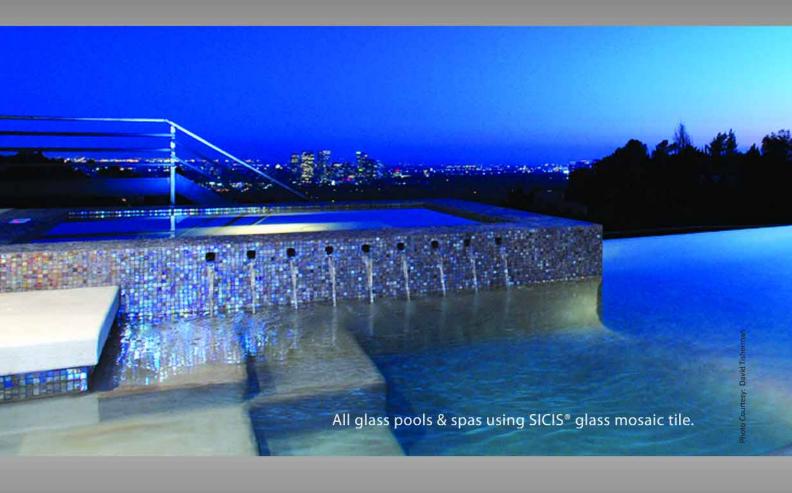
As to your returned challenge, I am ready to volunteer and get involved on the NSPF task force, but I would rather surrender my chair to those who do a more substantial number of commercial projects and thus have more to contribute.

Unfortunately, some of those highly qualified people seem perfectly content with the status quo. Let's see if this exchange scours up a few *WaterShapes* readers who have a greater interest and investment in the subject matter.

And believe me, I appreciate all you are accomplishing with NSPF. If you weren't getting anything done, I wouldn't have thought of you as the best choice to take up the mission!

Thanks for reading and commenting.

# glass, color, water





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### **November's Writers**

**Bill Goddard** is owner and founder of GCS, a design/build firm based in Woodbridge, Calif. Established in 2000, the small, full-service company tackles just one or two residential landscaping/watershaping projects at a time, always for ultra-high-end clients. Before starting his company, Goddard spent 25 years as a sales and marketing executive in the printing-technology industry. He had earned his general contractor's license in 1983, always anticipating a move into the construction industry; he concedes that he did not figure it would take him nearly 18 years to make the transition. Before pursuing his disparate careers, he

studied business administration at California State University at Humboldt.

**Donovan Brown** is design manager for Holdenwater, a watershape design and engineering firm based in Fullerton, Calif. He has been with the company for more than three years, focusing on detailed engineering plans, specifications and presentations. Before joining Holdenwater, he pursued a broad range of career interests – everything from stints as a professional bullfighter and a role on the ground crew of a blimp company to work in creating special effects models and costumes



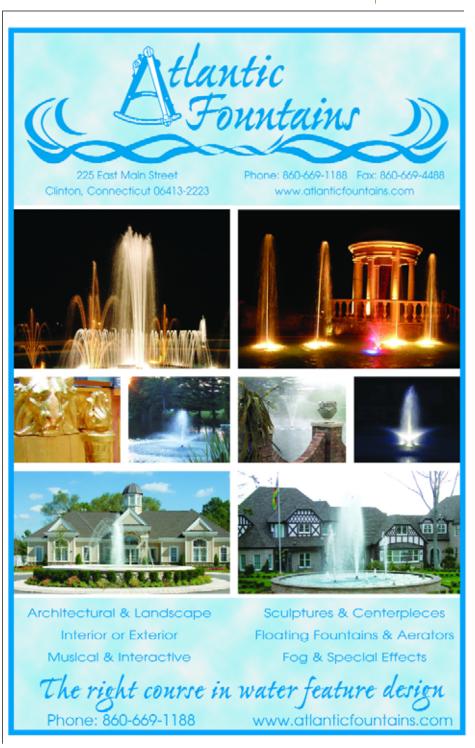
for movies and television and even gigs as a professional ukulele player.

**David Long** is president and founder of The Lakeland Company, a Rathdrum, Idaho-based firm specializing in highly detailed, elaborately themed exhibits and constructions. He established the company 13 years ago to provide nationwide design and construction services to zoos, museums, resorts, upscale residences, civic centers, parks and a host of other properties seeking elaborate artificial rock structures, zoological dioramas and historical exhibits. Long began his career in the display business at his father's side and has been associated with that sort of work in varying capacities since he was nine years old. He also spent time riding Brahma bulls as a professional rodeo rider and worked selling penand-ink paintings applied to leather.

Michael Denman is director of overseas operations for Crystal Fountains, a design and manufacturing firm based in Toronto. He's been involved with watershape components and designs for more than 20 years, joining Crystal Fountains in 1995 as its United Kingdom-based director of European operations. He was promoted to his current position in 1998, relocating to Toronto in 2002. He currently manages an international network of local partners, attends key industry conferences and runs fountain projects in Europe, the Middle East, South Africa and the Far East. Before joining Crystal Fountains, Denman was general manager for Aqua Line Concept, a Parisbased firm that involved him in major projects for Disneyland Paris as well as the Moroccan Pavilion at Seville's Expo '92. He also spent two years in Paris at Jetdil, a distributor specializing in waterfeature components. While there, he was engaged in the development of various systems for Parc André Citroen and the Astérix theme park.



Denman



By Brian Van Bower

## Friends Indeed



've always believed that one of the keys to happiness is enjoying what you do for a living and savoring each day in one way or another.

Yes, we all want to make good money and have the sense that we've risen to a place of status and respect within our profession and, yes, we all know that meaningful work provides many different types of rewards, but for me, the greatest of these accrue to those who don't simply work to live, but instead live to work.

When I get up in the morning and assume my role as a watershape designer, I invariably greet each day and its tasks with joy. And it's not simply that I love this business (which I do); more important, it's that I genuinely, honestly appreciate my associations with the many people I know as a result of what I do for a living.

More than money and success, to me the essence of feeling good about what I do boils down to the most basic of all human experiences – in a word, *friendship*.

### the beautiful circle

I consider myself lucky in that I have lots of friends – so many that I'd be hard pressed to count them all. And I consider myself even luckier that the

It's not simply that I love this business; more important, it's that I genuinely, honestly appreciate my associations with the many people I know as a result of what I do for a living.

lines between friends and work associates have become almost completely blurred: Indeed, the conversations I have on a daily basis move so fluidly between work and personal interaction that I don't even think about the distinction anymore.

What this means is that, most days, I laugh a lot, share all sorts of personal information and observations and often make plans for the next time I'll speak with someone or make plans to get together. And through it all, a whole lot of work gets done.

As an example, let me discuss my relationship with David Tisherman. If you've been reading this magazine for any time at all, it's likely that you're familiar with his unique and occasionally confrontational style of communicating. And it's true: He can be a difficult guy to work with sometimes – extremely outspoken and never one to hesitate to say exactly what's on his mind.

The thing about David is that he's such a powerful personality that people really care what he thinks about them, which is why, for example, I've seen so many students in seminars brought to the verge of tears by his criticism – or even by passing comments on their class projects or assignments. He's direct, but always honest.

Yet if you ask anyone who's really gotten to know David, they'll tell you that behind the gruff exterior, he's one of the warmest, most generous people on the planet. While he might rip you to shreds the first time he meets you, he might spend the next several years helping you in any way he can.

I say this about David by way of making an important point: When your work associates are also your friends, they can become invaluable resources. Speaking for myself, there are so many different ways David has helped me through the

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### aqua culture

Yes, we all have friends who have nothing to do with our working lives, but there's something powerful to be said for having strong relationships with those with whom we share professional interests.

years that I couldn't begin to list them.

Another friend of that caliber is Paolo Benedetti, someone whose name should be familiar to readers of *WaterShapes*. Just before I sat down to work on this column, in fact, I was on the phone with him discussing a detail we're both using — a type of drain cover that can be surfaced with tile so it blends with the rest of a tiled pool bottom without creating a visual disruption. It's a wonderful custom detail.

I'm consulting with a supplier about making off-the-shelf versions of these drain covers. In talking with Paolo about it, he offered to send me a plan drawing I could use to convey precisely what the product would need to do – and did so without hesitation or expectation because he thought it was a good idea. That's the kind of man he is, and I feel lucky to have him as a friend.

### a gathering place

I could go on and enumerate scores of other examples from my network of contacts, but you get the point: These people make my work a profound source of enjoyment and satisfaction, and I reciprocate in every way I can because that's what it's all about. We all support one another because we know that by cooperating and collaborating, we stand to improve what we do at the same time we transform our workdays from drudgery to big-time fun.

And that sort of opportunity is available to everyone willing to open themselves to the experience.

Indeed, one of the reasons the Genesis





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### aqua culture

3 program has been so successful is that, from the start, my partners and I set out deliberately to create environments in which program attendees who get into the spirit of the occasion can relax, have fun, eat good food, drink good wine and enjoy being in nice places while getting to know dozens of keenly motivated watershapers from all over the country.

Personally, I'm gratified to know that it works, simply because these schools are both an expression and extension of my personal philosophy as well as that of my Genesis 3 partners.

Time and time again, the comment I hear from participants is that while they appreciate the professional information and contacts they make, what really hooks

them is the camaraderie that develops in the course of a multi-day class. With a full decade of staging these programs behind us, my partners and I have the satisfaction of knowing we've shaped a substantial collection of people – some of whom now travel together, collaborate on projects and, in essence, see themselves as part of an extended family of professionals with common needs and interests.

Yes, we all have friends who have nothing to do with our working lives, but there's something powerful to be said for having strong relationships with those with whom we share professional interests. It's a common ground, a bond that lets us share information, help one another, talk each other through professional (and sometimes personal) challenges and, yes, network in ways that bring work to all our companies.

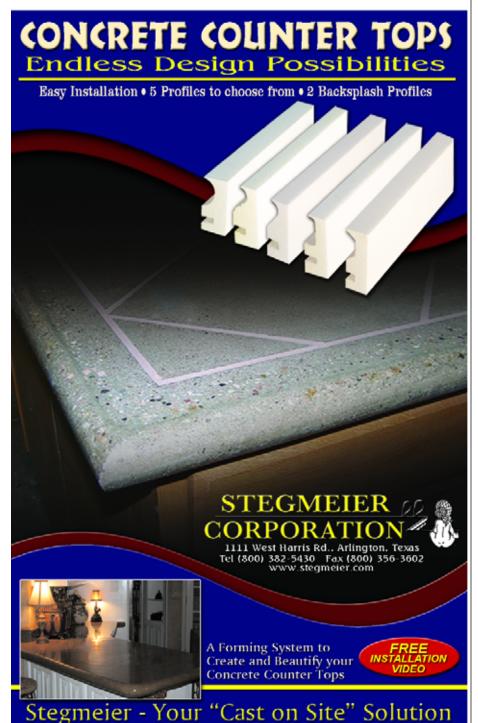
Moreover, this alliance of like-minded souls has entirely changed my attitude about trade shows. Where at one time showing up was like visiting the dentist to address a bad toothache, I now get a real kick out of showing up — especially for the past four years in which Genesis 3 has had a working partnership with the Aqua Show. We stage lots of seminars and education programs there (which is important), but what's more amazing is the ongoing celebration in our booth.

The energy we all feel in that environment is infectious: Every year, more and more people show up, carrying plans, using their laptops to share their work and exchanging ideas with old friends while we all eat good food and sip good wine.

### into the flow

It's great fun to be part of that scene, and I know I speak for my partners, David Tisherman and Skip Phillips, in declaring that we never tire of hearing the laughter in our booth and seeing the big smiles on people's faces. Yes, we're all there to forward our careers, but there's no denying that our lives become richer in other ways through these experiences.

(The issue of *WaterShapes* you hold in your hands is, in fact, the one that will be distributed at this year's Aqua Show. If you're in Las Vegas for the happy duration of the event, please don't hesitate to come over to our booth and



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join in the fun.)

Maybe through visiting with us you'll want to become part of Genesis 3, maybe not; either way, I'm certain that if you spend time with this wonderful group of people, you'll come away with at least a couple of new friends. That's just the way it is, and it would take a truly grumpy person to be immune to the good feelings that flow in every direction.

I could go on in this vein for pages, but I'll wrap things up here with a few words about a good business relationship that has been transformed through the years into a great personal friendship. I've mentioned Bill Kent several times in this column, typically to mention my admiration of his accomplishments as a businessperson – but he's also a great guy, a boon companion and someone I've been privileged to call a friend for many, many years.

Bill runs the Horner group of companies, but more relevant to this discussion, he and I spend a good deal of time together away from work, sailing around the Florida Keys. Spending time away from work with a professional colleague in this way has enabled both of us to see sides of our personalities that we'd simply never witness in a purely professional context.

Bill is a radically successful man and is extremely serious about his work, but if you get him away from all that out on the water, he's capable of being quite silly. He's not an expert sailor (in fact, he refers to himself as "worst mate" when he's aboard), but that doesn't matter. We spend our days talking about life, love, world events, books and a host of subjects in a way that reminds me that as we move through this world, none of us is alone.

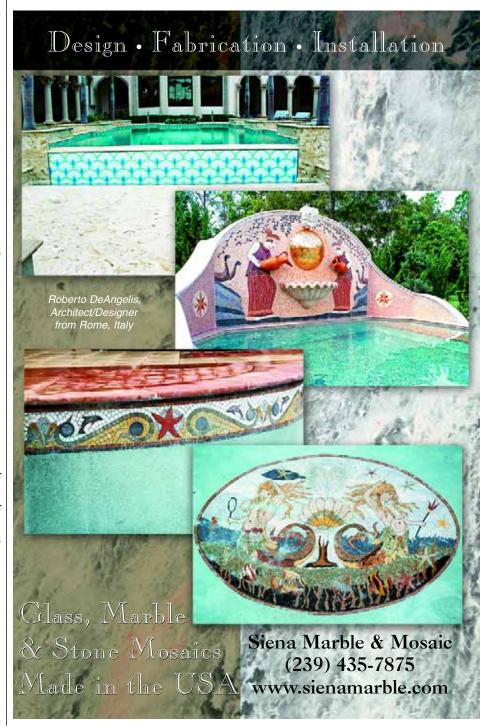
WaterShapes publisher Jim McCloskey is another of my sailing buddies and makes what have become annual trips from Los Angeles to Miami to get out on the water, shed daily cares and have what often proves to be a ridiculous amount of fun.

If you ask me, people like Jim, Bill, Skip, Paolo and David are much more than people I know through work: They're part of my life and because of them and many, many others I haven't mentioned

here, I feel like a rich man. They make my daily life easier and more fulfilling, and they're also my good friends — and I wouldn't trade either side of those relationships for anything in the world.

If you've tied into the greater community represented by the watershaping world, that's great. If you haven't, there's no better time to get started than right away.

**Brian Van Bower** runs Aquatic Consultants, a design firm based in Miami, Fla., and is a co-founder of the Genesis 3 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 byanbower@aol.com.



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By Bruce Zaretsky

# **Making Light**



hose of us who are designers and builders of full-scale outdoor environments (you know who you are) face a distinct challenge: In our work for our clients, we are expected to provide the outline and details for a huge range of project elements, from watershapes and patios to plantings and walkways and more.

That list, at least so far as clients are concerned, also includes appropriate lighting, but that is not always something on which we focus. Indeed, lighting design is seen as a specialty even by those who tackle almost every other project feature – and there's no problem with that unless it inclines you to make lighting an afterthought.

As I see the grand scheme of things, lighting is an increasingly important component in overall exterior environments. Many of our clients these days have their disposable income because they are two-income families who work long hours to earn their keep. At times, it seems as though they're throwing cash away by investing in exterior design, basically because they aren't home during the day to reap the benefits.

That's where landscape lighting comes in: With good lighting design, our clients can enjoy their yards well after dark in settings that can be quite magical. To facilitate that benefit, we all need to be engaged in lighting design on some level, however rudimentary it may be.

I think lighting is far more essential than most clients and designers know and believe it should be considered and planned for from a project's inception.

### last to first

Quite often, consideration of landscape lighting happens only at the end of a project – so it's often the first plan component that gets cut out when budget concerns arise.

