

Inside: David Tisherman on Using Glass Tile

WATER SHAPES

Design • Engineering • Construction

Volume 6
Number 4
April 2004
\$5.00

Fluid Assets

A corporate campus keeps staff needs in mind

Spirited Sojourns

Client inclinations and the watershaping arts

PLUS:
A landscape artist's celebrations in granite and water

CRYSTAL WATER

POOL & SPA FILTERS

Get the best...Get the Waterway Crystal Water D.E or Cartridge Filter, for the tops in performance with proven low-cost maintenance. Designed and built for years of trouble free service, Crystal Water Filters provide excellent filtration and longer cleaning cycles.

Water filters are only as good as the filter systems inside. Waterway Crystal Water Filters use the very finest materials...whether it's the cartridge or the D.E. (Diatomaceous Earth).

Manufactured to the very highest standards, with 2½" internal piping, the largest in the industry and our multi-handle design (Love-handles). Simply put...the filter removes the maximum amount of contaminant's, giving you the cleanest and clearest water with the longest time between cleaning cycles. When you do have to, cleaning is a snap, remove the top, take out the internals, hose them off and that's all there is to it!

Some Crystal Water Features:

- ▶ 2½" Internal piping (largest in the industry) minimizes restrictions and improves water flow.
- ▶ Four-cartridge design or curved vertical grids give maximum filter surface area for more dirt capture, simplifies element removal and both extend the time between cleaning cycles.
- ▶ State-of-the-art internal design provides greater and more efficient filtration.
- ▶ Chemical resistant fiberglass reinforced polypropylene tank for exceptional strength and long life.
- ▶ "Multi-Handle" lid design makes removing the lid easier and safer.
- ▶ Heavy-duty tamper-proof clamp with removal tool.
- ▶ 2" bottom clean-out port.
- ▶ 10-year warranty on filter body.
See warranty for details.



2200 East Sturgis Road, Oxnard, CA 93030 • (805) 981-0262 • FAX: 805/981/9403 • Toll Free FAX: 888/772/5387
www.waterwayplastics.com • E-mail: waterway@waterwayplastics.com



AQUAMATIC COVER SYSTEMS

Exclusive Manufacturer of the **HYDRAMATIC**
Hydraulic Swimming Pool Safety Cover



The HydraMatic Automatic Safety Cover, the industry's leading swimming pool cover



The HydraLux™, our most advanced cover



The EZCover™, the world's easiest manual pool cover

ADVANTAGES AND BENEFITS

WATERPROOF

Drive mechanism is fully submersible, no longer are drains a problem nor does recess flooding mean an expensive electric motor replacement.

SAFETY

No electrics near the pool for greater safety. All electric power and switches are remote at the equipment pad, also means fewer problems with inspections.

POWER

Hydraulics deliver more power, yet dial in only as much as needed to operate the cover. Virtually all pool configurations can now be covered; what before was a limitation is now the norm.

FAILSAFE

Pressure relief valves gently stop the cover if it meets an obstruction, instead of breaking a mechanical shear pin linkage that needs to be replaced before the operation.

DURABILITY

Hydraulics are widely used in heavy equipment. The unique patented duo-motor HydraMatic System eliminates mechanical linkage and clutches to change cover direction and motion of the cover. It has the least number of parts of any other automatic pool cover system, yet has the full range of safety and convenience features. Originally designed for Commercial Application.

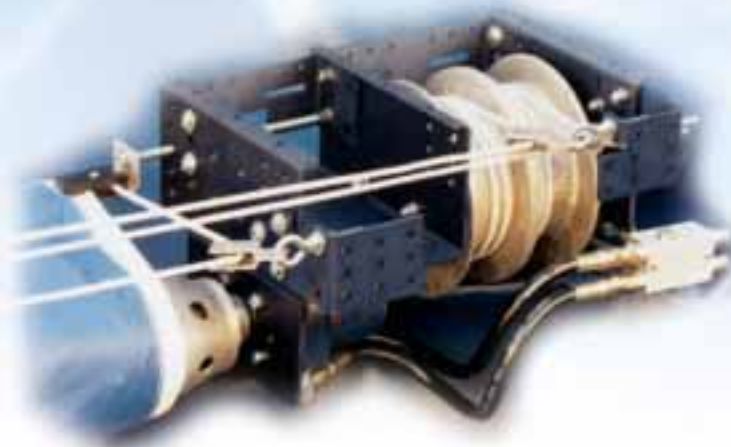
LIMIT SWITCHES

Elegant in its simplicity, the end of travel of the cover at each end of the pool is controlled by pressure relief valves.

WARRANTY

The HydraMatic cover system comes with a twenty year limited warranty on the mechanism and a seven-year limited warranty on the fabric. For additional warranty information, call your Aquamatic representative.

HydraMatic and EZCover™ exceed ASTM F1346-91 standards.
HydraLux™ is not a safety cover.



200 Mayock Road, Gilroy, CA 95020
800.262.4044 • Fax: 800.600.7087
408.846.9274 • Fax: 408.846.1060
www.aquamatic.com

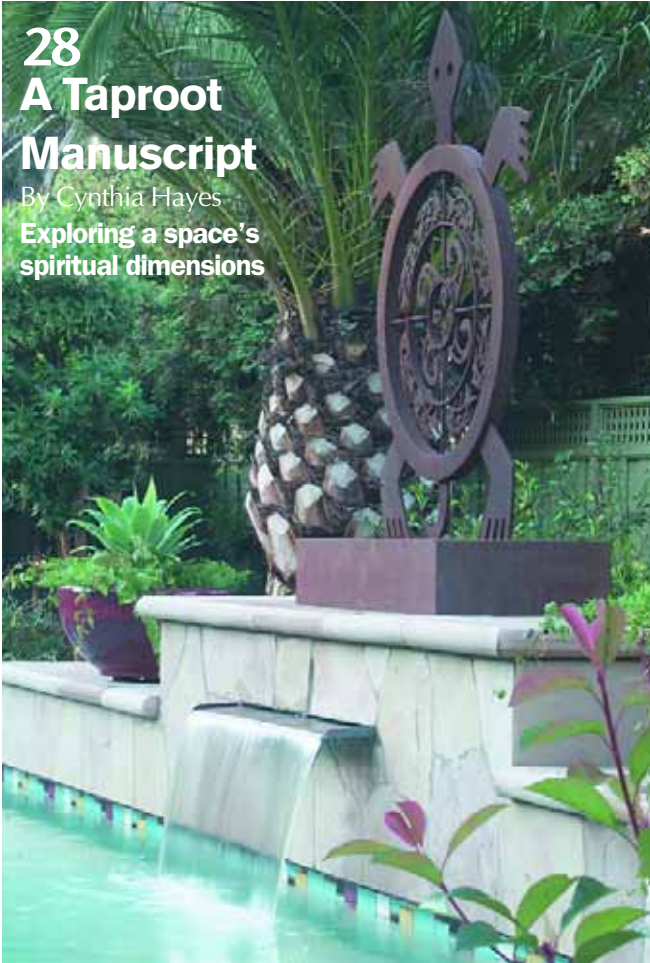


April

features

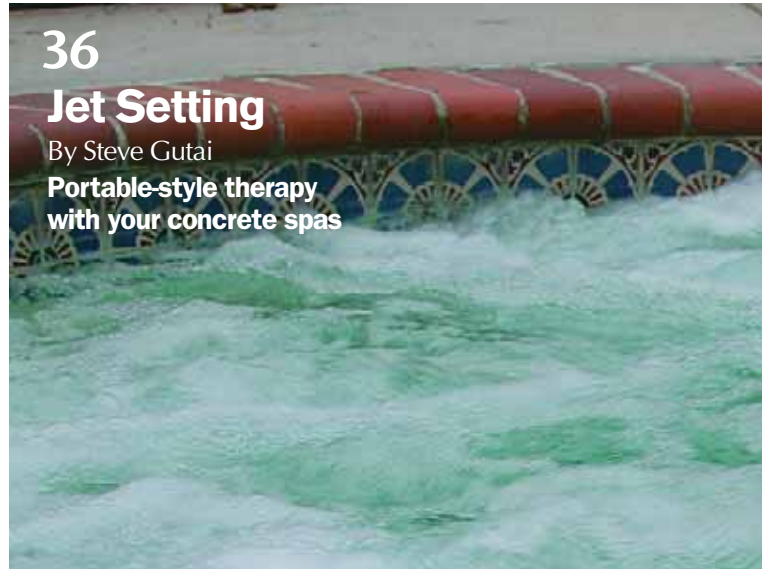
28 A Taproot Manuscript

By Cynthia Hayes
Exploring a space's
spiritual dimensions



36 Jet Setting

By Steve Gutai
Portable-style therapy
with your concrete spas



40 Clearwater Credence

By George Forni
Maintaining clarity at
a huge corporate facility



columns

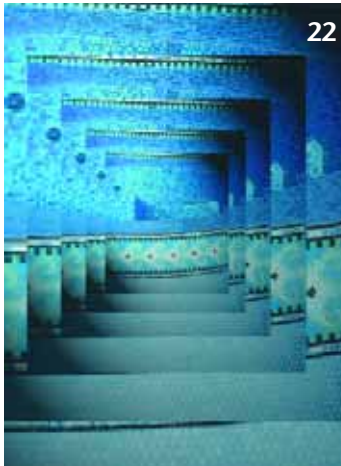


48 On Sails of Stone

By Frederick L. Gregory
Water, granite
and intuitive artistry



10



22

6 Structures

By Eric Herman

**Reflections on
a client's character**

10 Aqua Culture

By Brian Van Bower

**Developing approaches
to top-flight watershapes**

18 Natural Companions

By Stephanie Rose

**Taking steps to
do the right thing**

22 Detail #37

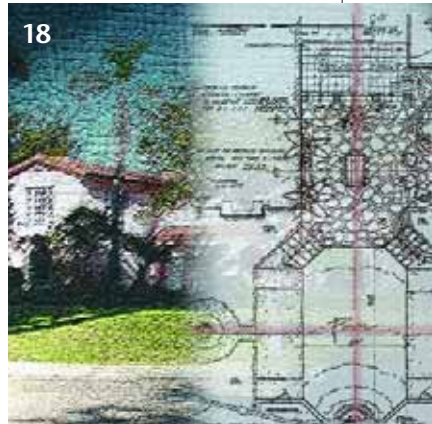
By David Tisherman

**Working through
the all-tile process**

66 Book Notes

By Mike Farley

**The practical art
of site evaluation**



18

departments

8 In This Issue

58 Advertiser Index

58 Of Interest Index

60 Of Interest



On the cover:

Photo by John Ramez, Aquatic Environments, Danville, Calif., courtesy Pentair Pool Products, Sanford, N.C.

WATERSHAPES (ISSN 1522-6581) is published monthly by McCloskey Communications, Inc. 6119 Lockhurst Dr., Woodland Hills, CA 91367. A controlled circulation publication, *WaterShapes* is distributed without charge to qualified subscribers. Non-qualified subscription rates in the U.S., \$30 per year; Canada and Mexico \$48 per year; all other countries \$64 per year, payable in U.S. funds. Single copies \$10 per issue in the U.S. and Canada. All other countries \$15 per issue. Subscription requests must include name, job title, business location, address information and a signature and date.

POSTMASTER: Send address changes to *WaterShapes*, P.O. Box 1216, Lowell, MA 01853-9930. Periodicals postage rates paid at Woodland Hills, CA 91365 and additional mailing offices.

By Eric Herman

Sympathetic Connections

One of the themes that weaves its way through a great many of the articles and columns we've run in *WaterShapes* through the years turns on the thought that watershape design draws inspiration and direction not just from the parameters of the setting and the budget, but also from the desires, personalities and characters of the clients.

What's tricky about this concept is that looking to clients for inspiration often involves setting aside your own preferences, inclinations, experience and tastes when it comes to organizing and decorating spaces. In fact, the design process is quite different when you subordinate your own vision and engage yourself in an exercise of empathizing with clients while using your bag of tricks to amplify their ideas and harmonize with their wish lists.

Sometimes, this give and take happens naturally and easily, while in other situations it is hard-won ground requiring constant give and take and even the stirring of strong emotions. I've talked with some of you who have walked away from projects because the separation between the points of view of client and watershaper is so broad that a meeting of the minds is impossible. More often, you've shared accounts of projects in which the foreseeable result is so far from your vision of what is right for the job that it's all you can do to wrap up the process as painlessly as possible, then move on.

Much more desirable, of course, are those situations where the tastes of the clients and the designer dovetail neatly and the result is a collaboration driven by harmony and inspiration. On page 28 of this issue, for example, you'll find one of the most explicit cases I've ever seen in which a vision has been shared by clients and designer (see "A Taproot Manuscript," by northern California landscape architect Cynthia Hayes).

In the project profiled in Hayes' descriptive account, she worked with a couple who had an interest in celebrating their family's Native American roots while showcasing an extensive collection of Indian and Mexican artwork. A person of Native American background herself, Hayes was inspired on both professional and personal levels to do her utmost in vesting the space with everything her clients wanted of her.

From the color palette and materials to the hardscape and plants, her work on this project shows just how thoughtful and client-sensitive a process watershape and landscape design can be. The result is a space that blends a range of textures, colors and cultural icons that exist for one purpose only: to make the clients comfortable and happy.

As we were preparing this story for print, I was inspired by Hayes' passion for Native American culture and somewhat envious of her clients' sense of connection to their ethnic heritage and desire to project it onto their surroundings in every way possible. It reminded me that each of us has a history that is worth exploring and celebrating on some level.

One of the most fantastic things about the art of watershaping is that it occasionally affords its practitioners the opportunity, as it has for Cynthia Hayes, to act as stewards and caretakers for the riches that reside in the hearts and minds of those who seek to surround themselves with the beauty of plant life, stone, artwork and water.

Eric Herman

Editor

Eric Herman — 714.449-1996

Associate Editor

Melissa Anderson Burress — 818.715-9776

Contributing Editors

Brian Van Bower David Tisherman
Stephanie Rose Rick Anderson

Art Director

Rick Leddy

Production Manager

Robin Wilzbach — 818.783-3821

Circulation Manager

Simone Sanoian — 818.715-9776

National Sales Manager

Camma Barsily — 310.979-0335

Publisher

James McCloskey — 818.715-9776

Publishing Office

McCloskey Communications, Inc.

P.O. Box 306

Woodland Hills, CA 91365

Tel: 818.715-9776 • Fax: 818.715-9059

e-mail: main@watershapes.com

website: www.watershapes.com

© Entire contents copyright 2004. No portion of this publication may be reproduced in any form without written permission of the publisher. Views expressed by the bylined contributors should not be construed as reflecting the opinion of this publication. Publication of product/service information should not be deemed as a recommendation by the publisher.

Printed in the U.S.A.



We make them easy, you make them unique



Custom BBQ Islands to suit any taste!

You can now create the ideal BBQ island for any customer, without the expense and drawbacks of intensive labor, partial shipments and heavy equipment. With our pre-fabricated modular units, almost anything is possible!

Assembly is fast and easy – just one person can off-load, assemble and finish a basic unit in less than a day. Everything ships together – from the grill, sink, and stereo to the tile, stucco or stone – and all pieces can be hand-carried.

Call (888) 411-TILE for information and start heating up your profits today!



• Anaheim, CA • Sacramento, CA • Livermore, CA • San Diego, CA • Tempe, AZ • Las Vegas, NV • Dallas, TX
• Houston, TX • Longwood, FL • Naples, FL • Pompano Beach, FL • Sarasota, FL • Norcross, GA • Hatfield, PA

888-411-TILE

ational
Pool Tile Group
POOL AND SPA TILE IMPORTERS/DISTRIBUTORS
www.nptgonline.com

Circle 4 on Postage Free Card

Cynthia Hayes is owner and principal designer for Mozaic, a landscape-design firm established in 1991 and now located in Sunol, Calif. She received her Master's in Landscape Design from the Conway School of Landscape Design in Conway, Mass. Much of her work is on residential projects, and some has been featured on tours and in publications – including a project that won a “Best in the West” award from *Sunset* in 1999. She has completed projects in settings from Berkeley, Sacramento and Palm Springs in California to Washington, Colorado and New Hampshire, to name a few, and has worked singly and collaboratively on master plans for large public projects. She enjoys working with contractors during the installation process and pursues a de-

sign process that aims to respect the site as a third party, encouraging clients to find peace and connections to nature within their own properties. She can be reached at cyn@mozaicdesign.com.

Steve Gutai is product manager for pumps, filters and valves with Jandy/Laars Products, a division of WaterPik Technologies of Petaluma, Calif. Gutai is a veteran of the swimming pool industry, having spent more than 13 years as an independent service and repair technician and subcontractor in the Los Angeles area. He spent three more years as a technical service manager and outside sales representative for Waterway Plastics in Oxnard, Calif. Gutai joined Laars & Jandy in 2000 and now works directly with contractors and engineers in design-

DESIGNING A POND?