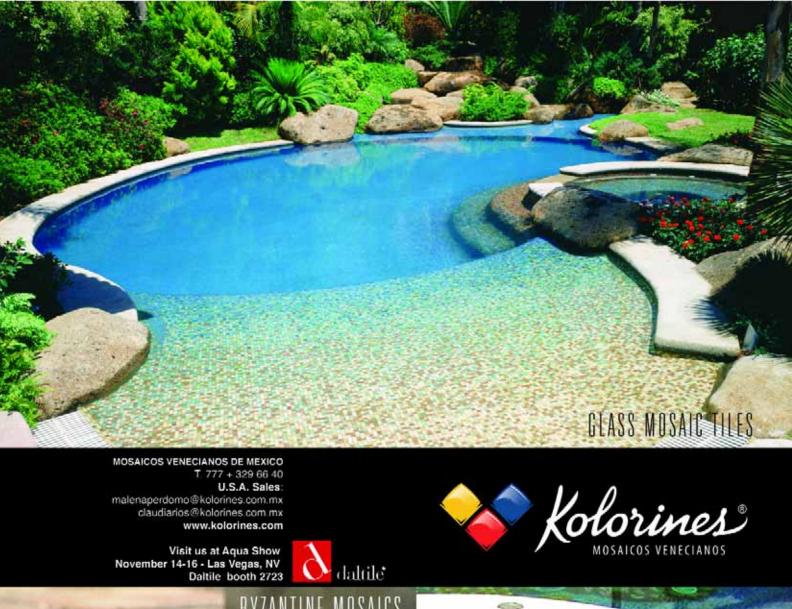
I would argue that both those conventions are wrong – that is, lighting should never be an afterthought and should never be one of the details deleted from the punch list. I say so because I think lighting is far more essential than most clients and designers know and believe it should be considered and planned for from a project's inception.

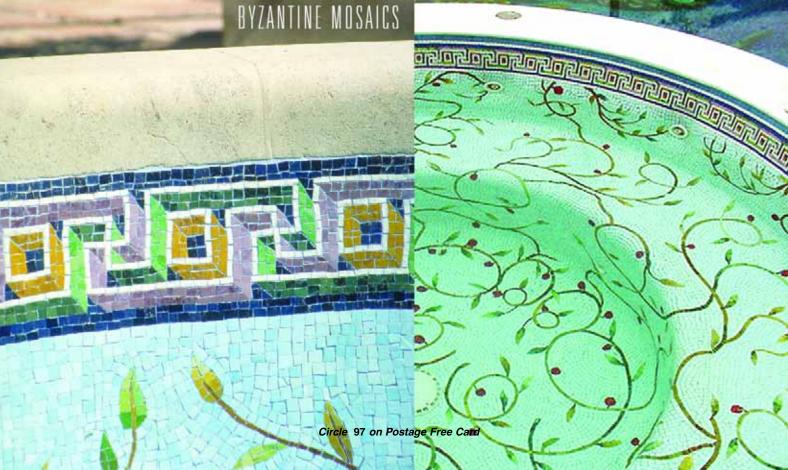
Yes, lighting can be *installed* at the end (and usually is, for all sorts of seemingly practical reasons), but it's very important to have a plan of attack almost from the beginning so you can run wires below hardscape and place transformers sensibly.

And yes, lighting is a specialty often best left to the experts, but it's always been my belief that more of us should get involved – basically because so many of our projects are budget-driven and paying for such expertise at the end of a project is often a stretch even for clients with good intentions. My thought is that night-time enjoyment of the spaces we design and build is too important a factor in clients' long-term satisfaction and that to walk away without having addressed lighting on some level is just plain wrong.

For grand projects, bringing in specialized lighting designers can make sense and the results can be spectacular. On a practical level, however, if the choice is between spectacle and darkness, I personally want to find a middle ground that lets me serve my clients in appropriate ways.

In approaching these tasks through the years, I've become pretty well versed in what it takes to create a spectacular lighting design and now





### on the level

work with three basic solutions to the lighting challenge.

First, there's mood or effect lighting, which is meant to make various components of landscapes look good after dark – by uplighting a tree to show off the beauty of its branch structure, for example. Second, there's lighting to indicate elevation changes – as with steps or slopes

- and mark entrances to walkways or define the edges of watershapes. Third, there's lighting for safety, as by highlighting the edges of sweeping driveways or eliminating reasons to fear dark places.

(As a rule, I don't design lighting for security reasons. If there are reasons to worry about security, we recommend motion sensors and larger lights – or a big dog! –

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to deal with the possibility of intruders.)

In some cases, these functions overlap, as when uplighting reflected from the bottom of branches and leaves (or downlighting out of trees and other overhead structures) serves to illuminate a pathway. Indeed, in most cases lighting takes all three of these functions into account simultaneously – although it's safe to say that most of the visual drama comes from deliberate effect lighting.

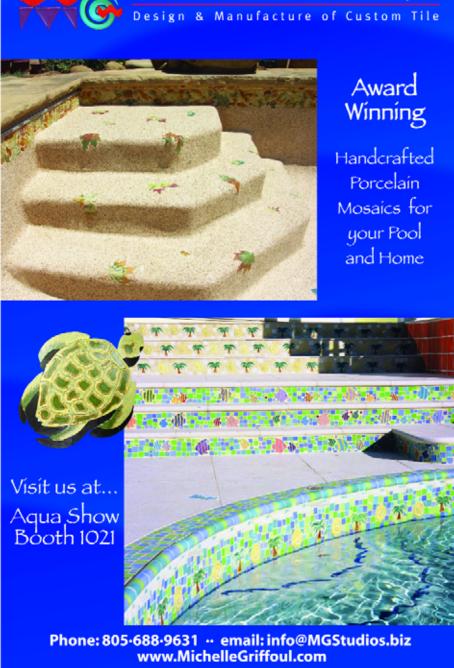
### delivering value

As I see it, working with these functions even in basic terms is better than not providing any lighting at all. And as I've worked with these systems, I've come to feel more and more confident that I'm delivering real value that completes the package of services I offer my clients.

In some cases, I set up systems that imitate natural lighting, in effect bringing day to night. Here, I focus on two forms of lighting not mentioned above – that is, downlighting and backlighting.

With downlighting, I picture what a site looks like under a full moon, placing fixtures high up in trees to create subtle, shifting shadows on the ground and structures below. With backlighting, I picture a tree on the horizon with the sun setting behind it, creating a vivid silhouette against a bright background.

For other projects, however, my goal is not to mimic nature, but instead to provide



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a whole new nighttime landscape. In this realm, you can take daytime's five-foot-tall shrub and turn it into a tree by uplighting its shadow onto a tall, blank wall. Using this technique, you can take a piece of sculpture that's basically hidden during the day and turn it into an evening focal point.

Similarly dramatic effects can be achieved by uplighting trees with interesting structures, such as Japanese Maples or Dogwoods. I've also shone spotlights across waterfalls to shadow the moving water on adjacent stonework. At the same time, I avoid uplighting waterfalls at all costs: This creates a "hot spot" on the water's surface that detracts from the effect of lighting the falling water.

And again, there's the possibility of combining approaches within single designs, mimicking nature while setting up special highlights. Personally, I lean more towards the latter than the former, but I still find myself climbing up to the tops of trees to place fixtures and set up moonlighting effects. (Actually, the moonlighting touch is almost irresistible where I live and work: When there's snow on the ground, the appeal of light shining down through bare branches to cast rippling shadows across vast blankets of snow is impossible to ignore!)

So what do you need to know to start shaping light in the same way you do water and hardscape and landscape materials? For purposes of this discussion, let's

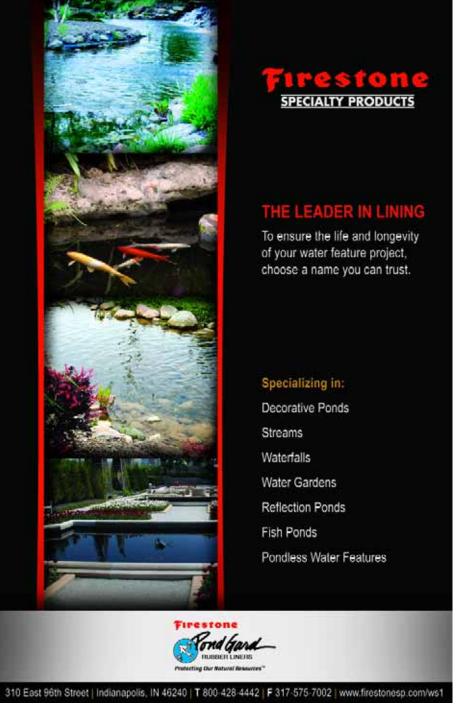
My frequent goal in establishing exterior lighting programs for my clients is to give their surrounding a different look after dark. In this case, for example, a short daytime shrub casts a larger-than-life nighttime shadow on an adjacent wall.

focus strictly on low-voltage lighting systems, which have come to dominate what I do because they are reliable, economical especially with respect to energy costs and well within the realm of most landscape installers' capabilities. (Perhaps as important, where I work these installations do not require working with a licensed electrician.)

### getting practical

For the most part, the low-voltage fixtures I work with fall into three categories: path lights, spotlights and specialty lights.

**Path lights** are used, as the name implies, to illuminate walkways and paths. In most cases, these fixtures are outfitted with simple bayonet-style or





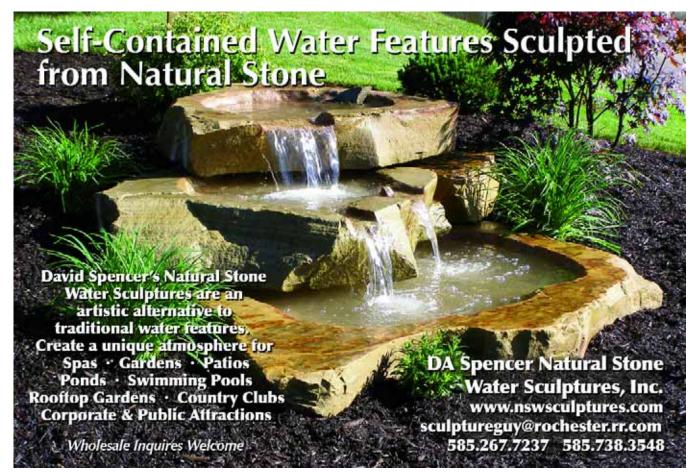
### on the level



This statue is quite fine by day, but with a thoughtful bit of uplighting against a background we deliberately left dark, it becomes the star of the show when the sun goes down.



Exterior lighting often serves multiple purposes. Here, for example, the railing lights play up nice architectural details in a purely decorative function while also allowing for safe, secure passage between the house and yard.



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wedge bases for easy placement, and I use them to lend texture and interest. (In doing so, I always avoid lining fixtures up in the dreaded "runway effect" – unless, of course it appeals to my client. Like the awful "string of pearls" effect too often seen with stonework around watershapes, this is almost always a look to be avoided.)

- ▶ Spotlights are quite versatile and can be used for virtually any lighting purpose, whether it's uplighting, downlighting, backlighting or highlighting. Generally speaking, these fall under the heading of effect lighting, but as mentioned previously, fixtures up in trees can serve a secondary function by lighting a path or seating area below.
- ▶ Specialty lights are really just variations on path and spotlights, but they're meant for mounting in specific places for specific purposes as with fixtures intended exclusively for mounting in steps or on walls, where they typically serve as path lighting. There are also special fixtures to be mounted under deck railings (these show off the railing's details while casting light on shrubs or planters below), in strips (as with holiday lighting) or under the water.

There is, of course, plenty of blurring of functional boundaries among these basic types – spotlights to light pathways, path lights to highlight sculptures, rail or step lights to cast light on sculptures or mark paths. Getting to know these fixture types and how they're used is a straightforward matter of working with them for a while – a learning curve I would *not* suggest inflicting on your clients. In many cases, your own backyard is the best experimental ground: Pick up some fixtures and be diligent in figuring out those situations in which they work best.

Finally, I never rest with what I've seen or what I think I know. To this day – after more than 20 years of installing landscape lighting systems – I still move fixtures around in my backyard on at least a monthly basis, just to see what effects might show up.

My point is, every client who asks you

to do a full-scale exterior design will expect lighting to be part of the package. If the budget isn't large enough to hire a lighting-design specialist or if there's a chance that a project will be completed without any lighting at all, I see it as our responsibility to do what we can to ensure nighttime enjoyment of our work.

### being ready

When you really get into lighting (as I have), you'll find yourself thinking about the finer points of lighting selection, including lamp types, the angles at which they cast their light and the odd details of color temperature and how light makes objects it shines on appear to the human eye – but that's a subject





In certain settings, decorative illumination becomes a wonderfully playful design tool, creating festivals of light that welcome homeowners and their guests to spaces that have entirely different daytime appearances.

for a different column.

As I see it, the key to making things work, no matter who designs or installs the system or when, is anticipating the need from the start of a project, making some early judgments about where lighting connections are likely to be needed, and then placing sleeves and conduits where they'll be most advantageous.

That's the real problem with treating landscape lighting as an afterthought: Nothing bothers me more than the thought of all the cutting of flatwork, digging up of flowerbeds and awkward accommodation of wires and transformers that goes on every day because lighting isn't on the agenda from the outset.

To use an analogy that should make sense to watershapers everywhere, it's a bit like forgetting about the need to put a light in a pool or fountain until after all the finish work has been done. The thought of going back in, digging from the equipment pad and core-drilling the shell to accommodate a lighting niche

would be more than enough to incline anyone involved to leave that watershape in perfect darkness.

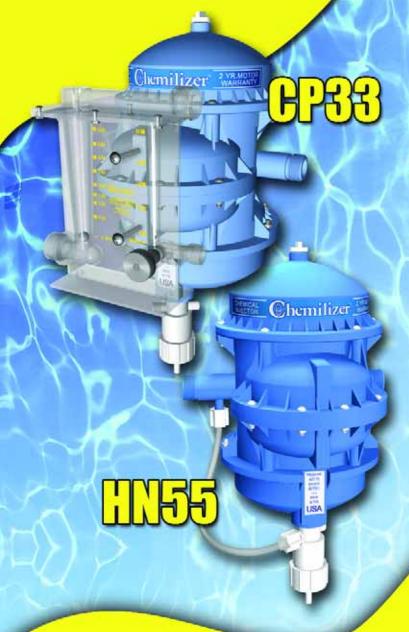
All it takes is simple accommodation of a lighting system's needs at the planning stage to make watershape lighting a relative breeze, and I would argue that the same is true with landscape lighting whether it's installed first, last or even some years after other work has been completed.

The readiness is all.

**Bruce Zaretsky** is president of Zaretsky & Associates, Inc. a landscape design/construction/consultation company in Rochester, N.Y. Nationally recognized for creative and inspiring residential landscapes, Bruce also works with healthcare facilities, nursing homes, hospitals and local municipalities in conceiving and installing healing and meditation gardens – and labyrinths, too. You can reach him at bruce@zaretskyassociates.com.



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### tisherman: detail 82

**By David Tisherman** 

# Set in Concrete

n the parlance of those who know best, it's time to discuss "mud" – the concrete material out of which most watershape shells are made.

Mud enters the scene after the steel, plumbing, electrical conduits and forms have been placed and, in some jurisdictions, all work to that point has passed careful inspection. The concrete itself can take any of four forms: concrete block or poured-in-place concrete (neither of which is used very often), or gunite or shotcrete (far more commonly used).

In my three decades of building watershapes, I've worked with all of these materials. If a very specific set of circumstances calls for the use of either concrete blocks or poured-in-place concrete, I will do so, but whenever there's a choice I will *always* choose to work with shotcrete. Before I get to the reasoning behind this preference, however, let's roll through all of the possibilities and how they are most effectively used in watershape construction.

For the vast majority of watershapes, gunite and shotcrete are the materials of choice and are so familiar that the distinctions between them might be taken for granted.

### material options

I suspect you could probably pass through an entire career in watershaping without reaching beyond gunite or shotcrete, which are certainly the most common materials used in watershape shells. But in certain situations on certain sites, there's a possibility you'll be required to use of one of the two other material possibilities.

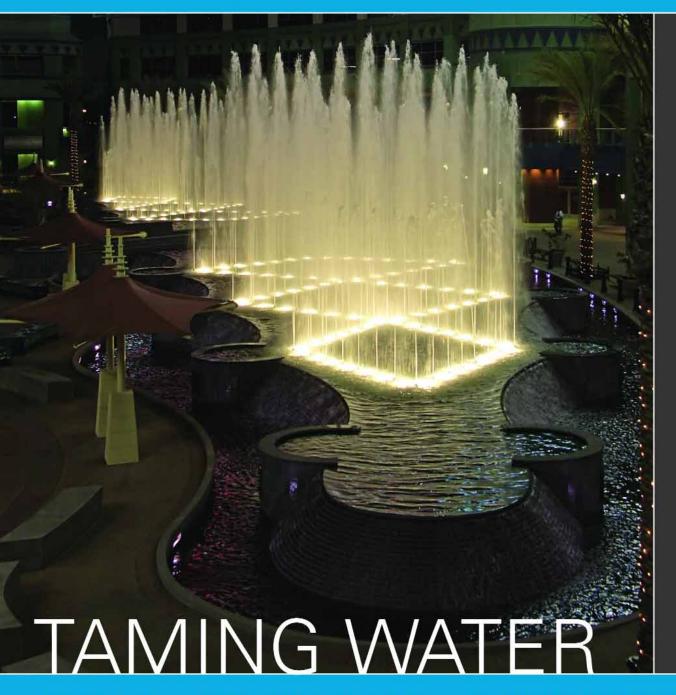
▶ Concrete blocks (also widely known as concrete masonry units or CMUs) can be used to great effect in creating shells to exacting dimensions. When installed properly using a properly engineered structural plan, they are indeed every bit as reliable as any of the other options.

The drawback with CMUs is that installation is extremely labor intensive – especially when tolerance must be held to a hair's breadth – and is therefore quite expensive – several times the cost of either shotcrete or gunite. This basic economic consideration makes these blocks a rare choice, but if you're working in a remote or inaccessible area in which other avenues aren't open to you, this method can be your salvation.

Deconstruction using *poured-in-place concrete* is a second option and, up until more than 50 years ago, was the most common material used in building pool shells. Again, if done properly these shells can be built to precise tolerances and with phenomenal levels of concrete strength, but the approach is both extremely expensive and time-consuming.

Builders who work with poured-in-place concrete basically have to possess the same skill sets as the specialists who build structures such as highway bridges, dams and other precisely designed, engineered and formed structures – and they must find clients willing to pay for that so-

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### tisherman: detail 82

phisticated level of construction.

In both of these cases, we're talking about extreme rarity: I've built pools using these materials, but among hundreds of projects completed, I could probably count them on the fingers of one hand.

For the vast majority of watershapes, gunite and shotcrete are the materials of choice and are so familiar that the distinctions between them might be taken for granted. As with so many topics related to watershaping, however, I've found that learning as much as I can about the options has given me an understanding that leads me inevitably in one direction.

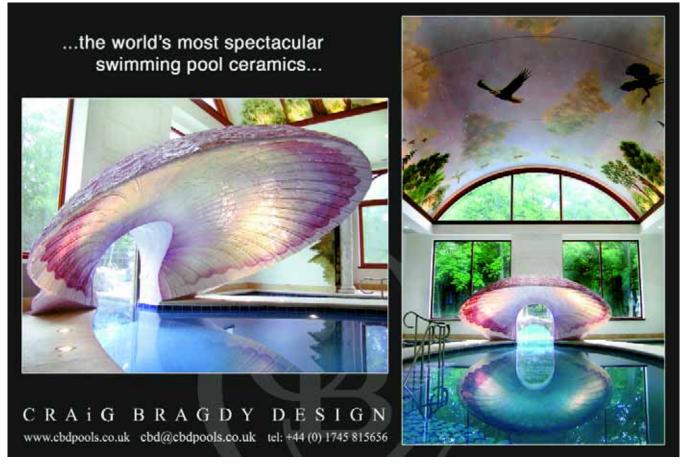
### wet and dry

Basically, both gunite and shotcrete are forms of what is known as *pneumatically-applied concrete* – that is, both materials pass through nozzles under air pressure.

▶ *Gunite*, which is sometimes called "dry mix" or "dry shotcrete," is the product of mixing dry concrete and sand and con-



In their final run-through before the shoot begins, the crew from Valley Shotcrete set up guidelines (Leo at left and Carlos in the middle) and clear away any debris or loose material (Jose at right). We do all we can to simplify their work on site with pre-shoot inspections of our own.



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### tisherman: detail 82

veying that mixture using a compressor to a nozzle. Water is introduced to the mix at the nozzle's orifice, hydrating the material in the process of application.

▶ Shotcrete, which some people call "wet gunite" for reasons I can't quite comprehend, is the product of batch mixing at a concrete plant. The wet material is delivered to the site in mixer trucks and then is shot into place under pressure.

The differences here are fairly obvious: Because shotcrete is mixed at a batch plant, its formulation of cement, sand and water is tightly controlled by weight, which means that the strength of any given batch can be reliably predicted: If you order a 4,000-psi mix (which usually will come up to 4,750 to 5,000 psi if cured properly), that's what you get. Yes, you do need to confirm that the plant has sent the right truck to the site and that it contains the mix designed by the structural engineer and approved by the building department, but that's about it so far as the possibility for human error is concerned.

With every project, I make certain before the shotcrete crew shows up that the steel is installed exactly per plan; that it is supported with dobies to provide adequate clearance; and that everything is wedged tight so the steel won't move when stepped on or when the shotcrete hits it.

Also, with shotcrete you can order any number of admixtures for various special situations – such as for sites with highly acidic soil. You can order color additives as well if the concrete is to be left unfinished for a special application. In both cases, the levels of these additives need to be exact and consistent from batch to batch – points that can easily be handled in the controlled conditions of a mixing plant.

By contrast, gunite is mixed on site – most often by laborers who may or may

not know exactly what they're doing. Consistency is therefore hard to come by: With cement and sand added as the process moves forward, it's a shovel of this and a shovel of that, and the possibility for human error is relatively great. Yes, there are many skilled crews out there, but for critical applications, my inclination is to avoid the risks that come with gunite.

There are also differences in application. With gunite, for example, floors are shot first, then the walls: This allows for



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### power packed

With pneumatically applied concrete, the velocity at which the material is shot at the substrate is of great importance – the faster the better.

Too many crews are equipped with compressors rated at pressures of less than 250 cfm, but the best I know work at 375 cfm because the higher application velocities they allow have the effect of ensuring greater encapsulation around bars – especially when there are double curtains of steel. By contrast, working at lower pressures can result in poor concrete density with greater shadowing and porosity inside the wall that will allow mix water to evaporate or bleed away.

That water factor is critical: Even with high-velocity application, some I know in the business virtually fill their pools with water while it's still in the concrete-only stage, saying it encourages greater density, minimizes porosity, eliminates bleed-out and retains mix water where it belongs.

By contrast, others try to get around these issues by following up lower-velocity application with concrete sealers or waterproofing agents. But what's really happening here is that, no matter what's applied later, the shotcrete or gunite is simply not being applied properly and, as a result, the vessel is less likely to be watertight. As I see it, this is all about people not understanding the full complexity of concrete and how it cures.

Careful preparation for a second shoot – in this case of a vanishing-edge dam wall – is just as important as getting ready for the primary shoot. Here, a high-pressure air gun clears away any debris after we've broken off any concrete that adhered to the steel mat in the first shoot.

- D.T.

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### tisherman: detail 82

easier removal of rebound and overspray, which should always be disposed of without question or exception. As I've reported many times in these pages, however, a disturbing percentage of builders use this trash to build steps and benches – and then wonder why those steps and benches fail.

With shotcrete, by contrast, the issue is much simplified. The walls are shot first, then the floor. Rebound of the sort experienced with gunite isn't much of an issue, basically because all of the material is adequately hydrated.

### biased toward perfection

Based on these factors and my own observations and experience, when it comes to pneumatically-applied concrete, I use shotcrete – and shotcrete *only*.

I am fortunate in my California projects to work with the amazing crews run by Carlos Ramirez out of Valley Shotcrete. What makes them so good? For starters, Ramirez worked as a deputy inspector for

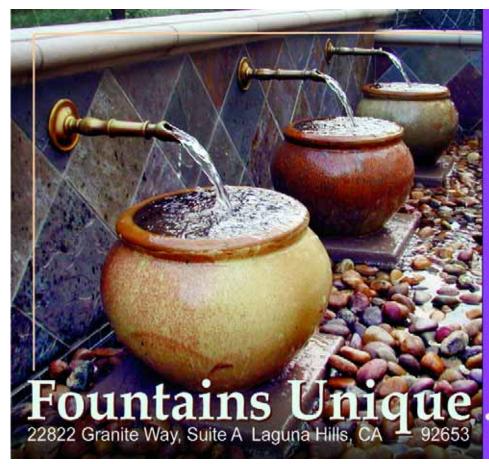
several years: The man knows the ropes and his crews pay incredible, precise attention to the finest details.

Their level of craftsmanship is unmatched in my experience, right down to the wonderfully uniform texture of the concrete throughout – all based on the bonding requirements for the finish materials I'll be using and all done within tight tolerances for all critical dimensions. These people are as professional as they come.

As good as they are, however, a huge part of the success on any shotcrete-application day is what they find when they come on site. I've discussed a number of these issues before (as did deputy inspector Richard Fehring in last month's column), but it all bears repeating here because this stage of the construction process is so critically important.

With every project, I make certain before the shotcrete crew shows up that the steel is installed exactly per plan; that it is supported with dobies to provide ade-





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At this point, everything is ready to go: spacers and dobies are all in place, the steel has been tied to the forms, the plumbing has been secured and we've done all we can to make certain that the concrete-application process will move forward with negligible vibration and we can be assured the steel will be completely encapsulated.



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### tisherman: detail 82

quate clearance; and that everything is wedged tight so the steel won't move when stepped on or when the shotcrete hits it. If there's a double curtain of steel, everything has to be staggered to ensure there's enough room for the nozzle operator to cover each piece of steel adequately.

In those rare instances where, in reviewing plans before work has started, I

see steel that has been specified in a way that won't allow for proper coverage, I go back to the structural engineer and we work out a new detail that takes another approach while continuing to maintain structural integrity. Frankly, this never happens when I work with my usual engineer, Mark Smith (Tarzana, Calif.), but as I see it, there's no more important

quality-assurance step than making certain all steel will receive adequate coverage – and the best time to see to it is before work begins!

I also carefully inspect the plumbing, making certain it has been installed properly and is supported with trim bars to the left and right of every penetration so it won't move as the shotcrete is applied. If we've needed to penetrate a grade beam or bond beam with plumbing, I will only have done so in collaboration with the structural engineer and in such a way that structural integrity is never compromised. (I studiously avoid the common mistake I see of penetrating a beam at the bottom, where it experiences the greatest degree of compression: That move weakens the structure and can become a nightmare down the line.)

Finally, we never run plumbing or steel side-by-side: This can create shadows or voids in the concrete. We also build forms with low tolerances and adjust them just before the shoot, setting up large numbers of guidelines to make sure every elevation is precise.

### curative powers

This final site survey makes everything easier for the shotcrete crew when it shows up on the morning of the shoot. In the case of Valley Shotcrete, for instance, Ramirez and his staff don't have to spend any time running around and correcting problems that the subs before them have left behind. Instead, they all spend their time focused on getting their part of the project done to perfection.

Once they've completed their work and left the job site, we shift our attention to the curing process – the other key to success with concrete shells.

As an aside, the dumbest thing I've ever heard while in the pool industry has to be the time when, during a builders' meeting in Phoenix, I asked everyone seated around the table if they'd had a chance to visit Taliesin West while they were there. Getting no response, I started talking about Frank Lloyd Wright and his importance to modern architecture and design—at which point a prominent builder interrupted me to ask, "Why would you want to study about Frank Lloyd Wright? He's dead."



More relevant here is the *second* dumbest thing, which came up a couple years ago when the owner of a (now-defunct) New Jersey gunite company told me: "Concrete doesn't expand or contract, so you don't need to add water after it's shot."

The guy almost left me speechless. According to every standard or text on concrete I've ever read, you *must* add water to concrete after it's shot so it cures slowly and thereby is able to attain its maximum strength. This is so important that, unlike many builders, I never take the lazy way out and leave this chore to homeowners. There's no excuse for such negligence.

In my projects, we set up soaker hoses around the highest elevations of the shell and on all the steps and benches, letting gravity do some of the work for us and making certain every area of the fresh concrete receives a steady supply of water. The multiple lines are all hooked to an irrigation timer that goes on for 15-minute periods five or six or more times a day, depending on site conditions. When standing water accumulates in the bottom, we just pump it out.

We do so because, in fourteen days, concrete reaches 80 percent of its ultimate strength – and then keeps hardening gradually for the next hundred years or so. The more water it gets during those first critical days, the better. (Yes, there are curing agents that can be added to accelerate the process, but that's another subject – and anyway, these additives aren't normally used in pool construction unless indicated by the structural engineer.)

As the curing occurs, various trades pursue other tasks on site that can be completed without adding any surcharge to the shell. The electrician will, for example, run conduits from the vessel to the equipment pad, irrigations specialists will set up sprinkler systems and lighting designers will install outdoor fixtures and controls.

In some places (including California), we can't do anything more with the shell until it reaches a strength of 3,000 psi – a fact that must be verified in a lab with sample panels. I follow this procedure even in places where it's not required, basically because I want to be assured that my shells are strong enough that I can

proceed without compromising their structural integrity.

It only makes sense: I've never gotten a call about a structural failure, and I don't plan on asking for one now – or years from now – by cutting any corners on site.

Next, we'll begin a multi-part discussion of finish materials.

**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 the Genesis 3 Design Group, which offers education aimed at top-of-the-line performance in aquatic design and construction. He can be reached via e-mail at david@tisherman.com.



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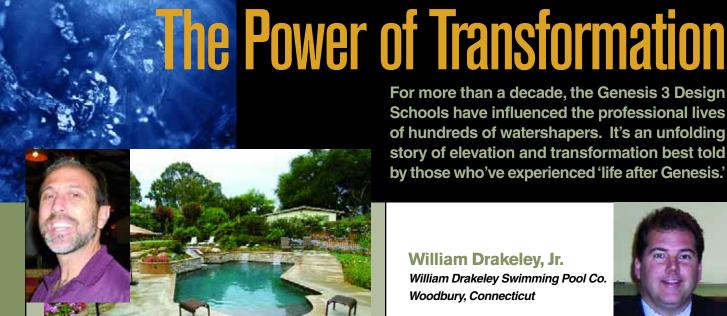
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### **Shawn Burch** STB Landscape Architects Redlands, California

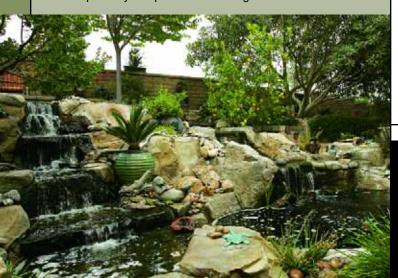
"Genesis changed my life.

"As someone who studied landscape architecture, I've seen nothing anywhere else that teaches anyone how to design watershapes - it just didn't exist until Genesis came along and filled the gap with educational programs unequaled in this industry.

"After going through their programs, I'm inspired to learn more and I'm anxious to travel the world to study and absorb design traditions and develop and extend my own design vocabulary. I want to be a more creative designer, and even after more than 30 years of practicing landscape architecture, it feels like my career as a watershape designer is just beginning.

"I've been through the entire program and am now a graduate of the Genesis 3 Design Group's Professional Watershape Design programs. Every step of the way, I saw what I was doing as an investment in myself and my skills, and as I see it, I've been paid back many times both personally and professionally.

"The program has taken me to a much higher level and has let me explore my true potential. It's that good!"



For more than a decade, the Genesis 3 Design Schools have influenced the professional lives of hundreds of watershapers. It's an unfolding story of elevation and transformation best told by those who've experienced 'life after Genesis.'

William Drakelev. Jr. William Drakeley Swimming Pool Co. Woodbury, Connecticut





"Our projects all looked good before I became involved in the Genesis movement, but we really didn't know how to push the envelope with respect to design: We shied away from water-in-transit systems and unique materials and anything particularly creative.

"Now that we're involved with Genesis, we're far more sophisticated in the range of features we offer our clients, far better at presenting our ideas and far more capable of creating projects that appeal to our clients.

"We've jumped several levels in terms of the 'wow factor.' People in our market now know that if they want an ordinary project, they call someone else - but if they want something spectacular, we're the company to call. Bottom line: Through Genesis, we've learned all the different things you can do with water and how to become artists."





Pure Water Pools Costa Mesa, California

"Genesis has changed everything for me. I came into the industry as a service technician, but now I'm designing and building projects at a level that's greater than any I could ever have envisioned – and it all began when I went through my first Genesis program.