Now You Can Do It Right – The **FIRST** Time!

- System design to your requirements
- Residential, commercial and municipal systems
- Innovative, energy efficient designs

POND PROBLEMS?

Ideal Water Quality – Without the Maintenance

- AQUACUBE® Systems for **maintenance free** aeration, circulation and biological filtration
- Perma-Beads™ to **replace sand** in any sand filter for superb water quality without clogging
- UV Sterilizers, Swirl Separators and many other **state-of-the-art components**

Service
Free System Design

Experience
Since 1984

Simplicity
Maintenance Free Systems

ADVANCED AQUACULTURE SYSTEMS, INC.



4509 Hickory Creek Lane • Brandon, FL 33511
Phone (813) 653-2823 • Fax (813) 684-7773
www.advancedaquaculture.com/landscape

Circle 6 on Postage Free Card

ing circulation systems for pools, spas and other watershapes. He teaches hydraulics at trade shows throughout the United States and is the featured hydraulics instructor for Genesis 3's Level 1 schools.

George Forni is president of Aquatic Environments, an Alamo, Calif.-based design, installation and service firm specializing in lakes, ponds and other large waterfeatures. He started his career in the waste- and reclaimed-water industry in the mid 1980s. Before long, he became project manager for an aquatic service firm, for which he managed a number of projects in conjunction with the U.S. Army Corps of Engineers as well as in other regulatory agency-controlled jobs. His company now focuses mostly on the

needs of large commercial clients in the Western United States.

Frederick L. Gregory is a sculptor and landscape artist with more than 35 years' experience in working with elements of nature—granite, wind and water—as he has pursued an artistic aim he describes as “the hand of man in harmony with nature.” Based in Carmel Valley, Calif., Gregory's work is featured at the Hawthorne Gallery in Big Sur, where his granite and steel sculptures have built a widespread following. Throughout his career, he has participated in landscape creation and design in such contrasting settings and cultures as California, Japan and Brazil. He has also written extensively about landscape design and sculpture and is a published poet.



FORNI



GREGORY



Waterbase Elastomeric Waterproof Membrane

**Blue Is For You,
Because Black
Cracks!**








Note: Always refer to packaging label for proper mixing and application instructions.

Method of application:
Roll, Brush or Spray.

MULASTICOAT

For most of your waterproofing needs!

For your nearest distributor call: (877)685-8426 or visit www.multicoat.com

Fountains

Ponds

Below Grade

Shower pans

Planters

And More...



Circle 84 on Postage Free Card

By Brian Van Bower

Operating on a Higher Level



Over and over at seminars and trade shows, watershapers ask me three distinct but interrelated questions: “How do you get into the high-end market?”, “How do you deal with wealthy customers?” and “How do you handle those kinds of jobs?”

The short answer to all of them is that I’ve set myself up for it and am prepared to tackle these projects and clients as they come. To me, it’s as natural as breathing.

The deeper answer is much more complicated, obviously, and has to do with my understanding that working with upper echelon clients means accommodating an entire range of issues that cut to the very core of how I do business.

Let’s dig in here and take a look at that range of issues with an eye toward establishing relationships at the highest levels of the market – and along the way defining principles of client relationships that have a role in watershaping at every level.

no fear

As I’ve mentioned many times before in this column, my approach all flows from *attitude*.

People I know in the watershaping trades have no trouble at all relating to working-class people, but they tend to freeze when they encounter people of wealth or fame or power.

Let’s begin with one of my main axioms for life as well as business: I don’t look up or down at anyone. I’ve learned through the years that the people who seem the happiest and most successful appreciate people who toil in the fields as much as they do the local neurosurgeon. They appreciate the hard work that others do because they don’t want to do it themselves. They also appreciate the craftsmanship they witness in those who have it.

I’m pretty much that way myself. Having come originally from the pool-service business, I respect the person who does a quality job of digging trenches as much as I do the person who has achieved a great enough level of economic prosperity to be able to hire a whole bunch of trench diggers. But where people I know in the watershaping trades have no trouble at all relating to working-class people, they tend to freeze when they encounter people of wealth or fame or power.

Avoiding that freeze is why, through the years, I’ve worked hard at learning to relate to people who lead lifestyles that are beyond the comprehension of some of us mere mortals. It’s not unusual to find it tough to understand the way rich people think. After all, we’re taught in this society that rich or famous or powerful people are “special” and that we should regard them with awe. It’s not that I don’t respect my wealthy clients or appreciate their sometimes dizzying levels of success, but I’m not awed by them to the point where I’d think there’s no way to bridge the gap between my world and theirs.

Yes, it’s easy to be intimidated by those who’ve reached for the stars and actually grabbed a couple of them. We do live in a materialistic society, and it sets up unequal relationships – financial, educational and social – between people who, for whatever reason, are in need of working with each other.

Continued on page 12

“We Are Roman Fountains, *America’s Fountain Experts!*”

**“America’s Most Trusted Name In
Architectural Fountains for Over 40 Years!”**



Roman Fountains is insured by Lloyds of London for
“Design & Technical Professional Liability Coverage” and we are ISO 9001-2000 Compliant.

“We Deliver the *Products* and the *Expertise* to Make Your Fountain Work!”

**Ask us About
RF/XPRESS!^{S.M.}**

**The
“Quick Quote/Quick Ship”
Advantage!**



1-800-794-1801
www.romanfountains.com

P.O. Drawer 10190 • Albuquerque, New Mexico 87184 • USA

I'm not pretending to be a sociologist here. I'm simply pointing out the fact that we are raised to think about successful people in certain ways – and those thought patterns need some retooling if you expect to cross over social barriers and work effectively and efficiently with our society's elite.

learning curve

I didn't start out with an innate understanding of these relationships: I first came to realize that I was a victim of a sort of "accept the difference" mentality in the early days of running my service firm.

We had a multi-millionaire client who lived in a beautiful estate so grand that there was a separate service entrance. My staff and I always used the service entrance – naturally enough, since that was its intended purpose. No big deal: Every time I showed up at the property, for whatever reason, I always used the service entrance, and this was true when I was arriving to pick up a check or to dis-

cuss some specific service issue with the client himself.

This went on for several years without question, but then one day the client told me it would be more appropriate if I came to the front door. It seemed a minor distinction at the time, but it represented a turning point in the way the client thought about me and what I thought of the client. Since then, I've come to appreciate that one of the most difficult aspects of working with upper-end clients is that you need to see them eye to eye and to some extent that you need to be able to think the way they do.

As I've moved deliberately toward these clients in my career as a designer and consultant, I've worked hard to place myself in their mindset and give myself the tools required to step into their shoes when I work with them on projects. To be sure, there are some of these ladies and gentlemen into whose shoes I am reluctant to insert my feet, but I find that thinking in this way enables me to do a better job

of meeting their expectations when the opportunity presents itself.

Basically, I don't want to get trapped in my own thought patterns and operate based solely on my own standards, values and experiences. I see this as limiting my ability to relate. Instead, I work with the fact that even the rich and famous and powerful are human beings like anyone else and seek out people who are similar to them in certain respects, whether it's economic status, level of education or a simple understanding of their realm of experience.

Obviously, the *extremely* wealthy or famous or powerful among us have unique lifestyles beyond our reach, and I don't mean to suggest that you should be dishonest about your own lot in life for the sake of making inroads with the upper crust. Frankly, this "strategy" is almost always transparent and doomed to failure.

What I *do* mean is that we need to equip ourselves with frames of references that cross over into their realm so



Recreonics
INC. Your Aquatic Authority

Specializing in Commercial Projects

Swimming Pool Equipment Distributor

Submit Your Plans or Your Equipment List Today for a **One-Stop Equipment Proposal** including required *Architect Submittal Packages*

Save Time – Save Money
Let Our Commercial Project Staff Do the Work
— You Make the Profit —

Representing Quality Manufacturers

- Paragon
- ITT Marlow
- Signet
- Stark
- Chemtrol
- RayPak
- Duraflex
- S.R. Smith
- Chemtainer
- Paco Pumps
- Mermade
- Pentair

– and many others –

Call Our Commercial Project Division at 888-428-7771 for details!

Circle 120 on Postage Free Card

we can conjure comfort levels that work both ways.

common ground

Your purpose in interacting with high-end clients naturally focuses on water-shapes and exterior settings, so the first, best place to seek commonality with these clients is in your own appreciation for excellence when it comes to product and job performance.

This is another lesson I learned in my service business (in which I dealt with a great many wealthy clients) and extended from the challenge I faced in getting my staff to appreciate the fact that the people they were working with were accustomed to having everything go their way. That was difficult with a staff of mostly young people who were struggling just to get by, but I had to get them to appreciate the way our clients thought for them to be able to provide service on par with high expectations.

I found myself in a constant process of changing my employees' mindset and getting them to work beyond any sense of minimum standards. What we were after was a sense of the need to maximize the quality of what we did. Simply put, we were pursuing a strategy that said quality and excellence offered the surest path to the common ground we wanted to establish with our clients – at every social level, not just the rich ones.

That said, however, the ability to relate to very high-end clients also involves frames of reference that are outside the watershaping industry and the services we typically perform. On some level, that means knowing a thing or two about the fine arts, for example, or about automobiles, architecture, interior furnishing and the like. Yes, excellence speaks volumes, but to me, forming good relationships with high-end clients is also about reaching beyond our own paradigms and moving things up a couple of notches.

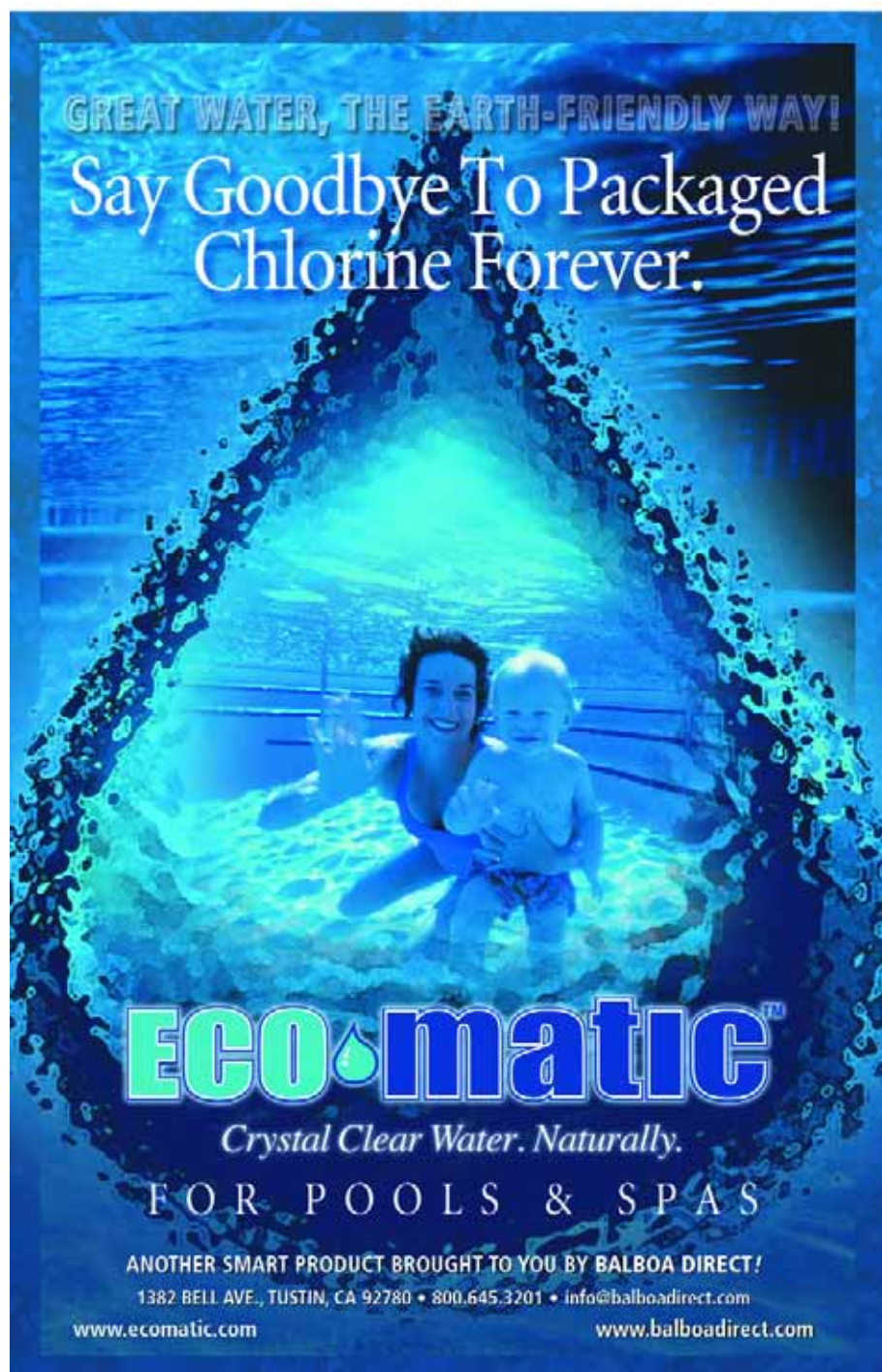
I don't think you need to know all there is to know about every upscale thing: Just pick out a couple of areas you appreciate and try to be knowledgeable enough about them that when you meet with these clients, you can express an appreciation for some of the finer things in life with which they tend

to surround themselves.

A couple years back, I wrote about the value of understanding the good life and don't particularly want to repeat myself here. Suffice it to say that people of means often actively seek the good life and express it in an infinite number of ways. Few of us would think of chartering a jet to fly to Switzerland for the weekend, but you

don't have to be a passenger on the plane to appreciate fine wine or good food (two of my favorites) or the thrill of travel, the beauty of art, the rush of deep-sea fishing or the intensity of participating in an auction.

Being fortunate enough to experience some of these things won't necessarily spoil you when it comes to more com-



GREAT WATER, THE EARTH-FRIENDLY WAY!

Say Goodbye To Packaged Chlorine Forever.

ECO-matic™

Crystal Clear Water. Naturally.

FOR POOLS & SPAS

ANOTHER SMART PRODUCT BROUGHT TO YOU BY BALBOA DIRECT!

1382 BELL AVE., TUSTIN, CA 92780 • 800.645.3201 • info@balboadirect.com

www.ecomatic.com www.balboadirect.com

Circle 99 on Postage Free Card

mon pleasures, but they will show you that there are many levels of enjoyment to be sought.

It's also another example of the way knowledge is power: By knowing art history, for example, not only will you be more comfortable talking with clients about their tastes, but you'll also improve your ability to design projects worthy of being called "art." Knowledge can give you the confidence you need to move in such a direction.

project by project

All of the knowledge in the world is wasted, however, if you're unable to perform at the promised level of excellence. It cuts back to the initial idea that you should always strive to exceed expectations, and nowhere is this truer than with wealthy clients. For myself, I work to under-promise and over-deliver and, more important, to exceed my *own* expectations for quality.

I've also found it helpful to break this

down and think in terms of exceeding expectations in the process by which the end product is created *and* in the end product itself.

Clients who can have whatever they want (and have it done by most anyone) will naturally have high expectations for both the process and the end product. Starting with the process, for example, success has everything to do with the way you communicate. That can mean simple things such as sending personal thank-you notes, keeping clients informed, returning phone calls and, in general, being responsive to client questions and concerns.

I write this knowing full well how easy it is with big projects to get excited, over-commit and unwittingly create false expectations for performance. That's a classic problem – and something that many of us who've worked at this level have had to learn the hard way. When a project comes with a high price tag, resist the urge to make unreasonable

promises about performance – particularly those having to do with time frames. Rest assured that, if you do, clients will hold you to your word and too often you'll find yourself locked into a commitment you can't meet.

It's far better to stand your ground and be realistic and open with the client about what they can expect. If you can improve on those promises and over-deliver, that's fantastic – but it's not wise to count on being able to do things faster and better than you normally would just because the bottom of the contract holds a bigger number than you're accustomed to seeing.

At times, you may need to look the client in the eye and say you can't deliver in the expected time frame or say "no" about some other issue, but I've found that these clients usually respect you for being truthful and letting them know what's going on. This is certainly preferable to having to come back after the fact and make up an excuse for the fact that



New Complete Trucks Available

MACALITE EQUIPMENT, INC. 4510 EAST KERBY AVE. • PHOENIX, AZ. 85040 • (877) MACALITE

- Specializing in Pool Plastering Equipment • Plaster Hose • Nozzles
- Easy Flow Nozzles for Pebble Applications • Fittings • Trowels, Etc.
- Manufacturer of Hydra-Flow Plaster Mixers, (Left or Right Dump)
- Distributor For Excalibur and Putzmeister Plaster Pumps
- Parts and Service for All Plaster Pumps and Mixers



Circle 63 on Postage Free Card

you've failed to meet a commitment you made in the excitement of the moment.

As a practical step, I take notes on projects as I converse with clients so that I can remember what I said. Sometimes, people will forget, and if you can't specifically reference the conversation during which a particular subject was discussed, you can find yourself at odds over a detail that would otherwise be a non-issue.

changes are good

The reason you need to be realistic, open and honest in working with high-end clients is because the one thing that you can count on with complex, higher-profile projects – without fail – is that they are subject to change without notice. In my role as a design consultant, I've had many conversations with contractors who've been caught up short by this, and it's my observation that those who fare best under these conditions are those who can take things in stride.

What's so basic to me, it seems, isn't all that obvious to some of these contractors. At times, I feel like I'm holding up flash cards that say, "Yes, there will be changes," or "You should charge for these changes" or, most important and in the biggest, brightest letters, "You should make a profit on those changes."

That's the beauty of high-end clients compared to those at lower levels: Each time a change comes up – and they always do – you have an opportunity to make more money on a project. Better still, it often means that you'll be building or designing a more involved and exciting project instead of just an expensive one.

If I had to underline one single point in this entire discussion, it would be this: It is absolutely essential to approach high-end work with the mindset that there will be changes, and those changes will occur throughout the entire course of the project. If you're not one who copes well with making adjustments mid-stream, then high-end work is not for you. It's really that simple.

Lots of people shy away from jobs that present lots of changes, basically because there are risks: Until you figure out ways to cope with change orders, it's very easy to respond too quickly and under-price a change. That may not seem like a big

deal on a large project with a healthy profit margin, but the fact is that all those small concessions add up quickly, and your margin can disappear before you're done.

You need to think proposed changes through completely, taking into account the fact that new orders affect scheduling for the project at hand as well as your oth-

er projects and can leave costly gaps that aren't easy to fill. Perhaps you've already purchased equipment or materials, for example, and the change order means that you have to return certain things and acquire new ones. That costs time and money.

You needn't necessarily explain all the ramifications to your client, but you do

AWARD WINNING DESIGNS ARE EASY WHEN YOU HAVE THE RIGHT TOOLS... STEGMEIER WALL CAPS & STEP LINERS

- Cast on site
- Flexible
- Versatile
- Economical
- Easy to install



Stegmeier Corporation's Wall Caps and Step Liners transform simple pool decks into an intricate part of the architectural design. These versatile foam forms are available in many profiles and at an affordable cost. Contact us and we will show you how.

STEGMEIER CORPORATION 

1111 W. Harris Rd., Arlington, TX 76001
800-382-5430 • (FAX) 800-356-3602
www.stegmeier.com

need to run through the permutations in your own mind and price the work accordingly and fairly. But if the client truly wants to know why the cost for a change is as high as it is, you need to be sincere and honest in explaining the whys and wherefores.

Again, it's all about managing expectations and positioning yourself whenever

possible to exceed them. It also boils down to maintaining a conviction that your work exemplifies the highest standards: If you can't do that, lots of these clients will chew you up; if you can and you deliver a product that the client appreciates more than he or she ever expected, then your telling the truth about what's going on only works to your benefit.

quality at hand

One last thing I've been observing among my highest-end clients has to do with what they're willing to accept by way of formal presentations having to do with a project.

These days, many of these people are purchasing their homes from great distances away using tools such as virtual reality tours that walk them through spaces using three-dimensional graphics. If you're going to pursue these people as clients, you have to accept the fact that their graphic expectations are higher than ever before and that a flat plan or simple drawing is not going to cut it.

Whether you prepare hand renderings or work with a quality CAD program, you must be prepared to back up your words with strong visuals—and on a much higher level than was acceptable even a few years ago. Whether you subcontract the work, learn to do it yourself or put someone on staff to prepare the drawings, you need to understand that these visuals *must* reflect the quality of the end product. Otherwise, clients won't "see" things the way you want them to, communication about your ideas will become difficult and chances are better than good that someone who makes a better presentation will get the nod.

If anything, presentation skills are the new frontier in watershaping. It takes time and money to get up to speed, but you need to get yourself there if you want a fair crack at the high-end market. Partly, it's about separating yourself from the crowd. To a greater extent, however, it's about conveying a message about quality that is clear to one and all with the very first steps in the water-shaping process.

Within any profession, people perform at different levels. Some stand at the leading edge, gain big reputations and are among the first called whenever a client begins to look around. To compete at this level, you must strive to play the game as it is played by water-shaping's best practitioners, develop your skills and gain a reputation for excellence that makes you stand out among peers.

As you strive, you need to figure out what it takes to get everything done and,

EXCALIBUR
By Spray Force

Pumps up to 500 feet of material hose, and up to 400 sacks per day!
Excalibur will also handle mixtures for artificial rock formations!

S-1 Mobile POWERMIX 1010 Left-Hand Dump
Hydraulically-Operated Mixer
Large Steel Mixing Bowl
Cast Steel Paddles That Mix Faster And Splash Less

EXCALIBUR PUMP
Heavy-Duty Pump with 3-3/4" Cylinders Designed Especially To Handle Pool Plaster And Pebble Finishes, Sand And Cement Mixtures

Take Advantage of Your \$100,000 Tax Deduction On Our New Equipment!

SPRAY FORCE Truck Rig

Spray Force MFG, Inc.
Phone: 1-800-824-8490
FAX: (559) 291-3345

SPRAYFORCE.COM

J GLOVER SINCE 1968
Spray Force Dealer
1-800-223-4422
glover-mfg.com

Since 1968, the best contractors have chosen Spray Force because we manufacture the finest, most powerful, productive, and longest lasting spray equipment on Earth.

Ask about our Lease To Own Program! Parts and Service Available.

SPRAY FORCE - CLEARLY THE LEADER

Circle 35 on Postage Free Card

as important, figure out what to charge for the work. You need to make enough on these projects to justify your time, deal with the level of difficulty and make certain you can deliver everything you've promised while navigating a sea of change orders.

These projects are indeed complicated, they do take time (more than they should in many cases) and they do involve clients who want things to go their way, so price your work accordingly so that you'll be inclined to come back and do it again, either for the current client or for someone else.

bringing it home

One of the unexpected benefits I've noticed from working with high-end clients has to do with the way it has affected my mindset when it comes to working on less complicated projects.

When you approach each and every project you do with the idea that you will exceed expectations with quality performance and excellent results, you'll find positives in every project you pursue, even the modest ones. There's also the fact that I keep running into projects that started with a budget of, say, \$50,000, that ended up growing to twice or three times that limit because I work in a way that opens clients' eyes and minds to possibilities they'd never considered.

In fact, I think it's fair to say that the "high-end sensibility" discussed here translates beautifully to work on mid-range watershapes: Mid-range clients respond to respectful treatment in much the same way rich folks do and enjoy working with someone who comes to the process more concerned with quality and excellence than with the price tag alone. **WS**

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



Splashpad®

Contact us at 1-888-5Vortex (586-7839)
or visit us on the web at www.vortex-intl.com

VORTEX

Circle 100 on Postage Free Card

By Stephanie Rose

Design Decisions



I was hired recently to work on a substantial restoration project in a prominent Los Angeles neighborhood. I'd worked previously with the architect on a large estate, and he had referred me to the homeowners. After a couple of meetings, we determined we were all a good fit, and I was hired to design the exterior spaces of the home in collaboration with the architect, the contractor and the decorator.

About a month into the project, the interior decorator was let go in favor of a restoration specialist. By that time, it was clear that many of the design decisions being made were not in keeping with the home's classic Spanish architecture and thus needed to be redirected.

As the design phase continued, I also began to sense that many of the original recommendations for the exterior offered by the architect had the same problem. What we started with were presumptions based on his own design aesthetic – ideas that didn't seem to reflect the homeowner's explicit desire to stay close to historic design principles whenever possible, as well as her desire to accommodate the needs of her two young sons. Many of those early decisions were practical and had been based strictly on the usability of the small backyard space, site topography and the city's zoning and setback requirements.

The homeowner told me directly that every time she looked at the pool chalked out on the side of the house, she had the desire to drag it over to the other side of the yard. As I listened, I recognized that I needed to become her advocate.

finding the right path

In his original plans, the architect had tucked the swimming pool on the side of the house, and it had always felt awkward and, ultimately, just plain wrong to me. Our collaborative meetings, which included the homeowner, the architect, the contractor, the interior decorator and me, typically ended discussions of the pool with, "But this is the only place we can put the pool."

This never satisfied me, so I studied the topographical maps and suggested a number of solutions, only to be told, "That won't work." The implication was that, as a landscape designer, I was not the person best equipped to design the pool and hardscape areas. Still, I felt that I was the only one who was truly listening to the homeowner and the only design professional on the job who was completely unsettled by existing design decisions. I wanted to do better.

At one meeting, the homeowner told me directly that every time she looked at the pool chalked out on the side of the house, she had the desire to drag it over to the other side of the yard. As I listened, I recognized that I needed to become her advocate and play the role of the bad guy on the design team. I told her at the time that I would become a thorn in everyone's side until someone told me a final decision had been made and that this was the way it was going to be.

I also recognized that I needed ammunition, so I picked up my stack of back issues of *WaterShapes* and started doing some homework. Before long, I decided to call two "pool guys" whose work, as seen in the magazine, seemed to suit the situation I was facing. A call to the magazine's editor gave me additional information about the two of them, along with

pertinent contact information.

Before a week had passed, I'd met with both of them and gathered as much of an education as I could about what they do.

The first fellow I met with mainly builds pools. My presumption going in was that everyone who built high-end pools was likely to know how to design them – not necessarily true, as I discovered. He had an impressive resume, Genesis 3 Design School experience and was clearly at the top of his game. But, he informed me, design was not his strong suit. He could tell me about the expansive qualities of the soil, when to build and how to build, he said, but if I needed design advice – particularly *historical* design advice – he was not the best person for the job. More than anything, I appreciated his honesty.

My next meeting was with a man who, before we met, had no idea that all of the projects he'd published in *WaterShapes* had given him something of a reputation as an expert in Spanish-style architecture. We met on site, and I showed Mark Holden what was planned and offered my own thoughts in the matter. He listened to everything I told him about the homeowners and their "needs" and "wants" lists, and then it was my turn to listen and gain an education about historical restorations and classic architecture.

He began explaining the principles of the Islamic architecture that had such a strong influence on design sensibilities in Spain – and of how those principles had been exported to and modified in the New World as the Spanish Colonial style. He talked about the importance of the axis in this style and how important elements of a setting were set up on a perpendicular grid.

In this context, Mark was able to show me how, from a historical perspective, there was a "proper" place for every hard-scape feature in this particular yard, including the pool, and that every feature needed to have a purpose or lead you visually to another place. He also pointed out that this didn't mean that there was only one way to design the exterior space, but simply that there were ways to make everything work from a historical perspective that would tie the exterior together with the house.

making progress

I made an executive decision at that point and gave Mark the blueprints. I knew the homeowner would pay for a couple consulting hours and an initial concept, and I felt confident that Mark would eventually be hired to join the design team and would end up not charg-

ing for the consulting work once he became the contractor for the pool.

More important, by the time we were done I was convinced more than ever that I had to derail the architect's notions about what should happen in the backyard and where the pool should be placed. That in mind, I arranged to bring

Savio Takes You To The NEXT LEVEL

Step Up To

- Greater Performance
- Greater Satisfaction
- Greater Profits

"Since I started carrying Savio products, sales have increased, my profits have gone up and my customers are happy. I wish every product were like Savio."
- Rob Schum of H2O Designs

Savio Skimmerfilters™

- Macro Filtration
- Skimmer Filtration
- Bio Filtration
- UV Filtration

The NEW SAVIO Compact Skimmerfilter™
Available Spring 2004

SAVIO EXCELLENCE
Precision Engineered Solutions
To locate a distributor 1-888-333-2356

Savio Livingpods Waterfall Filters

2 Models:

- Instant 22" waterfall curtain
- Local or remote placement

www.savio.cc

Circle 86 on Postage Free Card

Mark to meet with the homeowner and have him explain to her, as he had to me, exactly what he thought about the yard – even if he wasn't to be hired to develop the final plan. I knew that once she heard his rationale and saw the depth of his understanding of this sort of project that she, too, would be sold on bringing him aboard.


Sure enough, one week later and after an hour-long conference call abbreviated by faxed visuals, the homeowner was convinced that there was a way to get what she wanted without having to shove the pool off to the side of the house. As of this writing, Mark has been contracted to design the exterior hardscape of the house in conjunction with my planting design. It is also clear to the entire project team – even the architect – that this decision has been the catalyst for pulling all of the design's loose ends into a neat bundle.

As much as I might have liked to have been completely responsible for the exterior design, I am more than a bit proud



The home has a classic Spanish Colonial look that fueled the homeowner's desire for a backyard and pool that made sense within that stylistic and historical context.

Innovative Aeration Technology. Only from Aqua Control.



THE POWER.

Only Aqua Control has the power to make something so important, look so beautiful.

For more than 30 years, Aqua Control has been delivering display aerators and fountains to the golfing, landscape, and property development industries. Manufactured with the highest of standards, aerators from Aqua Control are guaranteed to bring lasting beauty and healthy, effective solutions to the quality of your waterscapes.

Aqua Control brings You:

- 30 beautiful patterns
- 5 to 40 HP Titan Fountains
- Vertical and horizontal models for any depth over 40"
- Heights to 80 feet
- Variable frequency drive and light sequencing for dramatic effects day and night
- Wind sensors for spray control
- 3 year Warranty
- Brilliant lighting and UL Control Panels

Aqua Control
The Beautiful Water Quality Management System

UL US
UL Control Panels

1-800-377-0019 www.aquacontrol.com Email: info@aquacontrol.com

Circle 80 on Postage Free Card

WATER FEATURES

and much, much more. . .



From the elegant to the whimsical, Florentine Craftsmen, Inc. hand-crafts the finest garden ornaments, statuary, fountains, furniture and more. We only use quality materials including lead, bronze, aluminum and stone. Call or write for our 48-page illustrated catalog, or visit our web site, www.florentinecraftsmen.com.

FLORENTINE CRAFTSMEN, Inc.
46-24 28th St., Dept. WS
Long Island City, NY 11101
Phone 718-937-7632 • Fax 718-937-9858

Circle 108 on Postage Free Card

that I recognized my limitations and moved beyond them to get the help I needed. As I told the homeowner, it was more important for me not to make a penny on the hardscape design and have it done right, than to try and push my way through the project based on my design ideas or the architect's. If, at the end of the project, she looked at her yard and was dissatisfied with the outcome, wouldn't it ultimately reflect poorly on me and my design advice and abilities?

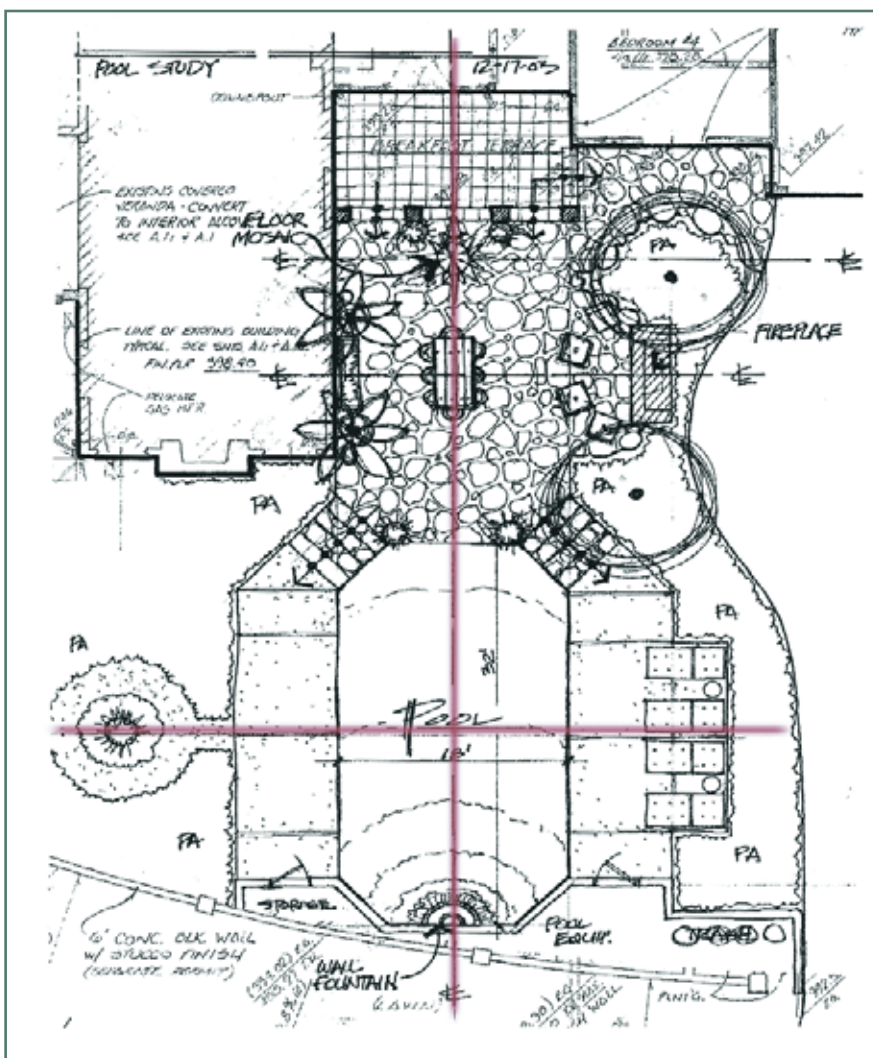
Here's what we landscape professionals can take from all this:

► **Know yourself.** As designers, we must know our limitations. I know I'm not well versed in every area of design and that collaboration – drawing on top people in allied professions – is one of the most valuable tools at my disposal. So be open to meeting new design professionals, sharing ideas and learning new things. (It's also a fact that collaborations can lead to lots of referrals – maybe the best marketing tool we have!)