"Through Genesis, I've come to see my work as part of the overall environment and learned how, through design, I could improve the quality of my clients' lives as well as my own. In fact, since starting with the Genesis program, I have multiplied my income several times and have taken to traveling in big ways, and I owe both to Genesis.

"I don't like to consider where I'd be had I not found this resource, but I'm thrilled to consider the future now that I have: Genesis has unlocked my potential in ways I could have never anticipated or imagined before. It's changed everything for me – everything!"





#### Joan Roca

Aquart J. Roca Guanacaste, Costa Rica

"Before Genesis, I did nice work, but now I do *great* work. It's as simple as that.

"But to me, Genesis is about more than the work: It's all about

leading a happy life. You learn to do incredible things with water and become excited about what you're doing because you're not afraid and have the courage to be creative, but the best part of the program is the people you meet who have the same outlook and are doing the same thing.

"They all want to improve their work and be happier about themselves as professionals, and I have made great friends and learned so much through Genesis. I now do wonderful projects for my clients, all of whom appreciate having something no one else has. In that way, Genesis has not only changed *my* life, but has given something important to my clients through what I do.

"Yes, Genesis helps you make more money and be more successful, but what it really does is inspire you to think differently about your work and yourself!"







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

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# Estate of Mind

Some projects simply give watershapers a chance to shine. That's what happened in this case, says designer/builder Bill Goddard, describing how his clients gave him a bare patch of land, let him contour it and then had him install a giant pool with a sandy beach, a gargantuan waterfall system, a trio of decorative fountains, a range of custom hardscape details, a host of mature trees and a network of pathways leading to perfectly restful destinations.





#### Working on estate-sized residential projects

is like assembling huge jigsaw puzzles in which all sorts of disparate pieces must ultimately fit together. While many of the individual parts have their own character and entail particular design and construction challenges, they're all part of a big picture you need to hold firmly in mind through every project phase.

At GCS of Woodbridge, Calif., we pride ourselves on operating on a grand scale and on delivering the whole package, from landscape, hardscape, irrigation, control, communications, lighting and sound systems to watershapes of all sizes and types. Keeping all those elements sorted out within a single operation means we need to strike all the balances ourselves – not only in terms of design and on-site operations, but also with respect to clients' wish lists and their creative ideas.

It's always challenging, but there's no question that working on this level for clients who are looking to reward themselves with at-home paradises is tremendously exciting and rewarding. A case in point is the project covered here, which we completed for a five-acre property in an upscale neighborhood just outside of Stockton, Calif. In size, this is actually the smallest property on which our firm has ever worked, but it nonetheless stands as a prime example of the sorts of considerations these projects encompass.

#### The Blank Page

For the most part, watershapers walk onto properties that already have existing features that guide major design decisions. In this instance, however, the site was completely bare —not a twig, mound or blade of grass to be seen. There were markings for the property lines and the footprint of the house, but that was it.

The clients, who are real estate developers and had heard about us through a couple of their suppliers, were building their dream home. Even with referrals like these, however, we're very picky about the clients we choose to work with and accept only those who seek something unique *and* who are interested in being a part of the creative process. (That's an entirely subjective dividing line, but truth be told, if I don't get a sense that the clients are utterly joyful about creating an at-home oasis, I'm not interested.)

Happily, these are wonderful people. Not only did they want a beautiful land-scape design, but they were also extremely interested in including a variety of watershapes as key focal points within the space. That was ideal, as I am passionate about using water as a primary design element. Indeed, it seemed a great match, and before long we decided to move forward.

The design process alone took about three months. Unlike many other firms working in landscape architecture, watershaping and construction, we don't develop numerous drawings. Where some might give clients 50 pages (or more) of material for a project of this scope, we prepared just a handful – not much more than key plan views and perspectives.

Where we spend our time and energy is in interviewing the clients and running them through extensive questionnaires, extracting key bits of information that enable us to develop basic design schemes that meet their needs. In this case, one of the big points of interest we uncovered had to do with how many people these clients wanted to be able to entertain at one time.

Almost immediately, we knew the scope and scale would be large: They wanted to be able to throw elaborate parties for at least 250 guests, which meant the usual sorts of backyard swimming pools and patios were off the table and that we had to think *big*. (We've been told, by the way, that they recently had a charity gathering for more than 600 guests and that the spaces we established for them were ample.)

All through the design process, we talked constantly about the general layout and the materials we'd use, including the types of rock and plantings they wanted. One of the key early decisions came with my suggestion to use a molded, light-colored capstone for the home – a look we picked up as a key recurring detail throughout the landscape on the tops of walls and balustrades.

#### Free Rein

Although the home and its surroundings don't fall into any particular architectural style, it's all quite ele-





We started on site with a literal blank slate – a flat, featureless lot. But the trees on an adjoining property helped us set the pattern for a massive contouring process that ultimately saw us bring in 16,000 tons of soil, every grain of which we carefully compacted into place.



gant and leans toward simple classical forms with its circular fountains, sweeping balustrades and axial layout and views. *Understated* is a word that comes to mind, but perhaps more important, there's the fact that what you see befits the upscale setting and the clients' personalities.

Once the homeowners were satisfied with the general direction we outlined in our plans, they basically sat back and let us go to work. Although they never lost personal interest, they gave us tremendous creative freedom every step of the way. We took their cue and forged ahead.

Personally, I love working with natural stone as a design element, and this project has a lot of it. There's a great deal of ledger-stone detailing, for example, but with the twist that it's made up of five different stone types that lend the work a visual interest and color scheme that is mirrored in the near-mosaic quality of flagstone decking that covers more than 9,000 square feet of surface area.

But the work was about more than large expanses of deck: The plan also

A primary need on site was for an area suited to entertaining upwards of 250 guests at a time, a capacity we achieved mostly on the flagstone terrace surrounding the large cabaña – a space we also set up with fountains, shade structures and a complete outdoor kitchen.





included an extremely elaborate covered dog run; a power building; a super-sized, pool-side cabaña featuring French doors that open onto views of the pool and the surrounding area; a private outdoor fireplace outside the cabaña; 1,500 linear feet of stone/decomposed granite pathways; three fountains; a behemoth, 6,000-square-foot pool with a sandy-beach entrance; and an enormous waterfall structure with 750 tons of moss rock, four separate ponds, a fog system (by Fogco, La Quinta, Calif.), three bridges, various pathways and a ten-person grotto rigged with lighting, a sound system and intercoms.

The work also includes hundreds of low-voltage landscape lighting fixtures all provided by Nightscaping (Redlands, Calif.); more than 250 mature trees of more than 25 different species; five custom stone mosaic medallions; and a grapevine motif that appears on pillars



The 6,000 square foot pool dominates its space, with a large beach entry marked by shifting colors in the exposed-aggregate finish and a rock-waterfall structure built using 750 tons of moss rock.

and pilasters and in the metalwork on the front gate. A late addition to the program was a courtyard wall fountain, and there was also a special area known as "The Icon" – a private space to be used for special occasions.

Simply listing all these elements makes the project seem exhausting, which it was in several respects. Yet seeing this pastiche of water and land-scaping emerge from a bare plot of land was exhilarating, even though it was our main focus for almost three years from start to finish and we still go back from time to time to work on a handful of finish details.

#### Digging In

One of the keys to succeeding with a project of this scope has to do with what you set up underground.

In this case, the first thing we installed on site was a 1,700-foot long utility loop that ran throughout the property. That loop includes junction boxes at 50-foot intervals and consists of three large electrical conduits, six miles of control wire and our primary three-inch irrigation line. In addition, we installed several extra pipes knowing that we might need them for something unforeseen. Before long, we filled one of these sleeves with lines for the sound system and the property's communications network.

It's just common sense: On a multilayered project like this, you're going to need extensive utilities for all sorts of reasons, some of them anticipated and some of them unforeseen. If you don't start with proper access underground and the ability to expand services, you can wind up consuming huge amounts of time retracing your steps and adding lines after the fact.

Once all of those runs were in place – all carefully flagged and labeled so we knew where and what everything was – it was time to begin the grading process.

Not only was the site barren when we arrived, it was also completely flat. In my opinion, it's almost impossible to make a perfectly flat space as visually interesting as one with contours no matter how hard you try, so we brought an array of grading equipment onto the site and went to work.

By the time we were finished, we'd brought in more than 16,000 tons of soil to build up the grade to as high as 15 feet at the peak of the waterfall area. Our aim is always to texture the landscape, and in this instance we created gently rolling terrain that offers layered vistas and a distinct, three-dimensional sense of movement as you move through the space.

(To help our clients visualize the effects of this work beforehand, we marked the site with vertical pipes in various spots and walked them through various areas to give them a definite sense of the value of the extensive grading we'd be doing.)



Throughout this entire phase, we strictly adhered to proper compaction routines to minimize the possibility of movement later on that might damage structures or hardscape features. That's another key to success in any landscape, especially one of this complexity: You don't want yo invite problems with ground movement that could have been avoided with adequate compaction!

#### Water Wonderland

As a company, we prefer to jump right in with big projects, so it's appropriate that the first swimming pool we ever built was truly colossal.

And of course, we came prepared: Before we started our work, we did a tremendous amount of research to ensure that we were on the right track. We'd built other watershapes before – mostly fountains and large pond/stream/waterfall compositions – and have our own concrete batch facility to create precise mix schedules, so we didn't feel like novices by any means. But there's something about doing anything for the first time that put us all on our toes.

With our previous watershapes, we'd always used a waterproofed concrete mix that we'd pour and trowel into place. This time, however, we were using gunite and went about learning all we could about the application process in preparation for what would be an enormous initial shoot.

We paid great attention to the advice offered by a pair of regular *WaterShapes* contributors – engineer Ron Lacher and watershaper *par excellence* David Tisherman in particular – both of whom have repeatedly made the point that rebound

## Key Details

As with any sophisticated design, this project had a set of important details used throughout the site to integrate impressions and give the place a personality all its own.

▶ Grapevines and leaves: The estate is located in an area of vineyards, so on pillars and pilasters throughout the site, we used





a prefabricated, molded stone that features grapevines and leaves in a textured relief. We also picked up this motif in the front gate's metalwork, including bunches of grapes we made by hammering ball bearings flat and welding them together at our shop.

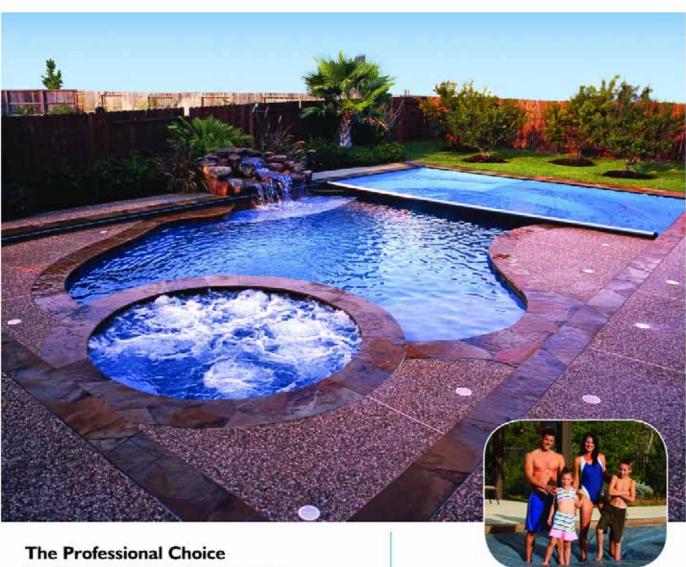
▶ Stone medallions: The beautiful stone decking features five circular stone mosaics inlayed at strategic spots. (We've installed these figures in so many of our projects that it's become something of a trademark.) Every mosaic is different, with varying angles and geometry within the circle. In this case, these insets neatly echoed the forms of the circular fountains.

▶ Pinnacle stones: For the waterfall structure, we decided to add a measure of visual interest by adding sets of dramatic upright stones in two places. These create interesting focal points that draw the eye into the complexity of the waterfall structure while making bold visual statements on their own.

-B.G.



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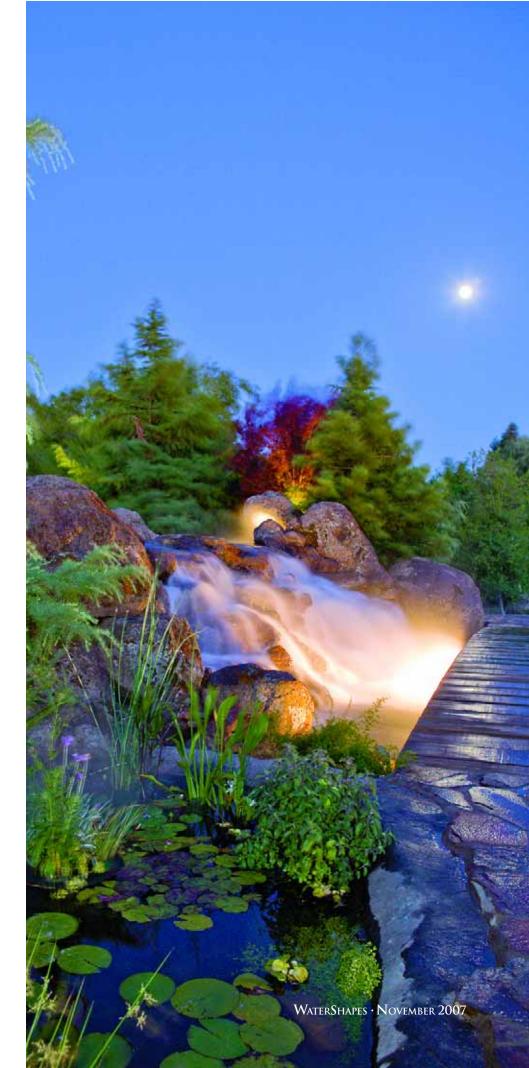
should never be used in a gunite shell. To get us ready in practical terms, we brought in a structural gunite company that specializes in critical applications (such as installing mine shafts) to teach our in-house crews how to mix and apply the material properly.

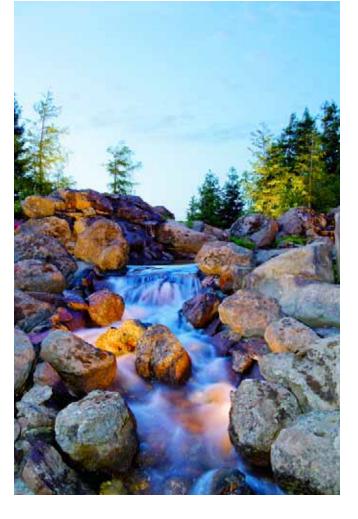
We followed their advice to the letter, setting up a member of our staff with a one-inch air wand right next to the nozzle operator to make sure that no rebound was left anywhere near the structural concrete. We also used a gunite mix that, at 4,500 psi, would have strength well in excess of code requirements. In addition, we took meticulous care to ensure the entire shell was installed per properly engineered structural plans.

This massive pool is bordered on one side by the outsized waterfall structure and its grotto. Installing the 750 tons of rock materials on this slope took weeks of careful placement and adjustment to achieve a natural appearance. The stone itself is a heavily weathered moss rock we found at a quarry on the way to Yosemite National Park. The rock is locked in place both by gravity and by grout that we acid-stained to blend in with the natural material.

On the slope, we built four welling ponds that are connected by a pair of slow-moving streams. The waterfall also has two Koi ponds and a watergarden: They look as though they're part of the stream visually, but they are actually separate and have their own filtering systems. Combined, the system has a flow rate of 2,000 gallons per minute, but we didn't want it to seem as though a torrent was being forced over the top of the falls, so we spread the return flows out within the four ponds - again to achieve a more natural appearance. We also installed 18 "springs," pneumatically rockdrilling them into strategic locations in the rock formations.

The waterfall system that cascades into the pool (and over a large grotto) stretches well beyond the pool's perimeter and features four ponds, multiple bridges, a mist system and an elaborate lighting system. The space is also traversed by several decomposed-granite pathways.





# Mass Plantings

As mentioned in the accompanying text, there wasn't even a shrub in view on the entire property when we arrived. On the back side of the lot, however, there was a clear view to a stand of Aptos Blue Redwoods a neighbor had established along the property line – and I knew right away that this was where we'd place the waterfall structure because it would have a ready-made backdrop.

But not all of the arborial views were borrowed: We brought in lots of large, mature trees, including several dozen redwoods along with about 60 White Birches (which the clients love), and planted them throughout the property. In addition, we brought in many species with a variety of textures and colors, including several Deodaras (which I personally selected in Oregon), Camphors, flowering Plums, Bradford Pears, Strawberry trees and three 45-year-old specimen Japanese maples, among many others.