► **Do your homework.** It always pays to research your design options. There are too many different approaches to getting things done in the watershaping trades, and it's not our job to know everything and how it's all done. That's why I recommend opening yourself to the wealth of information and resources available within the watershaping community.

► **Seek allies.** Don't settle for less than you need, and spend time finding the right person for the job. As I discovered in my two conversations with pool contractors, a pool person who can design may also be a competent pool builder, but it's also true that there are builders who can't design and designers who can't (or won't) build. So ask a lot of questions about previous work and by all means make calls to those who know these watershaping professionals to get their thoughts on who might be the best person for your particular project.

► **Read *WaterShapes*.** Don't just flip through each issue: Read the entire magazine. I know that we landscape professionals aren't generally fascinated by details of hydraulics or steel reinforcement or the other technical aspects of watershaping, but there is more to learn than just that. By



The plan keeps evolving, but the basic grid set up at Mark Holden's urging will always be the core around which the space will be organized as the process unfolds.

reading each issue, you learn to ask the right questions and, perhaps more important, gain access to the best watershapers in the world, right here at your disposal. Any of them can be contacted by e-mailing or calling the staff at *WaterShapes* – an unbelievable wealth of information.

► **Don't settle.** Never give in too quickly when you run into uncomfortable design situations. Had I sat back and accepted the architect's best take on the exterior design of this project, I would have had terrible regrets (although I might have learned a valuable lesson for the future). As we'll see in upcoming issues, it's worth it to be stubborn when the design of something just doesn't feel right.

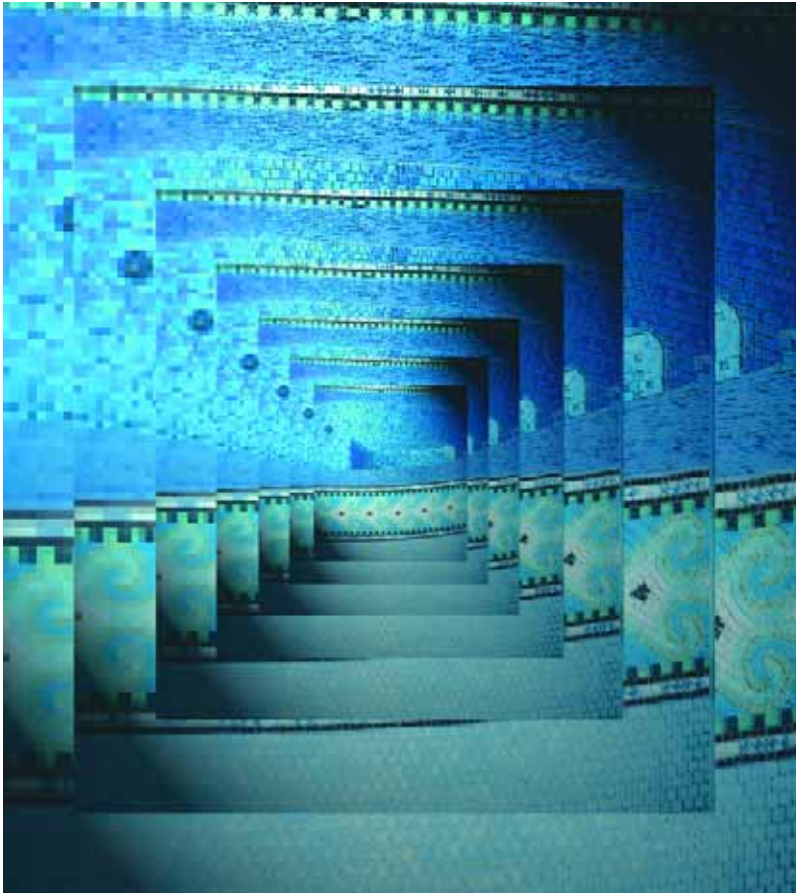
We've also had to make some difficult decisions regarding removal of large trees

on this property. The project is in an area well known for its trees, but it's not in a preservation zone, so the challenge is more emotional than practical. Still, it cuts to the heart of what historical restorations are all about – the subject of columns to come. **WS**

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

By David Tisherman

Glass Tasks



A great many wonderful things can be said about all-tile pool finishes once they're done, but you can't lose sight of the fact that such finishes require lots of planning, are difficult to apply and, as your clients will tell you, are far from inexpensive. And by "far from inexpensive," I mean that the price tag will usually give pause even to people of great means.

This is all especially true with *glass* tile, which is applied using different (and generally more complicated) techniques than is ceramic tile and costs proportionately more. But that cost brings with it a great and stunning beauty that can be well worth it.

My project in the Los Feliz area of Los Angeles is a case in point. For all of the creativity and ingenuity that went into pulling off the technical aspects of this renovation project, it will ultimately be the beautiful, imported glass tile the clients selected that will lend the greatest degree of visual definition and distinction to the work. And even though these clients knew from the start that this was the look they wanted, the cost of doing it right warranted careful consideration and planning in every step of the design and construction processes.

Glass tile is applied using different (and generally more complicated) techniques than ceramic tile and costs proportionately more — a price tag that usually gives pause even to people of great means.

sticking points

One of the big things with glass tile has to do with two schools of thought when it comes to the way the glass is bound into sheets that make up the mosaics. The first school endorses the use of a mesh background, while the second advocates use of what is known as the "blind-set" technique with paper-mounted tiles.

(There's also a third possibility that won't be discussed here: Some porcelain tiles — specifically those made by American Olean — come in squares held together with rubber dots between the tile pieces.)

I've worked with both systems with glass tile, and I've come through experience to prefer paper-covered, blind-set tile to mesh-mounted tile. Both systems certainly work, but because mounting tile to the substrate is a matter of adhesion, it seems to me that, with mesh-backed products, less of the surface of the back of the tile is available for adherence because the mesh, however fractionally, gets in the way. By contrast, with blind-set tile, the *entire* backside of the tile adheres to the substrate.

I've been in all sorts of discussions about this through the years, mainly with mesh-backed product suppliers who disagree with me, but I'll stand by my preference on this issue. I'll credit both sides, however, with making a big point that you need to use the manufacturer-recommended adhesive material, no matter the mounting method.

The challenge with blind-set tile is that applying it is far more time consuming than is applying mesh-backed tile. Of course, time is money, and there's also the fact that installing blind-set tile requires special expertise on the part of the tile setter — yet another cost factor.

But the results can be well worth the price. The basic process involves mounting tile as sheets on an adhesive bed (using only a product, such as Laticrete, recommended by the tile supplier), then soaking the paper that's attached to the front of the tile and removing it. At that point – and this is what I like most about this technique – each and every tile is adjusted and moved precisely into place by hand before the adhesive sets. (For a concise explanation of this process, see “Beads on Glass,” October 2003, page 56.)

This painstaking process of individual adjustment of the tiles can, in the right hands, produce incredibly beautiful results – and that's just what we wanted to see in revitalizing this classic Los Angeles pool.

As design discussions moved forward, I recommended a blind-set product from my friend Scott Fleming and the folks at Oceanside Glasstile of Carlsbad, Calif., but the clients opted instead for an Italian glass tile. The samples we'd seen were



The contours found in pools make application of all-tile finishes a challenge, basically because manufacturers prepare the material for easiest use on flat surfaces with squared corners.

New NeverLube® Backwash Valve

Jandy Innovation at its Best!

Positively the Best you can Buy

- NeverLube® technology on the diverter seal ensures it will never need lubrication and comes with a lifetime guarantee!
- 2-in-1 design works on both D.E. and sand filters.
- The straight-through full flow port design delivers optimal hydraulic flow.
- Jandy Versa-Coupler allows easy installation on most brands of filters.



NeverLube Backwash Valve Model 8034



(8034 shown), 8034J comes with pre-plumbed union kit for use on Jandy DEL48 and DEL60 filters



Jandy

Pumps • Filters • Laars Heaters • Air Energy Heat Pumps
Controls • Lights • Water Purification Systems • Valves
Water Features • Cleaners • Accessories

USA: 707.776.8200 • OUTSIDE USA: 905.844.3400 • www.jandy.com • info@jandy.com • ©2004 Water Pik Technologies, Inc.

Circle 22 on Postage Free Card

blind-set, but when our order finally arrived – following a two-month wait that stalled the project – some of the tile was mesh-mounted and some of it blind-set. Fortunately, the difference didn't give us problems beyond the fact that we had to work with two installation processes.

no pie slices

What makes glass tile such an expensive option for pools and spas has less to do with mounting techniques than it does with the fact that pools and spas tend to have lots of curvaceous surfaces.

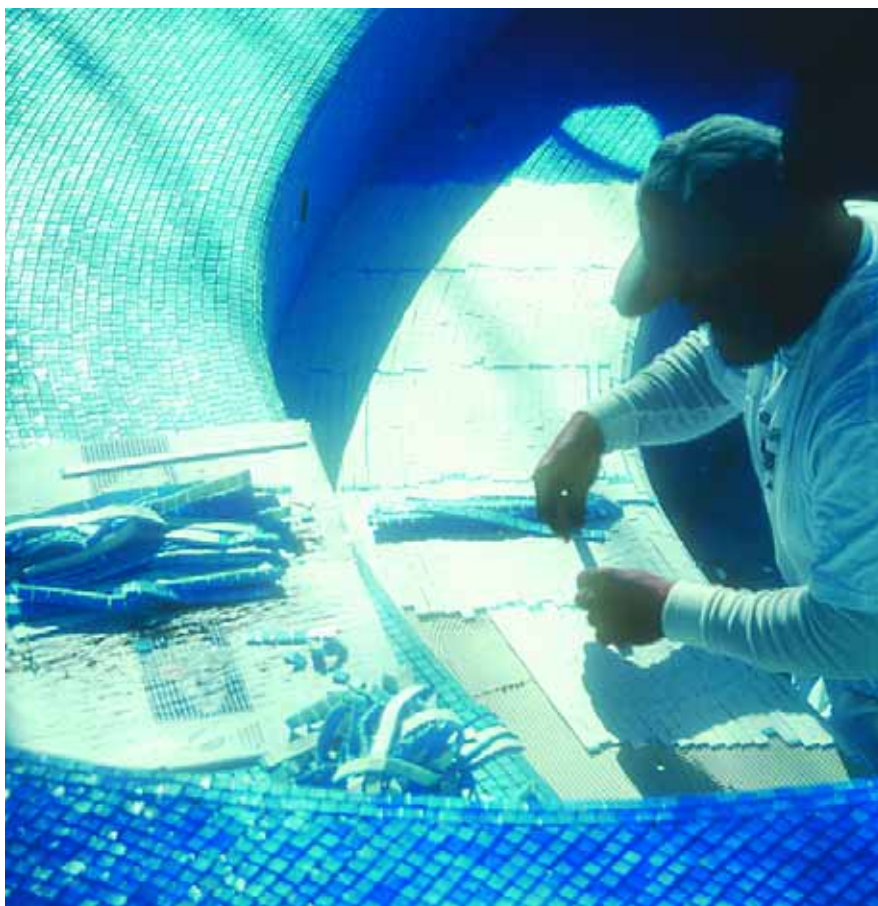
In the vast majority of general construction projects, glass tile is installed on flat surfaces with squared corners. The fact that we work with rounded steps and benches and radiused dam walls means we're installing tile pieces or sections with rectilinear shapes over curved areas. Under those circumstances, the simple fact is that it's easier to work with offset or "jog-jointed" tile sheets, no matter whether they come mesh-backed or ready to be blind-set.

Glass-tile samples invariably come in stack-mounted configurations, meaning that all of the grout joints line up. If you tried to use such a sheet on a curved surface, such as a step, fanning the tile would mean ever widening grout lines that will form pie-shaped spaces between the tiles. By working with offset sheet configurations, tile setters are able to work around radiuses much more easily, with only slightly splayed grout joints that disappear without visually disrupting the tile pattern.

The only other way to deal with radiuses would be to cut tiny, pie-shaped tiles – and the tile setter would be at it forever! Instead, by using jogged tile, the tile setter can cut the sheets or mesh and lay down single strips to allow for much greater refinement of the jogging pattern. This approach eliminates virtually all mistakes, and pie-shaped shaped grout joints become a non-factor.

(I've also seen those who use stacked tile sheets use tiles of smaller sizes to fill the widening grout gaps. To my eyes, this is a poor solution – and a dead giveaway that an awkward problem needed some sort of desperate solution.)

As I say, working in radiused spaces



The most visually satisfying approach to tiling curved steps involves a painstaking process of cutting the tile into strips, setting them into place and then, one by one, adjusting the tiles to maximize visual appeal and continuity.



NEW FOR 12VDC or 24 VDC

PEM 'M2' JUMPING JETS

Compact Jumping Jet with **Standard 10mm (0.393")** or **Optional 13mm (0.511")** Stream with internal illumination that is carried within the stream to the impact area (while the stream is connected to the jet). This jet assembly was created for in pond in indoor or outdoor installations. Operate with oversize flow rated Cartridge Filter(s)

With **16.0mm (0.653")** compression nozzle for **25mm (1.0")** Stream, designed to create a solid & highly visible stream, for in pond or out of pond installation with drain leading back into pond, this jet does not have flow sleeves and can digest up to 6mm, 0.250" solids

With **16.0mm (0.653")** compression nozzle for **25mm (1.0")** Stream designed to create a solid & highly visible stream, for in pond installations, this jet does not have flow straighteners and requires the addition of such in the supply pipe, it can digest up to 6mm, 0.250" solids. Only for use by professional fountain builders who had experience with PEM 132 & 133 Jumping Jet installations

With **13mm (0.511")** Stream or **Optional 16mm full laminar stream** with internal illumination that is carried within the stream to the impact area (while the stream is connected to the jet). This jet assembly was created for in pond installations into clean water. Operate with oversize flow rated Cartridge Filter(s)

With **12.9mm (0.500")** or **Optional 15.9 mm(0.625")** stream for **Vertical "Jump or Shooting Spray"**, for in pond installations, indoors or outdoors, it has internal illumination carried over the full height of the stream, while connected to the jet. This jet is recommended for music controlled spray effects. Operate with oversize flow rated Cartridge Filter(s).

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

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

ELECTRICAL REQUIREMENT OF EACH JET:

Type 1 - 12 VDC, 8.9A Inrush & 2.3A Holding. Type 2 - 24VDC, 7.0A Inrush & 1.9A Holding

ELECTRICAL REQUIREMENT OF INTERNAL STREAM ILLUMINATION (PEM 141, 142 & 143): 12VAC. 7.5A.

(Stream illumination to be controlled by flow switch to function only when jet(s) operating!)

SINGLE JET CONTROL (Supply & Output Voltages must be specified !)

(# 506 - 4831) PEM 'M2' Type Test Control for a single PEM M2 Type Jumping Jet Testing or Operation

All prewired in corrosion resistant, polycarbonate enclosure. 240V, 50 Hz 10A or 120V, 60 Hz, 12A

Voltage Output to jet assembly : **Type 1 - 12 VDC & 12 VAC (For Light). Type 2 - 24 VDC & 12 VAC (For Light).**

Control functions:

ON/OFF, TRAJECTORY TEST, MANUAL or AUTOMATIC JUMPING with LENGTH of ROD and INTERVAL ADJUSTMENT



PEM 125M2

3.5m-4.5m
12'-15'



PEM 132M2

4.0m -7.0m
13'-23'



PEM 133M2

4.0m -7.0m
13'-23'



PEM 141M2

3.5m-5.0m
12'-17'



PEM 142M2

1.5m-4.5m
5'-15'



PEM 143M2

4.0m -6.0m
13'-20'



PEM 144M2

4.0m -6.0m
13'-20'

PEM FOUNTAIN CO.

104 Newkirk Rd, Richmond Hill, ON., Canada, L4C 3G3 - Tel: 905-737-7264 or 800-387-3600

Fax: 905-884-8941 - E-mail: sales@pemfountain.ca - www.pemfountain.ca

Francis McCormack Stone Design

Ireland's Premier Specialist in Natural Irish Limestone

These unique natural blue-gray slabs and paving stones show the white markings of seashells, coral and diatoms set into the stone 300 million years ago.