-B.G.











### **Special Places**

This landscape features a number of destinations meant to provide increased functionality while also rewarding those who wander out by treating them to a surprise or two.

- ▶ The Cabaña: This building was originally set at 1,200 square feet but was expanded during the design phase to an ultimate size of 1,500 square feet. This truly outsized pool house has two bathrooms, spacious common areas, a full kitchen/preparation area and a series of arched French doors that lead to a deck offering views of the pool area.
- ▶ The Icon: This unique area was developed because the clients' son is a minister who was so impressed by the way things were going that he asked his parents to establish a space where he could perform weddings. This amalgam of curved planters, a long balustrade and a wooden shade structure supported by round concrete pillars serves as both a focal point as well as a visual transition between the cabaña and the pool.
- ▶ The Fireplace: Just outside the cabaña, we developed an intimate courtyard surrounded by capped curvilinear walls and planters and featuring a fireplace at one end. This space is sheltered from the prevailing winds, allowing family and friends to sit comfortably and enjoy the fire even when there's a stiff breeze.
- ▶ The Wall Fountain: This small space was actually an afterthought. Set along a pathway between the front of the estate and the pool, it's a formal feature but offers an extremely relaxing, surprising destination for quiet conversation or private meditation.
- ▶ The Wisteria Tunnel: Positioned on a decomposed-granite pathway behind The Icon, this simple but beautiful curved structure made of steel tubes and covered in hanging wisteria creates an arched corridor of vivid color when in bloom.

- **B. G.** 





Encompassed by a long driveway, this circular fountain is the first thing guests see when they arrive on the property. It's a formal look and lends a classic grandeur that foretells the elegance found throughout the site and the home itself.

#### **Setting Stages**

The waterfall serves as one of the main destinations within the property – a tranquil space filled with the sound of moving water and, from its relatively high vantage point, offering views over much of the property as well as the pool below.

The pool itself has a sandy beach approximately ten feet wide and 30 feet long. The sand, which is about a foot thick at its deepest point, is contained by a small berm that runs the length of the area about eight inches below the waterline. It's a remarkably white material I

found at a quarry near Sacramento, Calif.

Given its presence, we deliberately located the nearest suction lines – that is, the dual main drains in the deep end – some 50 feet away; we've found that even when the pool receives high use, very little of the sand migrates away from the beach and none (so far, anyway) has found its way into the circulation system.

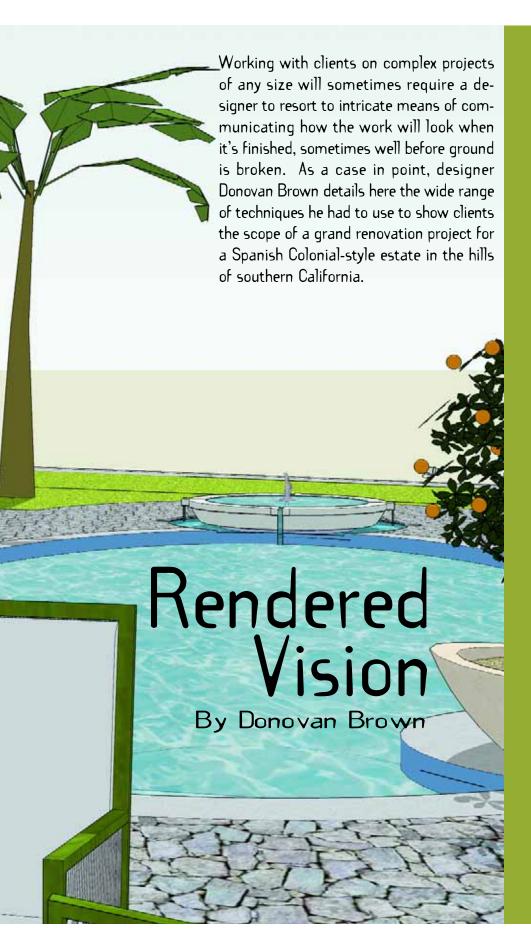
The pool is finished in two colors of an exposed-aggregate finish (River Rock, supplied by SGM of Pompano Beach, Fla.): a deep gray in the deeper portions that transitions to a light beige in the shallows to blend visually with the sand.

Away from the pool area – and actually the first thing visitors see when they arrive – is another major watershape, this one a beautiful circular fountain located in the center of a large lawn bordered by a grand, U-shaped driveway. Although the fountain itself has a simple, classic look, the hydraulic arrangement is actually quite tricky. To help us work things out, we turned to The Fountain People (San Marcos, Texas) to design the circulation system, organize the jet arrays and create a fiberglass equipment vault that is now buried in the lawn adjacent to the fountain.

The core of the fountain is a five-foot ring of spray jets combined with a center spray that sends water up to 20 feet high, creating a surprisingly complex visual effect we dubbed the "Water Castle." This water flows to a second tier that features small, tapered spillways flowing to the third and lowest tier. As it turned out, balancing the flows among the various tiers proved quite a challenge – one solved by placing a diverter line on the second level to reduce the volume of water and allow for orderly flow through the spillways.

Although we typically keep the vast majority of the work in house, in situations where we need expert help we don't hesitate to seek the best people we can find to help us make all of the pieces of the puzzle fit – and fit perfectly – from beginning to end. The outcome in this case is an overall composition that suits the site, pleases the clients and has become a proud component of our portfolio.





In this day and age, designers have a variety of ways to communicate their ideas to clients – hand drawings, models and computer imagery among them. We also know every client is unique and that each has his or her own way of absorbing information and processing concepts. Although there are some who never fully understand a designer's vision until a project's been built, most clients will accept one style of design presentation or another and in some way visualize what's happening.

In the project we're currently engaged in with an historic Spanish Colonial Revival home in Orange County, Calif., however, we at Holdenwater, a design firm based in Fullerton, Calif., have had to use *four* different methods to convey our ideas.

We've always dedicated ourselves to staying at the cutting edge when it comes to presentation strategies, but never before have we been compelled to use so many different media to make our case to a client. And since then we've had to keep on refining and reconveying those ideas over and over again as the process has moved forward.

In this case, we used not only oldschool techniques including hand-rendered drawings and models made of clay and wood but also went high-tech, using computer-assisted drafting as well as three-dimensional, computer-generated renderings to present ideas and show these clients what we think they want. All four methods have their benefits and limitations – and in this instance, we found that we needed every single one of them to help our clients understand how their property would eventually appear.









The grounds we were asked to revise surround a vintage Spanish Colonial-style house that has all the right structural and interior attributes but suffers from some serious problems outdoors. The pool and its exposed equipment pad, for example, intrude on what should be a cool, peaceful courtyard, and the rest of the yard is dotted with awkward little spaces that need significant attention.

#### Reworking a Classic

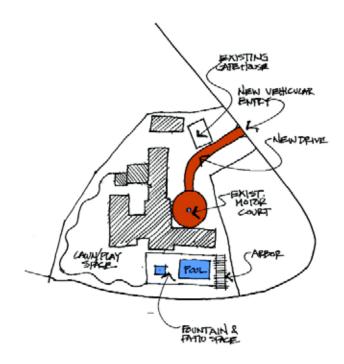
This project encompasses the complete revising of the spaces surrounding an old house on a two-acre hilltop property in Tustin, Calif. The home, which was built in 1927 by William Irvine, a developer whose work still dominates much of Orange County, is undergoing major renovations intended to restore the faded glory of its Spanish Colonial styling.

Before contacting us, the current owners had plowed through a series of landscape architecture firms, none of which had displayed an understanding of exactly what they were after. They had considerable design expertise coming in – he's a general contractor for large resort properties and she's an accomplished interior designer – and both spoke the language of design in bringing sophisticated ideas to the table.

They had seen our work in magazines and had been impressed by what we'd done on estates of similar vintage and style and particularly by our evident understanding of the sensibilities of California's early-20th-Century approach to Spanish Colonial environments.

We weren't immediately interested, however, as much of our focus lately has been on design work for large-scale commercial projects. But what they offered seemed a perfect fit with our background and experience, so we agreed to add our name to the list of candidates.

We made our decisive mark with a single hand-drawn rendering – the best-available approach in the context of our key meeting with these clients. Even though we use computers for



A simple hand-drawn and -colored rendering of a step/planter detail convinced the clients that, on some level, we knew exactly what they were after – and proved to be the key to our winning the job. Oftentimes, such details and flat, drawn schematics are enough to drive a project along, but in this particular situation with these specific clients, we soon recognized that we needed to go further in helping them visualize key project features.









In discussing a grotto/private spa area to be set next to the home's design studio, we recognized that sketches and renderings weren't doing well at conveying our intentions, so I broke out the clay and some reasonably-close-to-scale figurines and developed a model that let all of us see things in three dimensions from every working angle. The clients loved what they saw, and this area is now firmly on the project agenda.

all of our design work these days, we needed to show them quickly what we were thinking about the way a particular area might look.

It was just a simple, roughly drawn sketch of a planter/step detail, but for whatever reason it captured the spirit and essence of the type of ideas we thought would work for the project – and from that moment on, they believed they'd reached the end of their quest and that we were the ones they wanted.

This pen-and-colored-pencil sketch was the very first design idea we developed, and as it has turned out, it's one of the few that, so far, has held as a firm concept throughout the process. Along the way, we've assumed responsibility for

everything beyond the walls of the rambling, ranch-style house.

One of the first tasks we tackled in a formal, large-scale way was a tight space adjacent to a design studio: The clients wanted something private and unusual that fit within the overall design scheme.

#### Developing a Vision

The small space is in a sloped area next to a two-level section of the house. We suggested developing a private spa area there that would include rockwork, plantings, a spa and a grotto that would reach into the hillside like a natural cave.

As we began developing this space, we quickly realized that no sketch or computer rendering would give the clients

the information they needed to form a worthwhile mental picture of how the space would look. In fact, working on flat media put *us* in a place where we didn't think we could ever truly communicate the essence of the space.

As a result, we decided to venture into the world of Plasticine clay to sculpt the delicate details of the space. My background includes extensive work in television and movies related to modelmaking and special effects, but my first experience applying those skills to landscape and watershape design came a few years ago at a time when our firm was collaborating with artificial rock pioneer Philip diGiacomo.

He's a master of presentation and of-

ten uses extremely detailed models to demonstrate concepts to clients. We thought this sort of elaborate presentation technique would illustrate our ideas in ways that simply couldn't be achieved otherwise.

Frankly, there's something special about being able to look at a model: You can step back and look at it from a distance, move around and view it from all angles – and get close enough to imagine yourself in the space. There's also a "wow" factor with models, a sort of visceral joy in conceptualization that can't be conveyed in any other way.

In this instance, it worked like a charm: Our clients fell in love with the idea and to this day remain thoroughly enamored of the concept – and what it took was a \$2,500 model to make them fall in love with a project feature that ultimately will be realized at about a hundred times that cost.

And the model will have staying power in that we plan to use it during the

construction phase to make certain its every detail is represented in the field. As such, it's a case of a presentation method becoming an on-site guide for key suppliers and contractors that gives them a clear understanding of the look we want to achieve.

It also bears mentioning that, with both initial small sketch and model, it was obvious to us that the clients were beginning to see us not only as designers of landscapes and watershapes, but also as artists. There's something about media in which a designer uses his or her hands in the act of creation that seems to impress certain clients – even those who have design backgrounds.

#### Going Digital

For all that, we certainly live in a digital age, so design competence these days also means being well versed in computers.

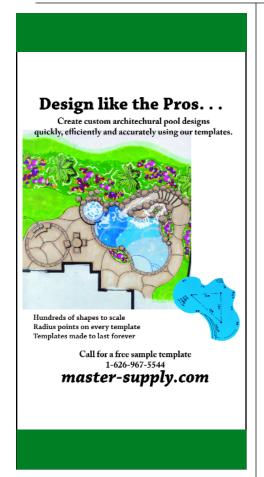
Computer-assisted design (CAD) renderings have been around for a long time now, and the technology has already be-

come one of the greatest design tools of the modern age. The days of drawing plans and details over and over are gone, and I don't perceive any mourning at the passage of the era of repeated blueprinting and burning of mylar prints.

With a project such as this one, which features clients who constantly revise their thinking, the flexibility provided by digital methods creates a fluid design process that can be ongoing for weeks or months or even years. That's really no problem, because when you are competent in computer-assisted design, the prospect of changing details is neither time-consuming nor difficult.

And when that basic ability is backed up by artistic vision and combines with clients who really enjoy the process, what you have is a tool that supports artistry while at the same time it allows for refinement of ideas almost at a moment's notice. In a word, it's *liberating*.

Since we started the process in spring of 2007, we've used this technology to

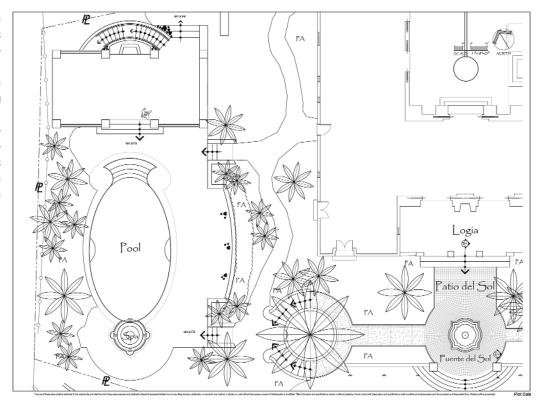




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For a project such as this one where the design process is lengthy and filled with give-and-take discussions of each detail, our familiarity with and capable use of computer-assisted-design technology is proving invaluable. It's helping us deal with a near-constant flow of changes and adjustments – and again serves as a ready, easy way to help the clients visualize everything as we move forward.









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slide and move elements literally hundreds of times around the rambling perimeter of the house. Without CAD, we would have been stuck erasing and redrawing these elements every time the wind changed directions.

Indeed, the realm of electronically represented vectors is all about adaptation. As clay can be subtly pushed with a thumb, a digital pool or fountain can be nudged, rotated or scaled in a matter of seconds. Better still, these computer images are all layered and carry with them essential documentation that will become critically important in the construction phase. Mechanical plans for pools, hardscape sections, irrigation plans, utilities – they're all there in the computer until we need to output them from any viewpoint and in any scale.

Presenting these CAD drawings is also a breeze. Once a design is ready, we decide how we want to crop and scale our views, encase them in our company's title-block frame and send them to a plotter to create documents our clients can see, review and discuss.

So here we were, with sketches, models and CAD drawings in hand – and we started to feel as though something was missing, as though we needed another means of bridging the gaps and help these media to converge. This is when we turned to three-dimensional computer modeling and began taking our flat, two-dimensional renderings and bringing them to life with accurate shadows and realistic textures.

Happily, the two computer-based system are linked, so changes made in two dimensions automatically translate to our three-dimensional files.

#### Completing the Picture

As we see it, our capability with threedimensional rendering gives us a digital version of the old-school model concept – but at a tiny fraction of the cost. Although these clients were impressed with the model I built, they were reasonably reluctant to shell out that kind of money to have us work up clay models for the entire site. That classic process was perfectly suited to one area of the project, but we all agreed that different communication tools would suffice elsewhere — with computer models largely filling the bill when it came to conveying information about other project features.

And there's that wonderful flexibility factor: We ran through several water-display ideas, for example, and sliding new fountain configurations into our virtual models was always a snap. What's more, we were able to set things up to give our clients "virtual walk throughs" of these spaces by rotating and moving through the field of vision. This bonus is an utter revelation to just about anyone who's having trouble understanding a space.

At this point, we are currently working with literally scores of three-dimension-







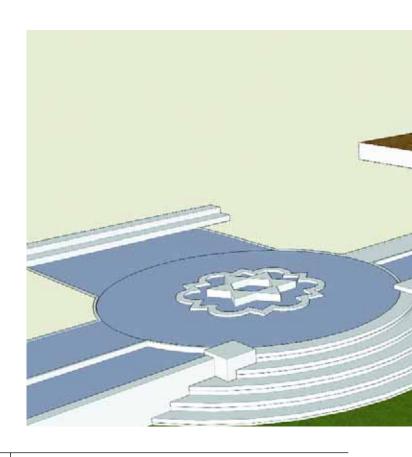
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al models that are being changed almost daily as we swap out materials and plants. Sometimes, we change out entire structures, whether it's just to see how things work or part of our effort to line what we're doing up with our clients' ideas.

In this particular project, the clients' design sophistication has made the process extremely fluid and dynamic, a steady procession of collaborative revision that is possible only because of the ease and convenience of three-dimensional modeling.

In essence, this project so far has been an object lesson in the nature of communication and has had its greatest value in letting us know that there is no single, perfect tool that enables clients to understand design ideas. As watershapers, we must evaluate our clients, their budgets and specific site issues and judge which methods are needed. Sometimes, one will be all it takes; other times, all four of those I've described here come into play. On occasion a fifth – that is, the spoken word and the pictures we can create with them – comes into play. As designers, we have to make the call and deal with the implications.

For this project – still very much in the early stages and subject to almost daily changes – we have learned at the very least that with sophisticated clients with complex ideas and extensive sites, it pays to have multiple presentation methods available for use. They have enabled us to apply our talents to the fullest as we extract information and ideas from the clients and the site that, someday soon, will lead to memorable results.

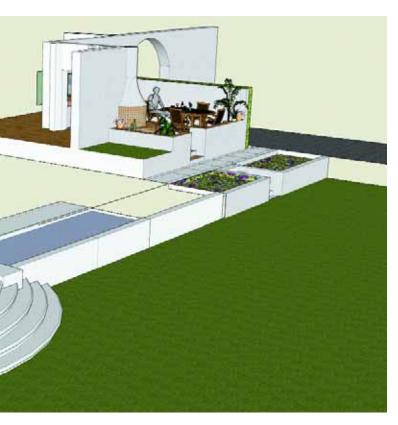




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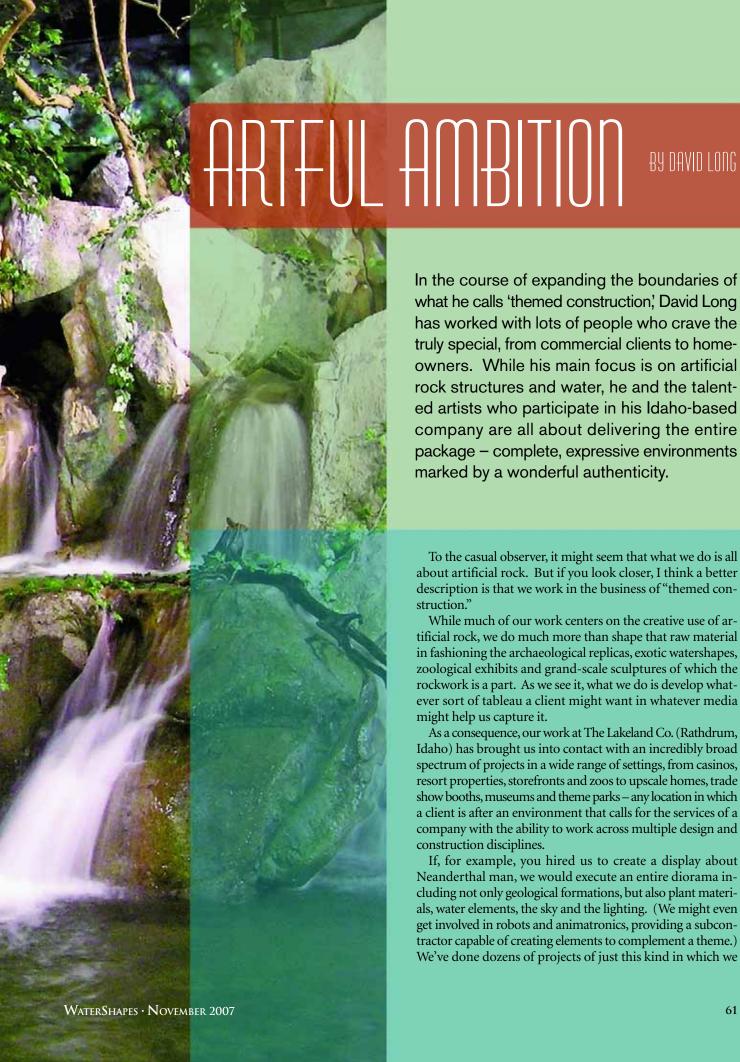






A computer's current ability to take basic CAD drawings and translate them into three-dimensional renderings is another method of communicating spatial information to clients that is working wonders with this project. We can literally walk them through these settings step by step, showing them, for example, the spatial relationship between a quatrefoil fountain and an outdoor kitchen, how the pool looks from various angles and elevations, what it will be like to walk through the open pavilion — and conveying the experience of moving around that step/planter detail that was so important to our winning the project in the first place.





In the course of expanding the boundaries of what he calls 'themed construction,' David Long has worked with lots of people who crave the truly special, from commercial clients to homeowners. While his main focus is on artificial rock structures and water, he and the talented artists who participate in his Idaho-based company are all about delivering the entire package - complete, expressive environments marked by a wonderful authenticity.

To the casual observer, it might seem that what we do is all about artificial rock. But if you look closer, I think a better description is that we work in the business of "themed construction."

While much of our work centers on the creative use of artificial rock, we do much more than shape that raw material in fashioning the archaeological replicas, exotic watershapes, zoological exhibits and grand-scale sculptures of which the rockwork is a part. As we see it, what we do is develop whatever sort of tableau a client might want in whatever media might help us capture it.

As a consequence, our work at The Lakeland Co. (Rathdrum, Idaho) has brought us into contact with an incredibly broad spectrum of projects in a wide range of settings, from casinos, resort properties, storefronts and zoos to upscale homes, trade show booths, museums and theme parks – any location in which a client is after an environment that calls for the services of a company with the ability to work across multiple design and construction disciplines.

If, for example, you hired us to create a display about Neanderthal man, we would execute an entire diorama including not only geological formations, but also plant materials, water elements, the sky and the lighting. (We might even get involved in robots and animatronics, providing a subcontractor capable of creating elements to complement a theme.) We've done dozens of projects of just this kind in which we might become involved in a dozen or more specific design/construction disciplines all at once.

It's great fun – and monstrously detailed work.

#### RASIC CONCEPTS

I grew up amid the sign and display business, working with my dad from the time I was nine years old. I managed to wander off course a time or two, spending several years as a rodeo bronc rider and selling pen-and-ink paintings on leather to help make ends meet, but I always found my way back to the display business for two simple reasons.

First, I find the work constantly challenging and intrinsically fascinating; second, I always saw an opportunity to push way past convention and operate a display business on the extreme leading edge. I also like the fact that every project we do is completely different from all the rest, each possessed of its own set of rules and requirements.

For all that, the process always begins the same way with an exhaustive sort of research I find incredibly interesting and stimulating. The range of subjects we've gotten involved with is virtually limitless, and developing truly authentic displays means that, through the years, we've necessarily become well versed across topics including archaeology, geology, botany, history, zoology and meteorology as well as all the specifics of design, engineering, fabrication, installation and finish work.

As an example, we recently built a replica of a portion of the Great Wall of China. To do so, we had to find out everything we could about the structure, including the type of stone that was used, the way it was cut and laid down, and the way the material had weathered across the centuries. Bottom line: You can't build a convincing replica of the Great Wall of China without knowing almost everything about it.

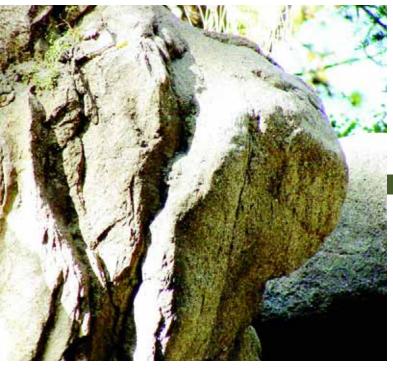
We use this sort of research to develop extensive conceptual drawings that help our clients fully visualize the outcome of our work – both overviews and fine details. Such presentations are supported with information on material selections as well as the fabrication and on the construction phases right down to finish schedules. If the installation is temporary (as for a trade show) we plan accordingly. If it's for a home, we lay out what it will take to have our work survive indefinitely.

Along the way, we look at the installation from every conceivable angle, considering location, size and the variety of elements we'll be using before establishing the materials palette and construction approach. For instance, we might decide we can make a particular structure more durable by filling

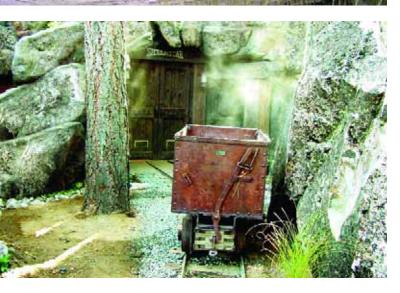
The hallmark of our work is the fine texturing and coloring we impart to the surfaces of our artificial rock and other landscape elements (such as trees) that inhabit the settings we create. This attention to detail consumes a great deal of time and labor; in fact, these fine finishes can represent upwards of 95 percent of our work on any given project.











the rockwork with solid concrete rather than working with a hollowed form supported by a steel armature.

The physical setting is, of course, a factor to be considered. If, for example, we're building a 20-foot-tall cliff/waterfall structure inside a two-story house, we would almost certainly not fill the rockwork with concrete because of the weight involved. If, by contrast, we're working outside on a waterfall structure that doubles as a retaining wall (a common scenario), we'll build with engineered footings and a solid structure that does the job.

#### IJIATER FACTORS

About 85 percent of our projects include water of some kind, which brings us fully into the realm of sophisticated watershaping.

Through the years, we've worked with a number of design and engineering consultants who define the details of our hydraulic and water-treatment systems – particularly the teams at Hobbs Fountains (Atlanta) and Roman Fountains (Albuquerque, N.M.). These professionals answer our questions and understand the nature of what we're trying to accomplish. Typically, we send them CAD files of our conceptual drawings and they'll work up flow requirements, volumes, plumbing sizes and details of the equipment sets.

We deliberately overshoot in terms of the amount of water involved, usually specifying systems with 30 or 40 percent greater capacity than we think we'll need. We do so because experience has taught us that many clients will ask for greater flows once they see a system installed and running. Obviously, it's much easier to turn things down than it is to rebuild a system to hold more water!

In those situations where water is included, we see our watershapes and our rockwork as being completely integrated with one another. Whether we're using GFRC-reinforced panels built to exacting ASTM standards or a technique known as "positive carving" where we use shotcrete or gunite that we form and texture in the field, our ambition is to make things seamlessly natural from every viewing angle.

If we're creating a scene in the Los Angeles area that's meant to mimic local rock formations, for example, our preference would be to use a positive-carving approach because the rocks in that area tend to be rounded – a situation that doesn't warrant making molds and prefabricating panels. When we do create panels, we take the molds ourselves and fabricate panels using a special laser-cutting system that enables us to create facsimiles down to the smallest detail.

Generally speaking, the setting and style of the project determine the techniques we'll use – along, of course, with the engineering requirements. Budget is also a factor, although most clients who come to us are ready and willing to spend what it takes to obtain the very best.

Even so, we're always looking for smart ways to save our clients money on these projects, which can cost well into the millions. In many cases, for example, we'll mix natural stone in with the artificial rock to save the costs associated with fabricating every single piece of stone in a large display.

#### THE EYES HAVE I

For all of the technology we apply and all the custom construction techniques we use, the standard by which we work is really very simple: The results must look right to the eye.

We are always aware that, in the end, our work has to be driven by this sort of completely subjective evaluation: If things don't look right, we're not finished – and we'll keep at it until everything works visually. As I see it, it's entirely up to us to do the job right and to do it for the quoted cost.

With rockwork for streams, waterfalls or ponds, we please critical eyes by going to great lengths to recreate what one might experience in nature. You don't, for example, typically see knifeedge weirs in the wild; instead, you see complex cascades and random (but meaningful) rock distribution and, almost invariably, evidence of erosion.

We'll also set up formations that appear as though larger rocks have broken apart and you can see where one piece was originally part of another. We arrange plantings and softscape around formations in natural ways that soften their appearance. And we'll insert details such as fallen logs or the stumps of broken trees to generate further sensations of an authentic, natural experience.

That level of detail requires a tremendous amount of formal research of the sort mentioned above, but there is always a need for constant, subjective assessment of how realistic our work looks on site. To us, this means that our finish work is all-important. In fact, I often say that the finishes represent 95 percent of our work on any given project – and sometimes more.

Our staff includes a tremendous group of artists who do nothing other than color and texture our rockwork. This can be an incredibly complex process of layering colors and shadowing crevices or areas at which stone appears to come together. In some cases with large projects, the coloring process can take weeks or even months of steady, patient, focused work.

Not coincidentally, we're constantly aware of the need not to overdo it. I often say that we deliberately undersell the rockwork, favoring subtlety over grand statements in the same way nature does as a result of weathering and erosion. Of course, there are situations in which we create extremely bold formations — but that's always the result of a specific requirement of the design mission.

#### OUT AND AROUT

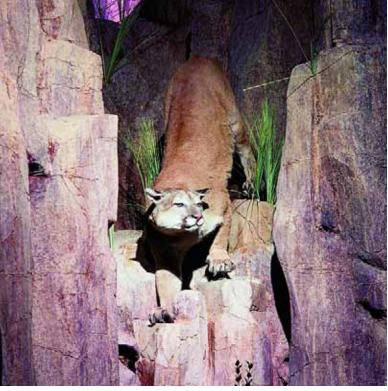
It will come as no surprise that much of what my colleagues and I do is based on close observation of nature and natural settings. In fact, I personally spend so much time looking at the ways nature works that it's almost a sickness. It's all for the good, however, and I find that the closer I get to the source, the more complex and fascinating it all becomes.

One of the truly amazing things about recreating natural forms, for example, is that you have to be careful in choosing a model because some natural things actually look really phony. People will accept that "phoniness" in nature because it is, in fact, natural. But in our work, we always have to be careful to use only those forms that people will unhesitatingly accept











Through the years, we've done a number of projects in which we've created environments in which zoo animals and aquarium fish feel comfortable enough to do what comes naturally. At the same time, we've developed entirely artificial dioramas for a variety of clients that show wild, hard-to-see creatures in their natural (and occasionally spectacular) contexts.

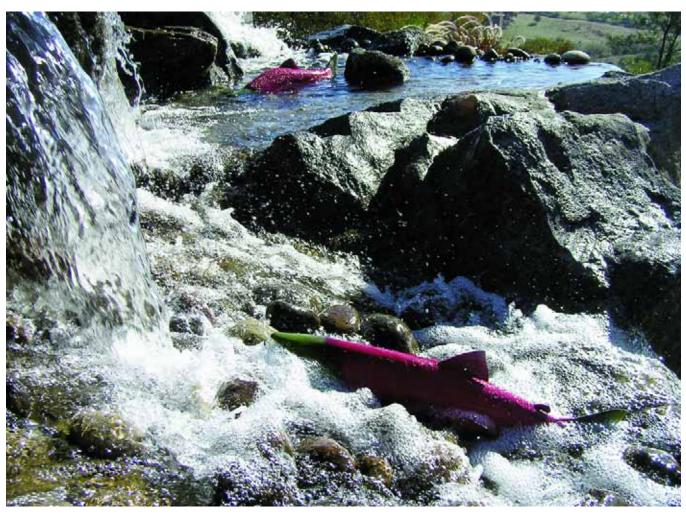


as "natural-looking."

Another key point in our observations has to do with the fact that, in nature, there's almost always evidence of movement, whether in the form of a lava flow or the process of water driving alluvium to the flatlands. There's also a similar sense of flow to the distribution of earth — and of plant material and the way it grows, dies and deteriorates.

All of these elements have to exist in complete visual balance, and actually *achieving* that balance is the result of constantly judging the work with a trained eye and responding in accordance with the research and the concepts provided.

In other words, "believability" with themed construction is about successfully combining all project elements – which in turn means that everything we do is based on teamwork, constant



Occasionally our work takes the form of poolscapes, and as a rule these clients come to us seeking something truly unusual that requires our special skills and experience. In this case, for example, we established a salmon run as part of a large rock-and-water structure.





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communication and flexible adjustment of our progress. On that level, our success is wrapped up in the success of general contractors and architects and anyone else involved in the greater tasks at hand, which is why we always work so hard to meet deadlines and get the work done in a sequence that enables other trades to get their work done on time as well.

And as much as the quality of our results sets our company apart from most firms in this field, another part of our success has to do with the way we go about our business: We stay on the job from start to finish without interruption and stand behind our work. As we see it, our fundamental commitment to service and accountability is something that sets us apart.

#### HARD FACTS

For us at The Lakeland Co., this dedication to being upstanding business-people may well be the ultimate key to our success. We've always approached our work as art, but we know that it takes more than talent and skill to satisfy clients and therefore see timeliness, accountability and the professional approach to each project as factors in our ability to provide our clients with the best possible results.