- Thermal and hammer dressed slabs up to 24" x 30" x 2"
- Tumbled paving stones available in 4 x 4, 6 x 6, 8 x 8 (all 1 3/4" thick)



FRANCIS MCCORMACK STONE DESIGN
North Star Studios, 27 Drydock Avenue
Boston, MA 02210
617-737-7397 • Fax 617-737-7399
On the Web at www.francismccormack.com

Circle 77 on Postage Free Card



Uniwall® Stainless Steel Spas

Uniwall stainless steel whirlpools and spas are ideal for just about anywhere that the soothing effects of hot water in-motion are desirable. A Uniwall spa provides elegant beauty and years of trouble-free service with minimal upkeep and maintenance. Contact Natare today or visit www.natare.com to learn more.

Low-maintenance
Stain-resistant
Watertight
Durable
No delamination



Natare Corporation
5905 West 74th Street • Indianapolis, IN 46278
(800) 336-8828 • (317) 872-9998 fax
natare@natare.com • www.natare.com

Circle 1 on Postage Free Card

takes greater skill and more time on the part of the tile setter. It also means getting a tile supplier to send you tile in offset patterns, which usually means a special order – and more cost. All this is something that needs to be discussed with the client up front, because it adds a couple of dollars per square foot to the installed cost of the finish.

In my view, if I can't get a client to see the distinction between the stacked and offset products and they insist on saving a bit by ordering stacked rather than offset sheets, I generally do all I can to walk away from the tile option. In fact, I begin to talk up other finishes because I know what they want won't work. Tile costs too much and is too hard to install for me not to want it to look its very best.

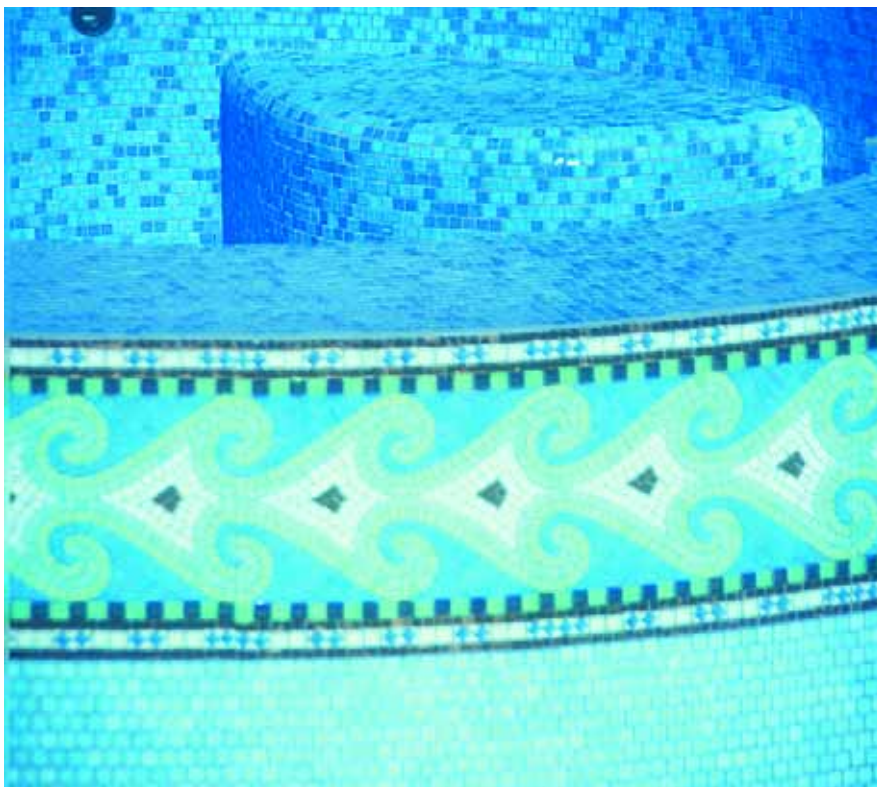
In the project at hand, the homeowners took a good bit of convincing. Fortunately, they finally came to appreciate the distinctions I was drawing between the two patterns, but I could see through their questions how difficult it was for them to see the big picture so early in the process.

ramifications

Of course, the selection of glass tile as a surface option has consequences that reach well beyond the way you order the product and set an installation price. In past columns, for example, I've discussed the importance of setting up perpendicular walls and floor joints for all-tile pools.

This is, obviously, easier to do if the vessel is new and you have control over the way it's being built. In new construction, it's all a matter of setting up the floor as a footing for the vertical walls – a more expensive way to go because it requires more steel, more concrete and greater skill on the part of subcontractors, but a good way to ensure a sharp, clean, elegant look for an all-tile pool. The squared corners create wonderful changes of plane that gives a beautiful "attitude" to the way the light plays on the surface of the tile.

In fact, in pools where there are no radiuses and floors and walls are all squared, you can easily go with a stacked tile and achieve great aesthetics. In the case of the renovation project we've been discussing, however, there were just a few squared surfaces, so we needed jogged joints to ac-



The classic, graceful contours of the pool are accented beautifully by the waterline mosaic band and by the offset, "jog-jointed" mounting of the field tile.

commodate, for example, the circular spa we added to the structure and the sweeping radiuses of the steps, the spa seats and the dam wall.

Tile color was also an issue. In this case, the clients were working with a color specialist who had helped them with interior and exterior decorating choices. Wanting to make a "statement" with the pool (as opposed to seeing it blend in with the earth tones of the house and the splendid trees that flanked the deck, which also would have been nice), they settled on a beautiful and visually striking periwinkle as the field tile to surround a set of mosaic details.

The spa is a deep periwinkle, while the pool has a lighter shade of the same color. At the waterline is a twelve-inch-deep, multi-colored mosaic pattern based roughly on a classic *fleur de lis*. Above that in what had been the pool's original scupper, we installed tile in a diamond pattern. (Rather than functioning as a component of the circulation system, the scupper is now a beautiful visual detail.)

Instead of using quarter rounds to cov-

er the edges of the steps in the shallow end of the pool, we shaped the edges with a broader, European-style bullnose over which we were able to install three tiles that follow the radius, further enhancing the visual unity of all the tile. This was possible because in this case we were working with very small tiles – a little more than half an inch square rather than full inches.

All of this had to be considered and laid out before we even began construction of the pool, which put a premium on communication with the clients about these issues from the very first stages of the process. As I mentioned at the outset, good outcomes with all-tile finishes take planning and care from Day One. **MS**

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



Oceanside Glasstile™






A Taproot Manuscript

Landscape designer Cynthia Hayes combines an empathy for nature with smart problem-solving and a passion for finding the spiritual dimension in a space as the starting point for her designs. For the project pictured here, she was challenged by clients who shared her values and wanted her to weave multiple styles, ethnic icons and disparate ecosystems together in a small yard filled with art, vibrant colors and various other features, including a lap pool.

By Cynthia Hayes

A decorative border composed of various colored squares and circles in shades of blue, yellow, and red, arranged in a grid-like pattern around the central text area.

From the start, it's been a project that has taken its direction from the art, spirit and cultural heritage of the clients and has always been much more to me than just another opportunity to design an attractive backyard and swimming pool.

I've always gravitated toward work that lets me treat spaces with a sense of spirituality and a respect for the energy and sanctity of nature that ultimately will resonate with clients beyond the purely visual and functional aspects of the design. Often, those qualities are expressed in subtle ways that I end up appreciating more than my clients, but in the case of the project seen here, there was a joy and ease to the work because the clients shared my sensibilities. As a result, the work encompasses a set of cultural, metaphorical and artistic overtones both bold and unreserved.

Their residence in Los Altos, Calif., is on a flat, one-third-acre suburban lot in a relatively unassuming (but affluent) neighborhood of large ranch homes on quiet streets. Even with a first impression, however, I knew this was not to be a typical project: The home stood out amid the staid landscapes with a colorfully chaotic rose garden out in front of a bright, terracotta-colored house with a large, Santa Fe-style covered porch filled with Mexican art and furnishings.

A multi-ethnic family of ample means, they were interested in finding places in the backyard for their growing collection of larger-than-life Native American sculptures and for various other expressions of the family's heritage and tastes.

Vision Quest

Being part Seminole, I felt a natural connection with their desires and an enthusiasm for helping to give expression to an often-overlooked culture. But they had a *long* wish list of ideas and features they wanted to include in the space — a setting that not only celebrated their various cultural roots, but also evoked memories of various settings they had enjoyed through the years.

So we set out together to create a sort of "spatial man-



The courtyard offers gracious access to the space beyond, with the elevated lap pool making its first impression as a seating area rather than as a watershape.

uscript” in the forms of sculpture, culture, plant material and water.

It was also apparent right from the start that these clients were in love with Native American and Mexican art. Their home featured walls dominated by brightly colored masks, Mexican folk art, Huichol Indian string paintings, original oil murals, dolls and Navajo rugs as well as rusted-iron sculptures set against bright stucco. A totem pole sat in the garage awaiting placement in the yard,

and the husband’s arms displayed traditional Native American art in the form of bold tattoos. I was drawn to and inspired by this exuberance of expression.

And they were more than simply “collectors.” The art celebrated the family’s eclectic mix of backgrounds: the husband from the Muckleshoot tribe of the Pacific Northwest, two adopted boys – one from the Lakota tribe, the other of Hualapai/African American descent – and the wife of European extraction.

Interestingly, she was perhaps the most passionate of all about wanting to find ways to express and find harmonies in the family’s cultural complexity – and about expressing her love of art and fond memories of time she and her family had spent in Hawaii.

The first thing we talked about was their outdoor art collection and their desire to put several sculptures on display. Many of these pieces were quite large (some up to eight feet tall), and most were by their friend, the artist Elwood Reynolds of Santa Fe, N.M. I was intrigued by the sculptures, especially one large turtle sculpture that I knew would eventually occupy a prominent place in the design.

As inspiring as the project was on a personal level, it was rather daunting on a practical one: Their punch list for the space – a meditation area, a sacred sweat lodge, a vegetable garden, shade areas, a barbeque, a fireplace, an outdoor show-



The homeowners had a lengthy wish list for a relatively small backyard space, including a ceremonial sweat lodge and places for a growing collection of sculptures.



coming spring 2004...
the all new
FyreFly Jet



www.watercrystalfountains.com

FOR THE MOST UP-TO-DATE INFORMATION

**TAKE YOUR POOL TO THE NEXT
LEVEL WITH WATERCRYSTAL®**

WaterCrystal effects add exciting visuals and sounds to pools and backyard features. They're created by one of the world's most accomplished water effects companies.

Crystal Fountains also offers a full line of commercial fountain products.

Check us out online for a full catalogue.

Crystal Fountains

International Water Feature Specialists

www.crystalfountains.com



er, a totem pole, a pool house and a lap pool – was considerable given its small size. Then there was the fact that we were discussing the inclusion of three exotic ecosystems – the forested Pacific Northwest, the Southwestern deserts and tropical Hawaii – along with features familiar in temperate, coastal Los Altos.

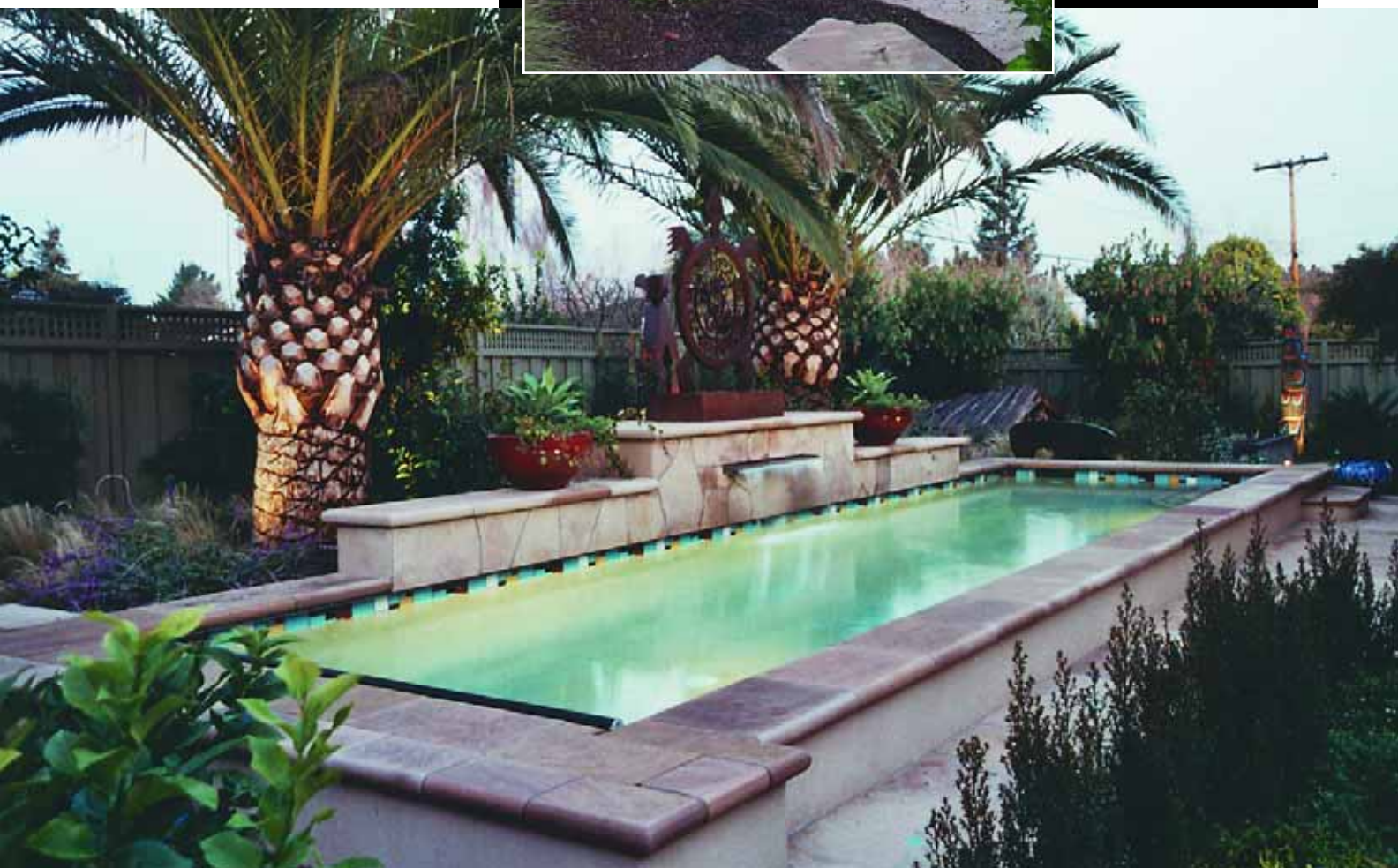
Creating Connections

At first, everything seemed to want to fly apart, and I'll concede that I was somewhat stumped when it came to visualizing a way to make it all work together.

For one thing, the earthen tones of a Native American style were more subtle than (and seemingly at odds with) the vivid, saturated colors of the Mexican artwork. For another, it was hard at first to conceptualize a lap pool evoking a Native American feel. To make things even more challenging, the canvas I'd been given kept changing: New large art



It was tough at first to visualize the lap pool as part of this landscape, but before long it took on its own thematic and artistic dimensions and is now at the core of the overall composition.



pieces would occasionally arrive and, even though I might have initially suggested it, I didn't expect them to add a two-story wing onto the house midway through landscape installation.

In all cases, however, solutions presented themselves. Even the addition to the house helped by enabling us to set up a central courtyard that not only pulled the design together, but also provided a way to separate spaces and put the pool house in an inconspicuous place.

Our historical, cultural, and stylistic research also pointed us in certain key directions. For example, we kept with a roughly rectilinear pattern along the cardinal points of the compass – very important in Native American tradition. The sweat lodge, for instance, needed to face due east for ceremonial reasons.

The rectilinear grid enabled us to split the space into smaller, distinct ecosystems that were unified visually by use of the sacred colors of Native American tradition – black, white, turquoise, maroon and yellow – throughout the landscape.

I was happy at the unifying symbolism, but I was also a bit apprehensive at first about how the colors really worked together. When I mentioned as an aside that I didn't think these colors seemed to blend together very easily, the wife responded, "Maybe not to you, they don't." That response, early on, set me on a path to stretch my usual assumptions about what constitutes a harmonious color palette.

As things unfolded, I found that the plants, natural stone and materials of the surroundings softened the bold disparity of the colors. For the patios, we chose a random pattern of adobe brown/milk chocolate flagstones, and the various spaces were connected by golden decomposed-granite pathways. Much of the landscaping – particularly the ground covers and structural greenery – was kept subtle and neutral in tone, thereby creating a unifying visual baseline and backdrop for the artwork and sacred colors. (See the sidebar on page 34 for more on plant choices.)

Water Dance

As the design process moved forward, I was still challenged to figure out how to include a lap pool. Before long, I was



The spillway serves to draw attention across the pool to the artworks beyond – and, once visitors enter the yard, lends soothing auditory sensations to the visual experience.



The pathway along the fence and behind the pool has become a "gallery walk" where some of the homeowners' most dramatic artworks are on display.

saved by the recognition that I had to consider it as a dramatic waterfeature and as another one of the backyard's works of art.

We placed the pool at the center of the garden, raising it 18 inches above grade for comfortable seating. We kept it rectangular – functional for lap swimming as well as harmonious within the rectilinear design space. At 35 by 10 feet, I felt it might be a bit short, but the clients have volunteered the observation that it works perfectly for both exercise and recreation.

Jeff Canderle of Canderle Pools (Santa Clara, Calif.) worked closely with Rick Myers (Myers Landscape, Granite Bay, Calif.) and a masonry team to solve the various construction challenges, including stabilizing the seven-foot-high turtle sculpture on the raised wall above the spillway. In the end, we all worked together to create a quality watershape that stayed true to the project's artistic sensibilities.

The pool's interior has a custom plaster mix. I wanted the water to look very natural while providing soothing reflections of the sur-



The turtle is perhaps the most prominently positioned of all the sculptures now on display – something we visualized from the start of the design process.

Planting Symbols

Plant selection for this garden of disparate ecologies became a matter of balancing symbolism with practicality.

The utility lines that cut across the yard prohibited the use of taller conifers, for example, so we used *Arbutus* 'Marina' to represent the Northwestern forests in place of the larger and hard-to-grow native madrones (*A. menziesii*). The cinnamon-colored bark tied in naturally and beautifully with the hues of the rusted-iron sculptures. To express the Hawaiian influence and add some drama near the pool, we installed two mature *Phoenix canariensis* palms, with their wide trunks and broad fronds.

Indeed, all plants were chosen for place of origin, texture, use and, in some cases symbolic meaning. We planted white sage for use in the sweat lodge, for instance, with delicate Mexican feather grass along the path. To honor the salmon sacred to Pacific Northwest cultures, I used *Justicia brandegeana* (shrimp plant) from Mexico for its salmon-colored, fish-shaped flowers.

Huckleberry, *Ceanothus*, and *Podocarpus gracilior* espaliers were used as textural backdrops on fences stained a sage green, and an African box was used as a space divider. On the patio near the pool, we used colorful turquoise, gold, and red pots planted with banana and other tropically accented plantings. Further away from the pool, the pots hold *Nolina recurvata* of the deserts, while on the wall above the pool, *Agave attenuata* and cascading California Gold bougainvillea bring together the tropics and the desert.

– C.H.

rounding greenery and artworks, so I chose a soft beige/mustard blend – an earthy color that looks soft green when filled with water.

Of all the design details we included in this project, the pool's ceramic waterline tile is probably my favorite. A great deal of time was spent looking at different tiles to be sure we had the right colors and tones. With so many to choose from, I was surprised with the difficulty we had in finding just the right shade of turquoise. In the end, we ordered a custom color that turned out beautifully and was well worth the extra time and trouble.

The tile pattern isn't based on any traditional pattern. I preferred a contemporary interpretation and came up with a repeating sequence of square tiles of various sizes – six by six, four by four and three by three – that occupied lots of my time in finding just the right combination. Francisco Villa of Villa Landscape (Fremont, Calif.) contributed a valuable final touch to this design as well as providing expert installation.

We knew it would be important to combine the sacred colors and use the pool as a central, unifying feature for



Unlike many of the project's design elements, the tile pattern isn't based on any traditional source, but the sacred colors were used quite deliberately to unify visual impressions across the entire space.

the space, and the tile turned out to be the perfect way to get the job done: The pool is now truly the garden's focal point – centrally located, drawing the eye to the soothing water surface and providing visual points of departure for the Native American art seen throughout the yard.

Working in Progress

Once our work was complete, all concerns about the pool being out of step with the rest of the environment were put firmly to rest. Indeed, what had once been seen as the most distracting of all possible elements in the design now serves a crucial role in pulling everything together.

The fact that the pool is raised offers another benefit: It provides for a somewhat secluded pathway on its far side that serves as a sort of "gallery walk" from which one can view the sculptures amid sounds of moving water, rustling grasses and swaying palm fronds.

But these are clients who will keep evolving and growing, so while we're happy with what we've accomplished, we've come to see this project as an open-ended, developing work of art. In fact, the clients kept right on buying art as we worked, and I know they will continue to bring in more pieces, making changes to the space and adding their creativity for years to come. (At this writing, in fact, we're in the process of adding a kiva fireplace and barbecue).

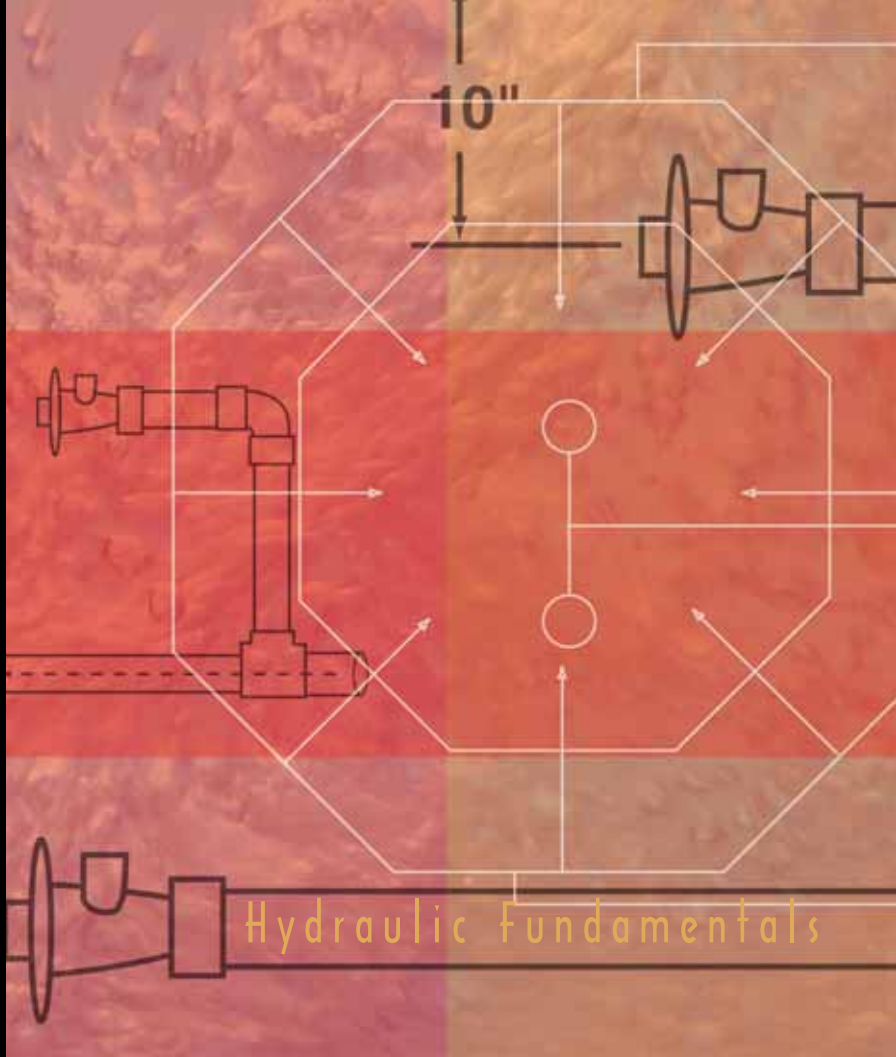
As a designer, I know I may never again run across clients with so developed a set of sensibilities and culture that harmonize so well with my own. The bottom line is that I received much inspiration from these clients, whose creativity and sense of the spiritual so infuse their everyday lives. Satisfying clients like these brings exceptional gratification, of course, but I received an unanticipated bonus when I heard that the sculptor, Elwood Reynolds, was moved by seeing the garden and his art so appropriately displayed.

Certainly a design challenge with any project is to understand and amplify a client's ideas, but when the values behind their ideas resonate so strongly with your own, the work can take on a meaning and excitement that can be truly extraordinary.

Jet Setting

By Steve Gutai

Whether a spa is concrete or portable, custom or mass produced, sound hydraulics and good plumbing are needed if the spa's jets are to give clients the hydrotherapeutic action they crave. The manufacturers of portable spas do this work for their dealers, observes hydraulics expert Steve Gutai, putting watershapers who work in concrete at a disadvantage that must be addressed if concrete spas are to compare favorably with a client's portable options.



People who design and build swimming pools with attached spas are always on the lookout for ways to differentiate themselves in the eyes of the client. The spa, I think, is the perfect place to start.

But the cold fact is that a great many watershapers who build spas do so very conservatively, whether out of habit or because they fear creating overly complex systems that will, after all, be imbedded in a concrete matrix that will make alterations and repairs both expensive and difficult after the fact.

The caution may be understandable, but it leaves the watershaper several steps behind on the hydrotherapy front compared to what's available in off-the-shelf portable spas. Nowadays, consumers are certainly aware of the fact that they can purchase an entry-level portable spa with as many as 20 jets, all with great action, at a reasonable cost.

A typical spa built in conjunction with a pool will include just four to six jets that, because of the choices made, often won't

deliver good "action" and, while they may look good, will be almost worthless when it comes to hydrotherapy. Too often, I've seen jets hampered by inadequate water flow and pressure or improper aspiration. In these cases, clients are left with weak spa jets that do not draft air – and perhaps the wish that they'd turned to the retail option.

Let's see what we can do to alter this situation in favor of the watershaper.

Four Rules for Jet Setters

As with all pool and spa components, the key to designing spas that will stand out and satisfy clients for the long haul has everything to do with understanding the hydraulics involved in their proper performance.

What we're dealing with here is actually pretty straightforward, and it all boils down to four keys:

w Choose the right jets.

Choosing the right spa jets is an important first step – in fact, the first thing

that should be done in designing a spa – to be followed immediately by determining the selected jets' flow and pressure requirements.

Before long, you'll start seeing common characteristics among certain jet bodies. For the most part, off-the-shelf jets with orifice or nozzle sizes of 1/4 inch will have flow requirements of seven to eight gallons per minute; those with 5/16-inch orifices will deliver 10 to 12 gpm; those with 3/8-inch orifices will deliver 15 to 18 gpm; and those with 7/16-inch orifices will deliver 22 to 25 gpm. For their part, swim jets typically will be able to deliver 50 to 150 gpm.

Bottom line: Know your jet flow. Do not hesitate to contact the jet manufacturer to determine the recommended pressure and flow rate for the jets you want to use, and remember that the key here is the idea that the jet orifice dictates the flow and pressure requirements.

What you want is to align flow rate with pressure so that a high velocity stream of water will be discharged from the orifice

or nozzle at a rate sufficient to create a vacuum and pull air into the jet body's venturi chamber, where the stream of water and the air are mixed to create a frothy, aerated effect with the water as it returns to the spa (Figure 1). This is what consumers expect to see and feel when spa plumbing is designed properly.

Remember as well that not all spa jets are created equal! Different jets require different flows, and you need to consult the manufacturer or product literature to determine recommended flow rates and work backwards from there through the manifold to the equipment pad.

w Set configurations and elevations.

As a second step, lay out the jets *before* you begin the plumbing. This may seem an overly basic recommendation, but it's surprising how often the plumbing will go in ahead of jet placements.

Be as accurate as you can, using a tape measure to place jets where you want them to go in the walls and seats (Figure 2). And the same goes for stacked, side by side, staggered, quad and triad jets: Whatever the configuration, let the jets lead the way for the plumbing, not vice versa.

Jets can also be plumbed in the foot well or on the floor, an option that delights many foot-weary clients (Figure 3). When designing configurations on multiple levels, it's advisable to establish separate manifolds for each level – or a common manifold two-thirds of the distance below the waterline.

w Deliver water to the jets.

The third step is part of the process of configuring the manifolds and involves counting the number of jets and multiplying that number by the required flow per jet. This is your rough flow target.

If, for example, you have six jets that each need a flow of 15 gpm, you'll want a flow to the manifold of 90 gpm. Keep that number in mind as you design the overall system: Delivering the proper amount of flow to the jet manifold at the right pressure is critical.

Balancing flow and pressure is also important. As was covered in detail in one of my previous articles ("Water Under Pressure," April 2003, page 48), you need

Figure 1: When flow rate and pressure are aligned, the water stream through the nozzle constriction generates a vacuum that draws in air and creates a frothy flow into the spa.

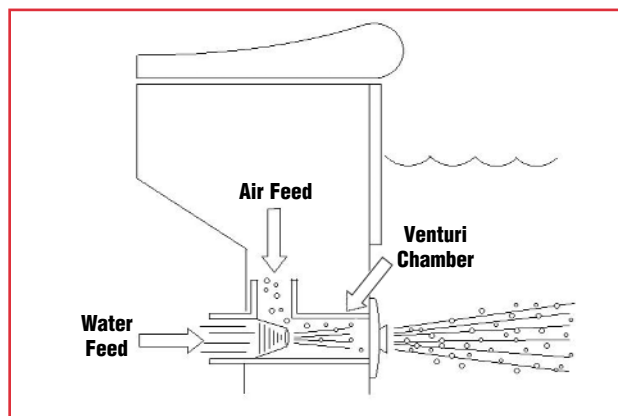


Photo courtesy Aquatic Technology, Morgan Hill, Calif.

Figure 2: Setting up concrete spas for proper performance calls for a good bit of precision in laying out water and air lines and placing the jets in just the right positions in the steel cage.



Figure 3: A client's familiarity with the sort of therapeutic action found in most portable spas gives them high expectation for the level of jet action they'll find in your concrete spas.

to use combinations of downsized loops and manifolds to achieve an efficient and balanced system and remember to keep your line velocity low and consistent throughout the jet manifold (Figure 4).

In selecting a pump to drive the system, avoid the tendency to think that bigger is better. Nothing could be further from the truth, as an oversized pump running a set of spa jets will invite a range of problems from noise and wasted energy to a shortened pump service life and improper jet action.

w Get air to the jets.

The last step on the path to spa-jet success has to do with setting up a Hartford loop. To do so, extend the plumbing of the air-feed port or the venturi tube of a spa jet to a point above the waterline, thereby creating an air gap (Figure 5).

When the spa jet runs, the weight of the falling water column helps evacuate water from the pipe. When all the water is gone, the jet draws air, resulting in the sucking noise commonly heard while spas run.

This process can be forced by using an air blower – quite commonly used and widely available. Each comes with a performance chart that will help you size the blower properly to the jet manifold or to the floor bubblers.

Measured Steps

As with so many other things having to do with good, basic pool and spa design and installation, a watershaper's work with spa jets must be grounded in good, basic hydraulic principles. If you understand what's going on with the jets and the plumbing that backs them up, it's much easier to introduce measures of complexity to your work – a complexity that can bring bigger smiles to your clients' faces.

My advice is to pace yourself and pick up some experience on your way to greater complexity. In other words, instead of jumping from four or six jets to 16 or 20, try stepping up to eight- or ten-jet systems as an intermediate step. Try using multiple pumps as well – one to power wall or seat jets, the other to drive jets on the floor or in the foot well.

If you master the four steps outlined here, you'll find that designing spas for hydrotherapy on a more complex level will become attainable – and ultimately

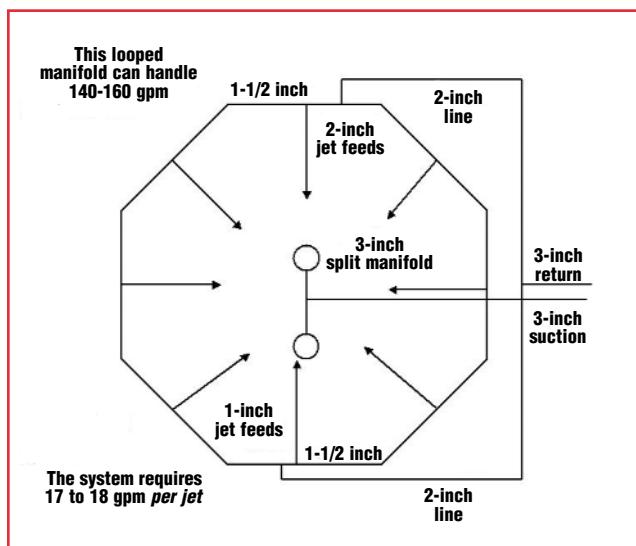


Figure 4:
Balancing the flow and pressure in jet systems for concrete spas usually calls for combinations of downsizing loops and manifolds, such as the configuration sketched here.