I can't count the number of times that we've been brought in on projects to correct substandard work begun by others, and in those cases we see ourselves as ambassadors for the industry: We set out to perform at a high level not only to drive our own reputation to new heights, but also to show clients that this industry does have true professionals who care about working at the highest level of quality in all aspects and phases of the work.

This is exactly why we value our competent competitors and see them more as colleagues than competitors. It's a plain, important truth: When any client is satisfied, the network of referrals and the inspiration others gain from seeing the work generate new business.

Ultimately, quality work is good for everybody in the business. It's as simple as that – and the driving philosophy behind all our endeavors. What one can envision, another can create.





#### NDEN NAADO

Client discussions in our planning phase have much to do with maintenance. Displays of the sort we design and build always require upkeep, and we spell that out in direct terms for the client. Rockwork installed outdoors, for example, is always going to change in appearance as a result of exposure to ultraviolet radiation, no matter how we work to prevent it. I explain this in detail and tell the client up front that they can either let the rockwork weather or invest in having us return every couple of years to do some touch-up and repair work.

In addition, creating realistic expectations for maintenance (and understanding the client's attitude about it) is very much a part of the early project-development stage, because a client's ability or willingness to take on the required maintenance can influence specific design decisions we'll be making all through this period.

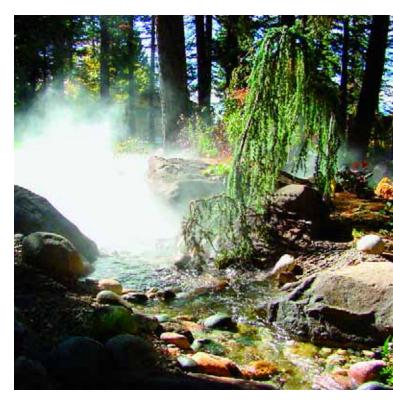
- D.L.











Water is a major component of about 85 percent of our projects, and we do all we can to integrate it completely and naturally into the artful spaces we develop. Our goal is always to make these compositions pass inspection close up, from a distance and from every conceivable angle — a talent we hone with constant, extensive observation of the ways nature works.

# Desert Moves

Creating watershapes for one of the hottest, driest places on earth might seem a bit crazy, concedes Crystal Fountains' Michael Denman. But the fact is, people living in those places have long been aware of the ability of water to increase the comfort and appeal of public and private places – and are currently updating ancient traditions with thoroughly modern watershaping technology in showplace cities throughout the Middle East.







New shopping malls are a huge attraction in Kuwait, but as exemplified by Kuwait 360°, shopping is only part of an expanded social experience. Designed by RTKL architects (which brought us in to further development of the waterfeatures) and set in a busy, growing residential area, when completed this mall will offer both engaging leisure and shopping experiences amid superb architecture and among a variety of waterfeatures including lakes, pools, cascades and streams spread over several acres.

pace with this demand, which is so great that we opened a coordination office in Kuwait in 2006 and are now in the process of setting up a branch operation in Dubai. These are exciting times, as I trust the projects I'll describe here will demonstrate.

#### **Faraway Lands**

The Middle East is a place of tremendous contrasts and extremes. Dubai, for example, is quite unbelievably hot, but it's also vested with almost unimaginable wealth and features some of the world's most outrageous expressions of architectural modernity in a setting where echoes of the distant past can be heard at every turn. It is a difficult yet remarkable place to do business, basically because the constant demand is always for pressing the boundaries of the state of the art.

Standing head and shoulders above all the projects we've done so far in the region – quite literally – is our work on the extensive range of watershapes at the Tower Park around Burj Dubai, already the world's tallest building while under construction. It will be completed in 2009, and as grand as it will be, it's only

part of a much bigger picture.

Indeed, new commissions come at us from all directions these days, with numerous projects in the design stage along with those under construction, those nearing completion and those that are now in operation. These include fountains and watershapes at shopping malls as well as for new town centers, business parks and public areas in Dubai as well as Abu Dhabi, Doha, Kuwait, Saudi Arabia and Egypt.

We opened our Kuwait office in 2006 under the capable leadership of engineer Mohamed Adhami, but we've been active in the region since the early 1990s. At that time, our markets in North America were in a collective, colossal slump, so we shifted our focus to large overseas projects in Dubai and elsewhere and have steadily built our regional business ever since.

Abu Dhabi has been pursuing a massscale beautification program for the past 15 years and more, and our most recent efforts there have been as part of the Corniche project, which includes more than 70 watershapes. Dubai began pursuing a similar program in 2004, and the challenge there has been keeping up with

# **Super Shopping**

We recently completed work for 18 waterfeatures at the extension of the BurJuman Center in the heart of Dubai, where the retail space has been expanded from 300,000 to an enormous 800,000 square feet as part of a total commercial/residential development package covering almost three million square feet.

Touted by its owners as "the world's most luxurious shopping destination," the center includes high-end retailers such as Louis Vuitton, Cartier, Ferragamo, Donna Karan and Saks Fifth Avenue. It also retains core elements of Arabic heritage and design tradition intermixed with the latest in international architectural concepts.

The four courts of the mall bear themes associated with nature: Earth, Water, Fire and Air. Working closely with the developer, the architects at KPF and retail designers at Eric Kuhne & Associates, we at Crystal Fountains oversaw the design and implementation of 18 distinctly different water elements in an area known as the "water hall" of the retail space and in the gardens of an associated residential space with lower-floor offices.

The watershapes greet visitors at the access points from three parking lots and carry them through the ground floor, first floor, second and upper levels of the mall with a variety of looks and experiences. By turns, they see water foaming, welling, bursting, spouting, raining, and flowing over sculpted marble, onyx, stainless steel or granite as clear streams, water walls and cascades, lily ponds, water under glass, sequenced water effects, laminar streams and misting effects.

-M.D.









In a commission direct from the owners of Global Touristic, we created a state-of-the-art interactive show for the Reef Oasis Blue Bay Resort in Sharm-El-Sheikh, Egypt – the first water display of its kind to be installed in that country. Featuring LED lighting with digital color mixing, the dynamic system was designed and built in less than three months and has been such a draw that many other local developers have since sought animated features of their own

the limitless ambitions of business and civic leaders.

The leisure environments we help to create there are a huge factor in Dubai's tourist trade. In fact, it can be said that Dubai is rapidly becoming a Middle East version of Las Vegas, complete with big light shows and fantastical outdoor water displays.

The noteworthy detail here is that much of Dubai's construction drive has come through private property developers rather than the government. Given our existing relationships in Abu Dhabi and the contacts we established with key

teams of designers and supporting contractors, we've enjoyed privileged access to the market on a variety of levels – and there doesn't seem to be an end in sight.

# **Extreme Watershaping**

Most of the systems we work on are located outdoors – about 90 percent, in fact.

Obviously, this positioning offers substantial challenges mostly having to do with evaporation. On average, we lose about

four-tenths of an inch per day across the total surface area of what can be large pools, so simply keeping them supplied is an issue. In some cases, we take advantage of the ready availability of seawater, but that solution brings on issues related to corrosion that narrow our choices of components, plumbing and finishes while increasing concerns about maintenance – with all of these adjustments coming at a price.

Desert winds are also a factor, raising concerns about fountain over-spray and forcing us to develop and deploy advanced control systems that lower fountain displays when the breezes pick up beyond tolerance levels to keep decks (and passersby) dry. And with the wind, of course, comes sand – an abrasive material that gets into *everything*, including equipment and components. The solution here involves use of large surge tanks that let sand settle out before water is recirculated.

Continued on page 78





Smart Village in Cairo, Egypt, is a thoroughly modern business park for high-tech/Internet-technology/communications companies including Microsoft and Vodafone. The land-scaping is designed to create the sense of an 'oasis' for company employees and their visitors; to that end, we created a lake fountain at the heart of the complex that relates to high-tech aspirations as well as 5,000 years of history and culture.

# **Scaling the Heights**

A key project for Crystal Fountains in the Middle East is currently under construction as part of what is already the world's tallest building even though it's still far from complete. Known as Burj Dubai, the structure will ultimately have more than 160 stories, was designed by Skidmore Owings & Merrill and is being developed by EMAAR Properties.

The tower will stand at the center of Downtown Burj Dubai, a \$20 billion, 500-acre development widely referred to as the most prestigious square kilometer on earth. It will feature residential, commercial and retail components, the first Armani Hotel & Residences, exclusive corporate suites, a business center, an observation platform (on Level 124!) and four luxurious pools and spas as well as 150,000 square feet of fitness facilities.

We've been working with the architects and developers almost from the start of this landmark project and ultimately will design and commission more than 20 watershapes for Tower Park (the ground-level area immediately surrounding the tower), nearby Island Park and the Boulevards that ring the space. The watershape designs shown here are not final and have been included to convey the scope and scale of the project. We anticipate many changes before our work here is complete!

Almost every imaginable sort of watershape will be featured in the environs of the tower, including stepped and wall cascades, intermediate pools (between cascades), fountains, overflowing water tables, reflecting pools and pools featuring animated display jets.

-M.D.





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Conference: January 28 – 31 Exhibits: January 29 – 31 Global geography is an issue as well, with time zones and travel offering their own sets of challenges for our Canadabased operation. With an eight-hour time difference between the Middle East and Toronto, our days can be long—and then there are the weekends: The official weekend in many Middle East states is Thursday and Friday, giving Western companies just a three-day window for business communication. That's shifting to greater acceptance of a Friday/ Saturday weekend, but for the moment, this sort of scheduling is a major concern.

Happily, language is not a barrier, as English is the language of business, contracts, drawings and documentation throughout the region. But familiarity with a language isn't the same as full and open communication of the sort we can achieve when working in the United States, for example, which means we need to go to great lengths to explain Western standards, be exceedingly careful with terminology and prepare ourselves to work with consultants from North America as well as Europe and Asia (India in particular) and a variety of other Arab countries.

This requires patience, a focus on clarity – and a willingness to make certain *everything* is documented and that processes of communication are well established, easy to follow and well used. Good training is the key, but patience is always the watchword.

Along the way, we've encountered some highly dynamic people, true leaders in shepherding in new eras of economic growth. Many are young and very well educated in the ways of Western management – and all of us face the need to find quality workers who can meet our needs, which is not a simple task in such a high-demand environment.

We've been at it in the Middle East for nearly 20 years now and have become accustomed to the everyday challenges of working in the region. As you'll see in the accompanying photographs and brief descriptions, these are cutting-edge projects that reflect not only our focus on developing a strong regional team, but also a common quest to accommodate ancient needs in new and inspiring ways.











# **Waterfront Wonders**

The Al Kout Mall (Fahaheel, Kuwait) is part of a huge waterfront development on the Persian Gulf. The developers at Tamdeen Real Estate commissioned Crystal Fountains to design and supply both indoor and outdoor watershapes.

Inside the mall, four interior waterwall features flank the escalators, with aerated water running over heavily textured rock surfaces to bring a relaxing, oasis-like atmosphere to these areas.

Outside, the central fountains are located in an artificial lagoon (approximately 1,000 feet long by 165 feet wide) that opens onto a marina. The jet system spans more than 800 feet, with main fountain displays climbing more than 30 feet into the air and a central jet rising to almost 150 feet. (Given the dimensions of the pool, the base is a light blue/green to keep the water a bit cooler as a means of reducing evaporation.)

These exterior fountains are a focal point day and night, with music, lighting and choreography provided by our own computer-control technology. In all, the program array includes three animated daytime shows and nine musical evening shows that feature tunes by a local composer.

In addition to the main lagoon and fountain, we also created a pool about 160 feet wide and 80 feet long with a 130-foot-long overflow detail that sends a laminar sheet of water down about four feet. An additional feature with a total of 40 jets is arranged in five rows to create programmable water arches reflecting the forms of the bridge crossing the main lagoon beyond. The detailing of the pool creates additional visual links leading visitors to the upper pool that's part of the main lagoon.

-M.D.



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 76.

# POND CATALOG

#### Circle 135 on Reader Service Card



AQUASCAPE has published a contractor-only catalog. The 52-page, full color booklet starts by defining the pond ecosystem and offering information on the company's approach to installation. It then covers complete pond systems and the full range of components, from underlayments, liners, pumps, aerators and biofilters to waterfalls, lighting, water treatments and installation tools. **Aquascape**, St. Charles, IL.

# STONE EDGING

#### Circle 136 on Reader Service Card

OLY-OLA EDGINGS offers Stone-Edg, an edge-restraint system designed specifically for use with architectural stone in landscaping projects. Measuring 1-inch high by 2-1/4-inches wide with a wall thickness of 3/16 inches, the "L" shaped, black-



vinyl product installs flush against the outside of the stone to simplify straight and radius installations using a variety of stone types. **Oly-Ola Edgings**, Villa Park, IL.

## **OUTDOOR-KITCHEN GUIDE**

#### Circle 137 on Reader Service Card



DANVER has published a guide to planning outdoor kitchens. The 16-page booklet offers an informative discussion of design possibilities, then defines configurations of cabinets supplied by the company before providing step-by-step details on arranging

cabinets, selecting countertops and adding various design features to complete unusual installations. The guide also includes layout grids. **Danver**, Wallingford, CT.

# COPING SUPPORT

#### Circle 138 on Reader Service Card

CARDINAL POOL SYSTEMS has introduced a system to support coping stones and pavers on vinyl-liner swimming pools. Using support bracing and a flange extension, the system forms a tray into which



concrete is poured. This provides a 10-inch base for attaching stone coping or pavers – and it's poured with the collar, so there's no need for additional concrete deliveries. **Cardinal Pool Systems**, Schuylkill Haven, PA.

# **In-Grade Lights**

### Circle 139 on Reader Service Card



HYDREL has introduced the M9000 series of in-grade landscape fixtures. Designed for superior lumen maintenance and optimized energy performance, the three monochromatic LED products in the line have modular designs and unique flow-through technology that enables moisture and air to pass through and run out the bottom of the con-

tainer, eliminating the need for a watertight shell. **Hydrel**, Sylmar, CA.

# POND/POOL FOUNTAINS

#### Circle 140 on Reader Service Card

TOBA FOUNTAINS offers a line of Magic fountains for residential ponds and pools. The self-contained, remote-controlled devices have 16 light- and water-display patterns built in, but the four spray patterns can be set at various heights up to ten feet, effectively giving homeowners more than 150 programming options. There are also two lighting packs, each with four color options. **Toba Fountains**, Fountain Valley, CA.



# CHEMICAL CONTROLLER

#### Circle 141 on Reader Service Card



ACU-TROL PROGRAMMABLE CONTROLLERS has introduced its model AK110, a microprocessor-based device designed to monitor and control chemicals in pool and spa water — everything from pH and ORP to temperature. It features proportional and acid/base feed, has a built-in flow-

switch and sampling port and offers 30-day recording at two-hour intervals. **Acu-Trol Programmable Controllers**, Auburn, CA.

# CARTRIDGE FILTERS

#### Circle 142 on Reader Service Card

ASTRALPOOL has launched the Z-Tech line of single-element cartridge filters. Featuring a unique design that allows for three water-return configurations, the units come with DuPont filter elements and easy-to-use lid systems. They also have automatic air-release valves as well as special pressure-release valves that prevent damage if internal ele-



ments become clogged or blocked. AstralPool, Jacksonville, FL.

# SKID-STEER LOADER

#### Circle 143 on Reader Service Card



BOBCAT has introduced the S100 skid-steer loader. The 1,000-pound-capacity unit features a spacious cab, an easy-to-read instrument panel and a transversely mounted engine in a frame small enough to access and work in tight jobsites – just 50

inches is all the access width needed. It weighs just over 2 tons and has a lift height of 8 feet, 6 inches for easy loading and dumping of debris and materials. **Bobcat**, West Fargo, ND.

# **ROCK/PLANT GRATES**

#### Circle 144 on Reader Service Card

EASYPRO POND PRODUCTS now offers rock/plant grates for use with its small, medium and large Aquafalls filters. The sturdy grates are designed to make it easy to cover the falls box with rocks and plants. The small model has an egg-crate-shaped material, while the



medium and large grates are an engineered structural-plastic material capable of holding several hundred pounds. **EasyPro Pond Products**, Grant, MI.

## FOUNTAIN KITS

#### Circle 145 on Reader Service Card



NATIONAL POOL TILE has introduced a line of fountain kits. These fully engineered packages feature preassembled sets of all mechanical components needed to drive the water effects; all that's needed on site is a bit of easy assembly. This leaves the designer or builder to select and install the

finish material, which can be anything from stucco to precut stone or tile. **National Pool Tile**, Anaheim, CA.