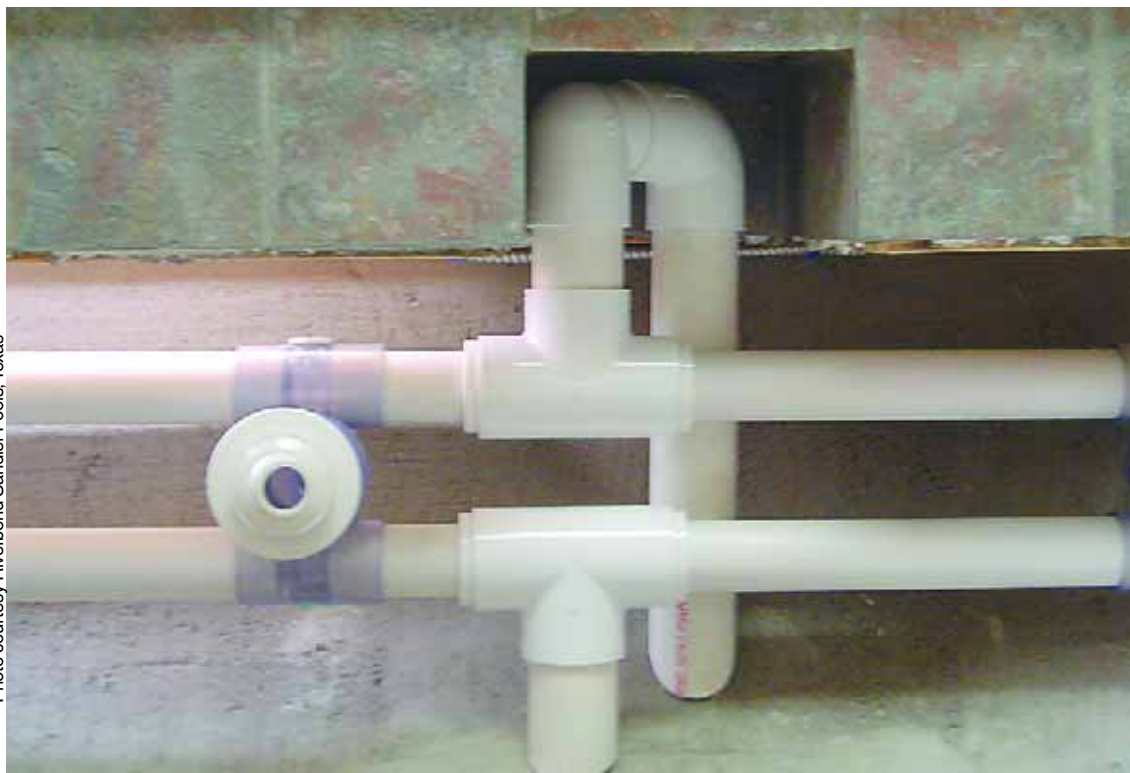


Figure 5:
Setting up a Hartford loop – that is, extending a section of the air-system's plumbing above the waterline – is a simple way to ensure optimal jet-system performance.

An INVITATION to JOIN the

National Plasterers



SUPPORTED BY OUR ASSOCIATE MEMBERS:

3M Industrial Minerals Products
 A & A Plastering of Cinti
 Apcan USA, Inc.
 Aquavations Corporation
 Baja Stone and Clay Inc.
 Beadcrete USA
 Blake Sales Associates
 Cal-Duct
 Cementhai SCT Inc.
 CL Industries, Inc.
 Crossfield Products Corp.
 Custom Molded Products, Inc.
 DRP Consulting, Inc.
 Englehard Corporation
 Federal White Cement
 Fiberstars
 Florida Stucco Corp.
 Fritz-Pak Corp.
 Hayward Pool Products, Inc.
 Imerys
 Jack's Magic Products, Inc.
 Kover Krete Systems
 Lehigh White Cement Co
 Macalite Equipment, Inc.
 Mapei Corp.
 Mason Mart
 MCA Systems, Inc.
 Monarch Mountain Marble Company
 Multicoat Products, Inc.
 N.T. Ruddock Co.
 Nathan Kimmel CO
 National Pool Tile Group
 Noble Tile Supply
 Northern Premix Supply
 Peninsula Products Inc.
 Pentair Pool Products
 Phoenix Products Company
 Pool & Electrical Products
 Putzmeister America
 Pyramid Cement Products
 Royal White Cement, Inc.
 Silicon Derivatives, LLC
 Southern Grouts & Mortars
 Specialty Minerals, Inc.
 Spray Force Mfg. Corp.
 Superior Pool Products
 Tecno Industries
 TXI Riverside Cement
 Ultra Pool Coatings
 Universal White Cement Company
 Westside Building Material
 Whitestone Cement Co.

Join the professional trade association of pool surface contractors dedicated to finding SOLUTIONS to issues regarding plaster and surface application, maintenance and water chemistry. The NPC Member Benefits include:

- NPC Technical Manual
- NPC ONLINE Newsletter
- NPC Website with MEMBERS ONLY AREA
- Member DISCOUNTS
- Pool Surface RESEARCH CENTER
- Annual NATIONAL CONFERENCE
- EDUCATIONAL Seminars
- Future CERTIFICATION Programs
- TECHNICAL ASSISTANCE by trade experts

If you are a pool surface applicator, pool contractor or pool service contractor, there is a reason to join NPC. Download an application from our website or give us a call!

www.npconline.org


Toll Free: (866) 483-4672



Clearwater Credence

By George Forni

The watershapes on this corporate campus serve as monumental employee amenities – fountains, streams, ponds and a lagoon that provide workers with views both intimate and expansive and with great places to relax, think or hold meetings. Keeping these multi-purpose systems in top-notch condition is the mission of lake expert George Forni, who discusses here what it takes to meet the client's demand for high-profile, highly specialized care.



Even compared to other spectacular facilities established by Silicon Valley's high-flying software industry, Oracle's corporate campus is truly impressive.

The mirrored-glass architecture and warm, meticulously maintained grounds are only the start of the story. As you dig deeper, you find a range of employee-oriented amenities both inside and outside the buildings that make it tough to do anything but admire the audacity involved in creating such a workplace – and envy the people who work there.

The management at Oracle makes no bones about it: All of the opulence is designed to attract and retain employees capable of developing cutting-edge software systems. That's why you'll see designer furniture in the offices, international cuisine in the restaurants and beautiful artwork throughout the compound. It's an amazing place, and one that has been scrupulously maintained since construction was completed in the early 1990s.

The watershapes reflect the management's lofty sensibility and are an integral part of an overall scheme of plazas, rolling lawns, pathways and places to relax, meet or socialize with fellow workers. Our role since 1998 has been to maintain the five architectural waterfeatures and the 11-acre, brackish-water lagoon and geyser that front the facility. In a change of pace, this isn't a story of how the watershapes were built; rather, it's about what is involved in keeping these grand-scale systems working.

Through the Glass

From the beginning, the staff at Oracle let us know that maintaining absolutely pristine water quality was our top priority, and they've invested significantly and consistently in the work needed to continue to upgrade and maintain the facility with that goal in mind.

Every year, we submit detailed proposals for anticipated work, including almost-daily service, major repairs and equipment replacement, and a management plan for the lagoon. The work that follows those discussions and negotiations is a huge undertaking that requires almost constant vigilance as well as a keen understanding of water-quality issues and what's required to manage large watershape systems.

The campus was built in phases from the late 1980s to the early '90s. It consists of six main buildings, and as each rose into the skyline, watershapes were installed to grace the grounds below. Today, there are three unusually large stream/ fountain systems strategically located between the buildings, with two smaller fountains located near the main entrances of two of the buildings.

The first of the three large watershapes installed in the earliest days of the complex has a somewhat "dated" appearance and was driven by similarly dated equipment. It begins in a series of small pools surrounded by rocks

and decking that feed a stream that flows over a series of poured-in-place concrete steps with a dark-green tint.

The two newer watershapes are made of limestone block, both with highly sculptural appearances and perhaps the most striking and complex of all the exterior features on the campus. On the larger of the two, the flow initiates in a large reflecting pool edged by sloping grass. Boulders sit around the edge, with several benches under trees – to my mind, the most restful area on the campus.

The pool feeds a stream that flows under a pedestrian bridge and then over a series of limestone weirs into a lower reflecting pool. It's an interesting mix: a free-form body of water at the upper level, quite natural in appearance, with transitions to sculpted structures below.

There's a second, somewhat smaller feature of similar design. Built at the same time as the large feature, it lacks the pond and stream and instead has water issuing from a split boulder in the center of a reflecting pool. In this case, colorful cobblestones are visible through the crystal-clear water.

There are also two small fountains made of concrete poured into a block-style form of structure. The concrete has a rough finish and a rugged appearance that contrasts with the crisp architecture all around them. The water wells up from the center of the block structures and pours over the sides to be collected in small reservoirs covered in smooth river cobble.

Service on High

Our assignment is to keep all of these systems operating and up to date; the fountains clean of debris; and, most important of all, the water as clear and inviting as possible.

And the water is definitely inviting. In fact, there's a great deal of human interaction with the fountains, including the occasional child or grown-up who walks right up to touch the water, and we're mindful of the fact that the facilities are used all day, every day of the week, which means the waterfeatures are running the vast majority of the time.

It's no mistake that all of the watershapes are located near restaurants and in plain view of staff and anyone else who happens to be on campus. From the start, we knew that top-notch water quality was not just a matter of aesthetics, but also conveyed messages about health and safety as well.

The easiest systems to maintain are the block fountains, which feature simple re-circulating systems driven by single pumps. The only real work here is removing the leaves that tend to collect in the reservoirs: There are no filters to clean, so the regimen is a thorough twice-yearly draining and cleaning – with a near-daily picking up after the trees. In addition to these basic maintenance services, we will reset operational times and periodically inspect the



mechanical systems to make sure the pumps are functioning properly.

The architectural fountains are more complex, and one of the first things we did was replace the original equipment. The dated pump's strainer baskets were far too small for the application and the filters were less efficient than we wanted, so we replaced them with WhisperFlo pumps and Triton sand filters from Pentair Pool Products (Sanford, N.C.). It helped that we were familiar with the new equipment's reliability and serviceability, but it also was important that the new pumps' strainer baskets have much greater capacity and therefore require less-frequent attention during the fall season.

The volume of debris is indeed an increasing challenge: As the landscape has grown, more and more leaves accumulate in the watershapes to the point where enlarging skimming capacities and up-sizing pump strainers has been a real priority. Just staying a step ahead of these deciduous beauties – mostly poplars and dogwoods – is a full-time job.

As they've matured, the trees put on shows in the spring and fall that have become truly spectacular, but they also make a real mess. So while altering and upgrading systems has been a necessity, we've also had to increase the hours spent cleaning and treating the water.

Clean Chemistry

With the exception of the lagoon, all of the campus' watershapes rely entirely on sand filters (rather than bio-filtration) to polish the water. The larger fountains and reflecting pools and streams are all chlorinated using a granular trichlor added by hand during service events.

Given the scale of the watershapes, we go to great lengths to monitor chlorine levels and keep the residual at a low level – not more than one or two parts per million – as a way to stave off any chlorine odors. We use trichlor because it dissolves quickly and is 90% available chlorine. Trichlor also has a longer-lasting residual,

Crystalline water clarity is our goal with every one of the watershapes on the Oracle campus – a prospect made challenging by the presence of lots of deciduous trees.

HOW GOOD DO YOU WANT TO BE?

GENESIS 3
LEVEL I DESIGN SCHOOL
October 27-31, 2004
Morro Bay, California

The Level I Design School is all about high-quality, forward-thinking education: the best available instructors, innovative approaches, challenging yet rewarding topic coverage – all with an aim of expanding every participant's professional horizons.

CURRICULUM HIGHLIGHTS

- A limited number of participants are enrolled to ensure the highest level of instruction
- All classes are taught by top industry professionals
- Special focus is placed on drawing and presentation techniques, design, engineering, hydraulics, construction, vanishing-edge details, the history of pool and fountain design – plus much more!
- The school includes a lifestyle program with a focus on food and wine education, including wine tastings featuring some of the top winemakers of the Central Coast and special dinners with some of the area's best chefs
- Tuition covers classroom time, supplies, first-class accommodations and food (airfare not included)
- Participants are encouraged to bring a guest or spouse to enjoy quality time in one of California's most spectacular settings (please call for more information and prices)

Hundreds of professionals have been through the Level I School since 1998. If you want to find out just how good you can be, contact us soon: Class size is limited, seats are available on a first-come, first-served basis, and our fall schools typically fill up months in advance!



GENESIS **3** DESIGN GROUP

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

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

Genesis 3 is proudly sponsored by Jandy, Pentair, Aquamatic, Pebbletec, Sta-Rite, SonarGuard, Aqua Magazine, AutoPilot/AquaCal and WaterShapes.

GENESIS 3 - THE INTERNATIONAL FORUM FOR CONTINUING EDUCATION FOR WATERSHAPE DESIGNERS

Circle 16 on Postage Free Card



and well-balanced systems tend not to gas off as rapidly. This helps us maintain proper chlorine levels over a longer period, saving time and money and reducing the possibility of over-chlorination.

We also watch pH closely to ensure that we aren't damaging concrete or stone surfaces with corrosive water. Our target is the narrow range from pH 7.4 to 7.8 – just on the basic side of neutral. This promotes a bit of scale formation, but that's something we can deal with easily when we maintain, drain, clean and refill the systems. (This is far simpler than dealing with the etching or pitting of grout and concrete structures that would occur in acidic water.)

As with any clear-water or swimming-pool-type system, filtration, cleaning and water chemistry require constant vigilance. With a high-use site such as this one, and especially given Oracle's demand for impeccable water quality, it's critical to do the work based on what the systems need day by day instead of just following a maintenance schedule. Truth is, we adjust our routines all the time. We also try to anticipate problems, particularly pump failure, and have established procedures with the client that let the work move forward quickly when equipment needs replacing. This minimizes downtime – a critical issue for facility managers.

We do, however, have schedules for draining each of the features (with the exception again of the lagoon) twice each year to let us effect repairs, clean the filters and clear away accumulated debris. As a valuable side benefit, regular draining enables us to rid the systems of any water quality problems that might be starting to develop as a result of nutrient loading or other storm-related events.

That last point is important, because the semi-annual draining and refilling lets us reduce use of chemicals frowned upon by the regulators who enforce rules gov-

The use of mechanical systems of aerators and pumps keep the water moving and prevent many clarity-related problems, but the fact is that these watershapes require near-daily care by service staff.

erning discharge into storm drains. It also lets us remove whatever tree-related gunk has accumulated on the cobbled bottoms of the features – a key step in our program of keeping the view through the pristine water as pleasing as possible.

As mentioned above, we've also spent time on reconfiguring plumbing systems to increase skimming action in the ponds. In the case of the oldest fountain/stream system, this meant removing a good deal of decking and replacing the liner, which had begun to leak. We also chased down a number of problems having to do with cracks in concrete and leaking sections of plumbing.

Bayfront Property

For all the prominence and aesthetic importance of the watershapes directly adjacent to the buildings of the Oracle complex, there's no doubt that the lagoon, mentioned in passing several times so far, is the most noteworthy of all the features on the campus.

It's what people see as they arrive on the site, and the fact that it offers shimmering reflections of the company's office towers is particularly impressive and eye-catching. Covering about 11 acres, the lagoon is approximately six feet deep throughout and is fed by sloughs that run from the south end of the San Francisco Bay, making the lagoon both brackish and, to a degree, tidal.

The lagoon is maintained with no chemicals or filtration of any kind. Instead, we use the tides and rely on a carefully controlled exchange of fresh bay water with brackish lagoon water to ensure a clear feature that is free of intrusive plant growth, algae or stagnancy.

The lagoon pre-dates the Oracle campus and was part of the Marine World complex, one of the first marine parks. Although this system is a far cry in terms of functionality and controllability from the watershapes of the interior areas of the



The aim of all of our work in maintaining systems and working with the water is to create an environment as relaxing and soothing as possible for the company's employees – a task made easier by management's commitment to our mission.



The most prominent of all the watershapes on the Oracle campus is the lagoon, a tidal basin fed by the waters of San Francisco Bay. No chemicals or filters are used: It's our responsibility to manage the flows in and out to ensure pristine water at all times with no invasive plant growth, algae blooms or stagnancy.





campus, Oracle's management let us know in no uncertain terms that water quality was just as important in the lagoon as it was everywhere else – and perhaps more so.

The water's flow in and out of the lagoon is controlled by two large vaults and a massive pump. The vaults are there to regulate water level and avoid extreme tidal fluctuations in the lagoon. (Left on its own, the water level would swing by as much as five or six feet within a given 12-hour period. With the vaults, we're able to keep the water level stabilized within a six-to-eight-inch range.)

One vault is dedicated to outflow and allows water to escape during low tides. The second controls the inflow and lets water enter the lagoon during high tides at a regulated pace through an adjustable sluice gate. The discharge-pump system forces water out via an 18-inch line that connects the lake to a bay slough and serves for both stormwater control and water exchange.