## **DECK-DRAIN SYSTEM**

## Circle 146 on Reader Service Card

QUAKER PLASTIC has introduced Deck-Drain-A-Way System II. Designed to move 17 percent more water than regular deck drains, the system is a full 3-1/2-inches high by 1-1/4-inches wide and comes in gray, white or tan. No deep trench-



es are required, and the system adapts to all standard 1-1/2-inch plastic fittings. It also serves as an expansion and contraction joint and a screed guide. **Quaker Plastic**, Mountville, PA.

Continued on page 82

# GENTLEMEN PREFER BRONZE (AND GENTLEWOMEN TOO)



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# ROBOTIC POOL CLEANER

#### Circle 147 on Reader Service Card



WATER TECH has introduced a commercialgrade, automatic, robotic pool cleaner: The Blue Pearl uses the latest technology in offering 1- to 3-hour variable cleaning cycles with super-climbing brushes that reach the toughest spots on pool walls. The unit is designed to clean even large pools in 2 hours

or less, works with an external timer and comes with an automatic safety shut-off. **Water Tech**, East Brunswick, NJ.

# SAND FILTERS

#### Circle 148 on Reader Service Card

PENTAIR WATER POOL & SPA has introduced ClearPro sand filtration technology. Designed to offer enhanced filter performance while retaining the low maintenance and simplicity for which sand filters are known, the device delivers 60 percent cleaner water than common sand filters by using a porous tube that creates a final barrier for particles that sand alone cannot stop. **Pentair Water Pool & Spa**, Sanford, NC.



#### POND SKIMMERS

#### Circle 149 on Reader Service Card



EMPEROR AQUATICS offers AquaFoam Protein Skimmers. Designed for use in closed recirculating systems, the device features a unique Dual Venturi Manifold that allows for precise air/ozone injection adjustments to be made independent from one another, thus maximizing overall efficiency. It also has a special Vessel-Waste Collector flange to provide a dependable, watertight seal. Emperor Aquatics, Pottstown, PA.

# **POOL SURROUNDS**

#### Circle 150 on Reader Service Card

HADDONSTONE USA offers a variety of cast-stone surrounds for fountains. Designed for use in gardens of any style from classic to modern,



all the products need is the addition of a centerpiece fountain to complete the package. They come in full- or half-round configurations in a variety of sizes, colors and finishes and are available in circular, quatrefoil and octagonal shapes. **Haddonstone USA**, Bellmawr, NJ.



Circle 74 on Postage Free Card

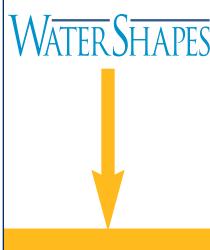
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## SEMI-TRANSPARENT CONCRETE STAINS

#### Circle 151 on Reader Service Card



SEAL-KRETE has introduced new Concrete Colors semi-transparent stains for concrete surfaces. Available in four pre-mixed colors with a tint base and a clear low-luster sealer, the system allows for development of 30 colors with base tinting. The products extend the life of vertical or horizontal concrete surfaces,

resist stains, oil, salt and chloride and penetrate deep into porous concrete surfaces. **Seal-Krete**, St. Louis, MO.

# CRIB-WALL SYSTEMS

#### **Circle 152 on Reader Service Card**

TIMBERGRID offers environmentally friendly retaining walls and sound barriers. Produced from wood originating in sustainable forests, the timbers feature a preservative treatment that meets rigid health standards and can be used in structures ranging from simple land-



scape walls to major, engineered retaining structures. The walls also assemble quickly and can be planted – no geogrid required. TimberGrid, Weston, MO.

# Artificial Rock Panels

#### Circle 153 on Reader Service Card



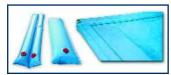
SYNTHETIC ROCK SOLUTIONS has introduced an easy-to-install, interlocking system design for its line of artificial rock panels and products. The sturdy, high-quality faux rock is available in brick, limestone,

fieldstone, river rock and stacked-stone (as well as custom) patterns. The new mounting system simplifies installation of the panels, which have the look and feel of real stone. **Synthetic Rock Solutions**, Sheridan, OR.

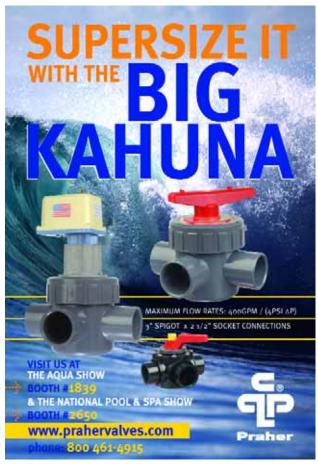
# **WINTER COVERS**

#### Circle 154 on Reader Service Card

PEN FABRICATORS offers two types of winter covers for pools: a traditional over-the-deck cover that fits all pools; and a custom snap-in cover designed specifically for vinyl-lin-



er pools. The over-the-deck option features 20-mil vinyl water bags that follow the outer edge of the cover. The custom-fit, snap-in cover has a bead that snaps into a track around a pool's perimeter. **Pen Fabricators**, Emigsville, PA. Continued on page 84



Circle 66 on Postage Free Card



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## PRODUCT/SERVICE LITERATURE

#### Circle 155 on Reader Service Card



PONDS, POOLS & FOUNTAINS CORP. offers literature on its capabilities in the realms of ponds, pools and fountains. The company offers full lines of aquatic equipment and supplies – including aerators that pro-

vide water-quality solutions for ponds and lakes while eliminating algae and enhancing beauty – and has a staff on hand to help create customized aquatic systems. **Ponds**, **Pools & Fountains Corp.**, Indianapolis, IN.

# **CERAMIC TILE**

#### Circle 156 on Reader Service Card

TOPANGA ART TILE offers custom, handmade porcelain tiles fired with hand-painted glazes using a variety of techniques including raised-line designs and/or images. Often used in unique, highly detailed murals brought to life with bright colors and detailed textures, the tiles come in a wide range of styles and can be used in and out of the water in a range of indoor and outdoor settings. **Topanga Art Tile**, Topanga, CA.



# FIRE-FEATURE BOWLS

# Circle 157 on Reader Service Card



GRAND EFFECTS offers bowls for use in automated or manually ignited fire features. The looks range from the classic to the sleek and modern – including the Essex, a 48-inch diameter, 15-inch high bowl that's available in five

finishes: burnt terracotta, Greek, khaki, dark walnut and limestone. Each model interfaces with remote-control systems and features flame-monitoring technology. **Grand Effects**, Mission Viejo, CA.

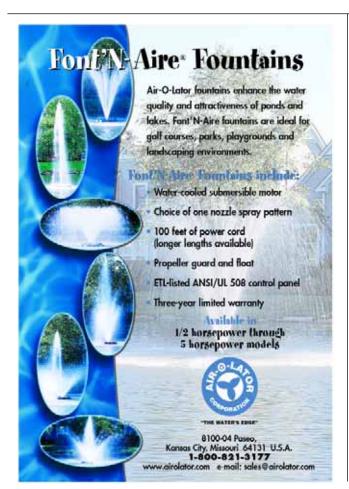
## **LED POOL LIGHTS**

#### Circle 158 on Reader Service Card

O'RYAN INDUSTRIES offers the PoolStar line of LED lighting packages for pools. This includes PoolStar 1000, a small, 2-1/2-inch dry-niche system that comes complete and ready to install. Designed to illuminate areas up



to 100 feet away, this model features a Starburst 28S LED bulb that is capable of being synchronized with any other S-series LED models in the company's line. **O'Ryan Industries**, Vancouver, WA.







## PLAY FEATURES

#### Circle 159 on Reader Service Card



WHITEWATER WEST offers AquaSpray activity elements for use in park settings, including the AS-3500 Power Cannon – a waterfeature designed for use by older children that has quick-opening valves actuated by an easy-to-use trigger. All el-

ements in the line have bright colors, attractive forms and an emphasis on fun while serving as individual fountains or in total waterplay systems. **Whitewater West**, Richmond, British Columbia, Canada.

### SALT CHLORINATORS

#### Circle 160 on Reader Service Card

BALBOA DIRECT has introduced a family of salt chlorinators for a variety of applications – inground and aboveground pools, spas and waterfeatures as well as large commercial applications. The line includes the ECOmatic, the classic product for inground pools, as well as the ECOspa; the ECOfountain for waterfeatures up to 5,000 gallons;



and the ECOcomm for commercial facilities. Balboa Direct. Tustin. CA.

#### TILE MOSAICS

#### Circle 161 on Reader Service Card



OCEANSIDE GLASSTILE has introduced the Geologie line of handcrafted tiles. Inspired by rock formations often found glittering with crystals, the new series of glass-and-slate mosaics combines luminous, gem-like glass with richly hued, naturally textured slates in a unique harmony of smooth and textured, reflective and matte finishes that lend intriguing effects to projects of all kinds. **Oceanside Glasstile**, Carlsbad, CA.

# FOUNTAIN CATALOG

#### Circle 162 on Reader Service Card

PEM FOUNTAINS has released the 2007 edition of its catalog. Covering special equipment and parts for waterfeatures, water displays and fountains, sections include information on water switches, jumping and laminar jets, spray-apron modules, screen jets and more. Highlighted new products include flow straighteners and flanges, stream jets, junction boxes and shallow niches. PEM Fountains, Richmond Hill, Ontario, Canada.





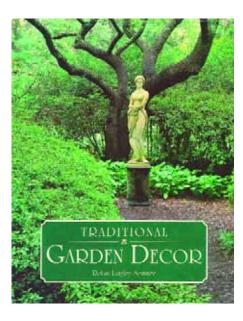




Circle 55 on Postage Free Card

By Mike Farley

# **Distinctive Touches**



do much of my work in the residential market, and it's increasingly common for my clients to have relatively small yards for which they want something both unique and special.

In those settings (and in larger ones as well, but often not as critically), I've found that it's the small touches that make the most difference. Frequently, it's these simple decorative elements that transform designs into unique compositions that reflect clients' personalities and gives their homes that special feeling.

Yes, you can create terrific swimming pools and other watershapes and include wonderful hardscape or shade structures and landscaping in any project, but especially in compact spaces, the character of those elements may not be fully expressed or realized until you add these finishing touches.

I recently found a wonderful book that shows a broad range of exactly those sorts of decorative elements. Entitled *Traditional Garden Decor* (Thunder Bay Press, 2001), this 260-page text by Robin Langley Sommer is beautifully illustrated and demonstrates just how exciting some of the simplest things can be no matter the style or the form of the specific decorative touch being applied.

She breaks the treatment of garden décor down into six sections that combine topics in, to be honest, some slightly nonsensical ways. But that flaw aside, Sommer presents one of the most encompassing treatments of the topic I've ever seen.

The first section deals with planters and trellises and includes familiar items such as pots and raised planters as well as some unusual ones, such as farm wagons and wheelbarrows. As is the case in all six sections, the styles here range from classic and modern to whimsical, including details drawn from the English

and Japanese garden styles.

The next chapter combines a discussion of garden furniture and lighting. With the former, she goes beyond patio and deck furniture to define how benches, chairs and tables can be placed strategically throughout a garden to create destinations. With the latter, the coverage is fairly thin and refers mainly to showier fixtures such as bollards and lanterns.

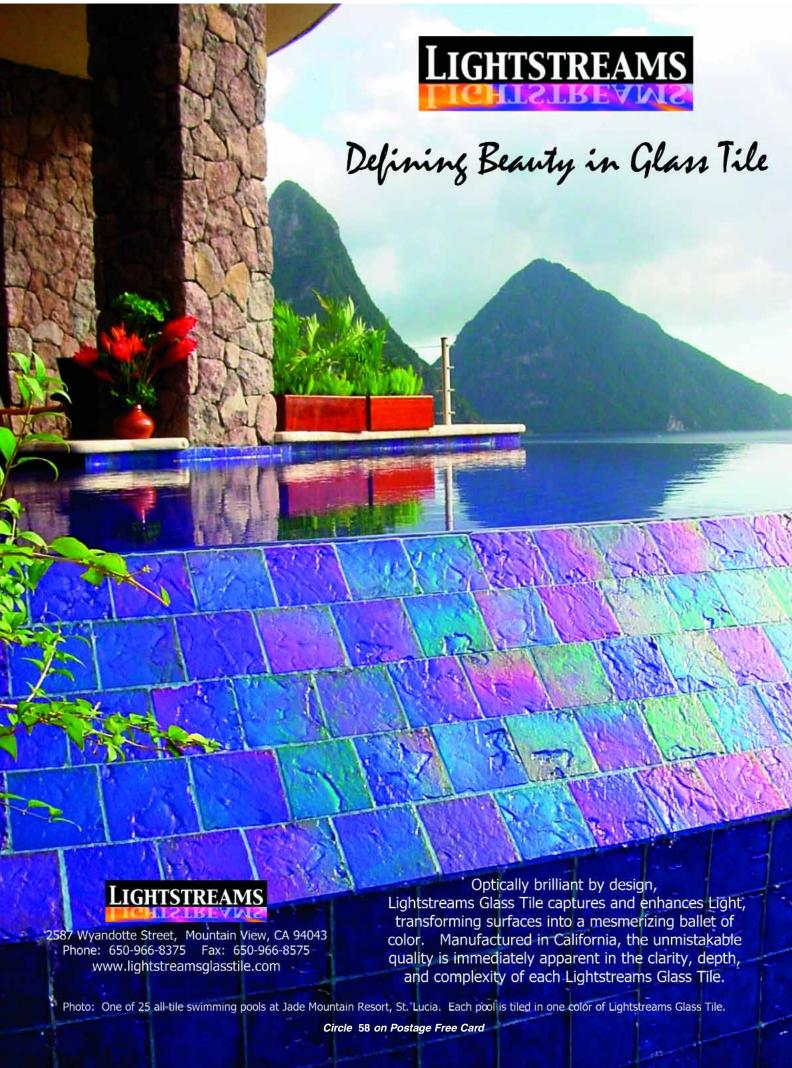
The third section is about pathways and borders. Here, she explores some interesting path treatments that go well beyond stone and concrete to include gravel, decomposed granite and even grassy pathways. (Personally, I've always liked using grass as an interesting twist on conventional pathway materials.)

She follows this with a treatment of sculpture and waterfeatures. This might seem a shopworn pairing, but she spices things up with some interesting uses of bronze and stone sculpture as well as birdbaths and Japanese-style waterfeatures. Then she moves on to shelters and sanctuaries, a category in which she includes several familiar structures such as gazebos and pavilions along with some surprises, including bird sanctuaries.

Finally, she delves into folk art and found objects, which folds things back around to the unusual uses of farm implements in the first section and adds in appealing applications of discarded irrigation materials. All in all, she makes a persuasive case for seeing these items as potential sculptural elements.

With its broad coverage and odd range of styles and objects, Sommer provides us with a terrific idea book for which I'll find many uses as my clients and I discuss ways of decorating spaces from small to grand and try to define key finishing touches that will give these projects personalities all their own.

**Mike Farley** is a landscape architect with more than 20 years of experience and is currently a designer/project manager for Claffey Pools in Southlake, Texas. A graduate of Genesis 3s 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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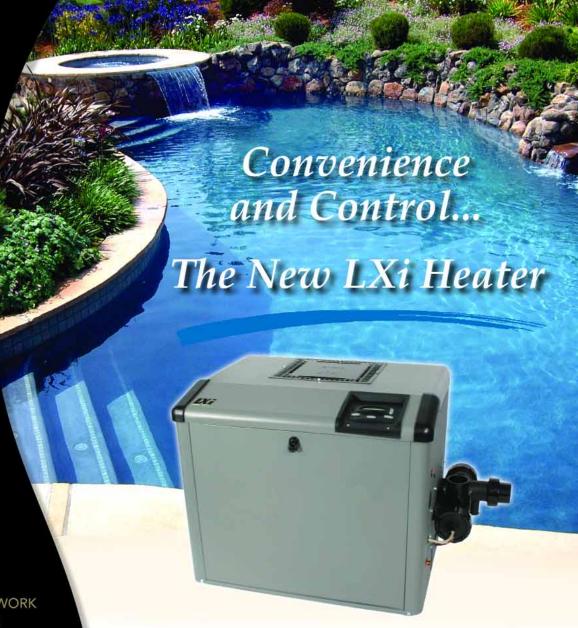


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