The water exchange is enhanced by the large pump, which operates between 10 and 12 hours each day. We use a mathematical algorithm that takes into account the water coming in and out via the tides as well as the additional water we need to remove via the pump in order to maintain water quality and/or reduce any risk of flooding.

Seasonal Variations

The time settings on the lagoon's various pumps and gates vary according to season and attendant shift in tidal levels. These are big numbers in all cases, and we put them to work in meeting our rough goal of replacing from 40% to 50% of the lagoon's water each day.

To get the job done, a 40-horsepower pump on an 18-inch discharge line moves 6,000 gallons per minute via a submerged suction assembly. The vaults are quite large: The outflow vault is 20 feet long, 12 feet wide and 12 feet deep, while the influent vault is about half that size. They're difficult to access because they're covered with immense grates – removal of which is a big job all by itself that calls for a truck-mounted crane. All maintenance and cleaning operations are performed in chest waders. For the most

part, repairs are done by scuba divers.

These are big systems that have worked beautifully for many years now, but we constantly monitor their operating condition and change the settings on the valves and sluice gates according to tidal charts. It all requires a good deal of monitoring and a lot of calculating to keep inflows, outflows and water exchanges at acceptable rates, and the results are clear: The water is completely free of the intrusive plant life that tends to invade similar bodies of brackish water nearby.

One of the keys to maintaining the lagoon's water quality is the aeration provided by the five-story geyser located at its center. The original feature, which was the most difficult of all to maintain, consisted of a 50-hp pump located in a submerged vault that fed a perforated eight-inch nozzle mounted on a standpipe in the lake's center. This system was troubled by a number of problems, the most significant having to do with water intrusion – not a good thing with equipment running on 480-volt power service. In addition, the impellers degraded rapidly and were very expensive to replace.

Happily, we've replaced that system with a self-contained, floating-fountain system made by Aqua Control, Inc. (Peru, Ill.). The support staff there helped us design a system that will provide the exact same appearance on the water as the original geyser, but one that frees us of the need to work with high voltages in a leaky sub-grade vault. The new unit also has lighting to accent the feature at night.

As emphasized at several key points, maintaining watershapes such as these can never be strictly a matter of routine. Not only is it about making seasonal adjustments or, in the case of the lagoon, tidal calculations and doing what it takes to meet a client's needs, but it's also about not settling for the status quo and striving constantly to find effective ways of improving water quality.

It takes a lot of dedication to do things in this way. But given a client like Oracle and its manifest dedication to creating a setting in which staff is constantly inspired and soothed by the presence of water on a grand scale, is there any possibility of delivering anything less than true excellence?

Through 35 years of creating watershapes ranging from small fountains to large waterfalls and streams, landscape artist Frederick L. Gregory always sought to harmonize the primordial splendors of nature with current times and settings. Today, he sculpts granite and creates his harmonies by deftly merging the asymmetry of the Japanese garden with the sensual abstractions of tropical Brazilian landscapes in compositions that often involve the mesmerizing qualities of water.



ON SAILS

CREATING granite waterfeatures is not unlike the delicacy of deep-water yacht racing: Racing big boats across the open sea requires intuitive sense in harnessing the raw powers of nature, much as do the creative insights needed to take raw monoliths from quarry walls and produce elegant expressions that reflect our primal essence.

Both endeavors must gracefully balance the unbridled forces of nature. In yacht racing, wind and waves must be brought into harmony with a yacht's unique rigging and sails by its skipper and crew. With granite waterfeatures, an innate sense of harmonic balance must be struck between granite and/or water, the landscape and the human observer's ability to appreciate solemnity.

In my case, these harmonies have consistently been found in asymmetry. Indeed, I've come to feel confident with the premise that people are, knowingly or not, drawn to the asymmetrical balances they see in nature. I also see both art and architecture as skillful reflections and expressions of what we have observed in nature from time immemorial.

To that end, I try to create works that draw their form and spirit from the intuitive balance of asymmetry. Whether sculpting a landscape, setting stones in a rock garden or cutting granite, I constantly call up the dictum – somewhat tongue-in-cheek – that all architecture should be sculpture and all sculpture should be architecture: What I do involves freely transposing forms and ideas from one medium to the other.

FAR FROM KYOTO

My first encounters with the use of stone in asymmetrical designs flowed from Japanese gardening traditions.

I began setting granite in landscapes in 1967 in Fresno, Calif., after having worked in Carmel Valley, Calif., with Brad Bowman, who invented the patterned-concrete process. He had developed a Japanese garden for his home, and I was astounded to see rocks set in a garden with such artistry and apparent aesthetic meaning.

I was a concrete contractor at the time, working in ornamental and decorative forms in landscapes, and my eyes were forever opened that day to the

OF STONE

BY FREDERICK L. GREGORY



aesthetic potentialities of concrete and hardscape materials.

Not long after my epiphany in Bowman's garden, I was asked by a homebuilder in Fresno to create hardscapes in which I included rocks in various small garden settings. I installed a number of rocks in one small garden, about 15 pieces, none very large, and was pleased with the way it looked and how it mimicked natural, random patterning. Later, when a landscaper from the local nursery came to see what I'd done, he expressed surprise and delight: He'd studied Japanese gardening extensively and told me that I had created classic Japanese rock settings despite the fact I had no real idea what I was doing.

He fired my curiosity, showing me several gardens he had done and suggesting several books on the subject. From the outset, what I perceived and instinctively pursued were the possibilities encompassed by the asymmetrical balances found in these Japanese gardens.

At that point, I began focusing on stone, particularly granite, and set about using it in asymmetrical balance to invent harmonic visual compositions. I also began devouring books on Japanese gardens and gardening and, finally, traveled to Japan to tour the amazing gardens of Kyoto.

Visiting Japan and touring the centuries-old gardens, I was struck by the manicured greenery, the ingenious use of space and the artistry of the stone settings. While it was clear to me even then that I would never master the pure art of Japanese gardening on this exalted level, I knew there were principles of this spectacular design tradition I could use to fuel my work back home.

TRADING INFLUENCES

The first major project I had that enabled me to use my initial exposure and experience with the asymmetrical precepts of the Japanese garden was at Fresno's Duncan Water Gardens, which included more than 600 tons of stone set on a three-quarter-acre site. I signed



VALUED INFLUENCES: My development as a landscape artist was shaped indelibly by the experiences I had in working with master Japanese gardeners at the Duncan Water Gardens (A), where I learned (among many other things) about artistic arrangement of 20-to-25-ton stones (B), and in my association with Roberto Burle Marx, who opened my eyes to the use of granite as an expressive material and installed one of my first compositions (seen at left in photo C) on his property in Brazil.





onto the project in 1973 and had the privilege of working with two master Japanese gardeners, Matsuco Shibata, a fourth-generation rocksetter from Japan, and the great landscape architect Kodo Matsubara.

Working under a blistering summer sun, the two men demonstrated remarkable energy and focus on the grueling work and taught me to see the garden as a whole, organized around asymmetry. To this day, Duncan Water Gardens remains a beautiful place to visit and a significant point of pride for me when I consider these great masters and the valuable lessons they conveyed.

I subsequently found that these principles of artistic asymmetry, so rooted in Japanese traditions, were being transposed to other forms of artistic expression by great modern artists such as the sculptor Isamu Noguchi and others. Perhaps the most dramatic example of this transposition I've ever found is in the work of Roberto Burle Marx, an artist as far removed geographically and spiritually from Japan as possible.

In the early 1970s, I traveled to Brazil, where I was to live and work designing and installing my granite-based gardens – Rio de Janeiro being one of the principal granite centers of the world. I stayed for more than a decade and came to know this distant relative of Karl Marx – a landscape designer and artist who was a true revolutionary in his own right. I settled in about a half mile from his home and, although I was fully aware of Marx and his work, had never met him.

I had some skills as a journalist and put out feelers about doing an article on this great and dynamic master of garden design and soon received an assignment from an international landscape architecture magazine. Marx and I came to know each other fairly quickly through the process, and I proceeded to work with him and learn more about what he and his revolutionary vision of the tropical landscape actually entailed.

I was lucky to spend a great deal of





LESSONS APPLIED: I've always seen my work in stone as an extension of my experience as a landscape designer. In these cases, I've incorporated water at the foundation of the sculptures not so much to make philosophical statements about the relationships of stone to water as to reflect stone's presence in natural landscapes and add simple visual interest and complexity to overall compositions.



time with him and to see how he applied principles of 20th-century abstract art to his garden designs, which he very often accentuated with prodigious quantities of exotic native foliage available in Brazil as well as myriad pieces of granite, some hand-carved up to three centuries previously. He showed me fantastic spaces, particularly his own garden on a sprawling estate in Guaratiba, on Rio's southern outskirts. It was there that I saw the diverse uses to which he put granite – in beautiful, sculptural landscape settings, as elegant wall decorations and as groupings of set stones. His use of space, his layering of views, his palettes of colors, textures and plant materials – they and Roberto himself indelibly captured my imagination.

As I thought back to the gardens in Kyoto, with their magnificent backdrops of trimmed azaleas, it occurred to me that Marx's work was not all that distant from Japanese gardening, even though he was using broad-leafed tropical plants and granite configurations that were vastly different from anything the Kyoto gardeners could have considered.

For lack of a better term, Marx's work has often been described as "abstract tropical gardening," which as a rule bears very little stylistic similarity to Japanese gardening. Nonetheless, I was struck by how roundly his work encompassed the same familiar principles of balance and asymmetry.

SCULPTURE AND WATER

With my background in hardscape and stone and, more important, with the powerful inspiration of my Japanese masters as well as Noguchi and Marx, it dawned on me that working with stone sculpture was a natural extension of the landscape design work I had done. It was at this point that I began trying to incorporate the concept of three-directional asymmetry into single sculptural pieces.

I started out with vertical pieces – basically tall rectangles stacked one-on-



INTEGRATED SPACES:

In each of these cases, water flows from the top to wet the entire surface of the sculpture, creating dances of light and motion on surfaces that, in the usual course of things, are seen as static. While it's easy to apply metaphors to the results, the fact is that observing the flow is relaxing and intriguing to observers in familiar and comforting ways.



top-of-the-other – putting saw cuts between each piece to create shadow lines. Using this basic approach, I've been able to craft what I view as Japanese gardens condensed into single sculptures. By approaching forms in this way, I've been able to create pieces of sculpture that, on their own, provide the sort of asymmetrical balance and soothing harmony of a garden, and they work visually as either stand-alone pieces or within the context of well-designed spaces. (Interestingly, I've found that the vertical pieces I've done really "read" in only two dimensions while existing harmoniously in three-dimensional spaces.)

The use of water in my pieces is not something I ever thought about in any direct, formal, philosophical way. I simply started working with water as part of the whole landscape mix, not unlike a writer who's interested in both poetry and prose. I have found, however, that the pieces I've done that include water have received considerable acclaim among both viewers and clients, primarily because of the wonderful visuals inherent in the interplay between rock and water – particularly with black granite, where the wetted surface becomes a mirror.

As is the tendency of people who spend time thinking about what they do, I've come to see the use of moving water in my sculptures as being emblematic of the origins of life on the planet and of man's existence as part of the planet. This makes observing these sculptures both relaxing and intriguing as well as familiar and comfortable to those who see them.

This familiarity puts all of us water-shapers in a good place: People are drawn to what we do, even if they can't express the reasons why. We grew up with water as a species; it is inherent in our composition; it is how we originated. This is why water is so important to all human beings, no matter the culture or principles of design.

Combinations of water and stone draw us to our natural state – not unlike a day spent sailing before a following sea.

LIGHT PLAY: I began working with water as a landscape artist and transposed that interest to my work with granite sculptures. The sense of fluidity set against a backdrop of such profoundly stationary objects has proved particularly intriguing to observers and clients alike.





EAST AND WEST

While I was on a short Japanese-garden-designer sabbatical many years ago, I became fascinated by the way that their work unfolds with a reverence for the forms and shapes of the stones and the organization of space.

Coming from a Western culture, I knew that I would never reach the level of intuitive, cultural understanding they had for their work, nor have I ever tried to become completely conversant in their gardening techniques. Still, the basic ideas they have about how balance is achieved transcend design style and can be applied across a wide range of settings and situations, be they landscape designs or sculptural designs. (As I indicated at the outset of the accompanying article, they really are one and the same things to me.)

Within the Japanese garden and its basic asymmetrical triangles, objects are arranged in a way that is profoundly comforting to the viewer – even without providing a defined center. (If you show someone a line and ask them to put one point on that line at which they feel comfortable, in most cases they'll put a point somewhere between two-thirds and three-quarters of the way down the line in one direction or the other – an asymmetrical distance.)

I found that once you get the logic of asymmetry and lodge that sensibility in your mind, everything in a design will flow from it. Few people really know or can express exactly why they like Japanese gardens and the sculptures that have evolved from them, but you can bank on the fact that artful asymmetry has something to do with the appeal. This is very different from Western culture, which, to stay with the triangle analogy, is based more on the isosceles triangle and spatial arrangements that have much to do with pure ventral symmetry and order.

In the Western design tradition, there is a perfect pinnacle, an apex of design, that ties into all sorts of cultural notions about our relationship with nature and so on. In Japanese design, by contrast, the apex is never pinpointed. Balance – *harmonic* balance – is achieved by the contrasting deployment of short and heavy vs. long and light. The accumulated weight/volume of one side is equaled by the accumulated weight/volume on the other.

As in Western culture, the Japanese design approach is indicative of the larger cultural ideas found in religious iconography and the view of our relationship with nature. There is no right or wrong here, just a matter of recognizing guiding principles and putting them to work in garden, watershape and sculptural design.

– F.L.G.

PRODUCT INFORMATION CARD

For more information on advertisers and/or products featured in this issue's Of Interest section, circle the corresponding Product Information Number on the postage-free card opposite this page.

ADVERTISER INDEX:

Reader Service Number

6	Advanced Aquaculture Systems (pg. 8) (813) 653-2823 www.advancedaquaculture.com/landscape
80	Aqua Control (pg. 20) (800) 377-0019 www.aquacontrol.com
3	Aquamatic Cover Systems (pg. 3) (800) 262-4044 www.aquamatic.com
99	Balboa Direct (pg. 13) (800) 645-3201 www.ecomatic.com
8	Cover-Pools (pg. 67) (800) 447-2838 www.coverpools.com
11	Coverstar (pg. 63) (800) 617-7283 www.coverstar.com
108	Florentine Craftsmen (pg. 20) (800) 971-7600 www.florentinecraftsmen.com
16	Genesis 3 Schools (pg. 43) (877) 513-5800 www.genesis3.com
	Gilderfluke & Co. (pg. 61) (800) 776-5972 www.gilderfluke.com
77	Irish Natural Stone (pg. 26) (617) 737-7397 www.francismccormack.com
96	Jandy (Water Pik Technologies) (pg. 68) (800) 227-1442 www.jandy.com
22	Jandy (Water Pik Technologies) (pg. 23) (800) 227-1442 www.jandy.com
63	Macalite Equipment (pg. 14) (877) 622-2548 www.macaliteequipment.com
84	Multicoat (pg. 9) (877) 685-8426 www.multicoat.com
1	Natare (pg. 26) (800) 336-8828 www.natare.com
109	National Plasterers Council (pg. 39) (866) 483-4672 www.npconline.org
4	National Pool Tile (pg. 7) (888) 411-8453 www.nptgonline.com
75	Oceanside Glasstile (pg. 27) (866) 648-7665 www.glasstile.com
104	Otterbine Barebo (pg. 62) (800) 237-8837 www.otterbine.com
58	Pem Fountains (pg. 25) (800) 387-3600 www.pemfountain.ca
116	Poly Solutions (pg. 65) (724) 449-1040 www.polysolutionsinc.com
45	PoolFog (pg. 60) (866) 766-5364 www.poolfog.com
120	Recreonics (pg. 12) (800) 428-3254 www.recreonics.com
51	Regal Plastics (pg. 65) (800) 444-7755 www.regalplastics.com
92	Replications Unlimited (pg. 61) (314) 862-1400 www.replicationsunlimited.com
48	Roman Fountains (pg. 11) (800) 794-1801 www.romanfountains.com
67	Roman Fountains (pg. 64) (800) 794-1801 www.romanfountains.com

86	Savio Engineering (pg. 19) (888) 333-2356 www.savio.cc
35	Spray Force Mfg. (pg. 16) (800) 824-8490 www.sprayforce.com
42	Standard Bronze (pg. 62) (201) 339-1351
52	Stegmeier Corp. (pg. 15) (800) 382-5430 www.stegmeier.com
125	Vanson HaloSource (pg. 31) (888) 282-6766 www.seaklear.com
100	Vortex Aquatic Structures (pg. 17) (877) 586-7839 www.vortex-intl.com
56	Waterway Plastics (pg. 2) (805) 981-0262 www.waterwayplastics.com

OF INTEREST INDEX:

135	Cantar (pg. 60)
136	Jandy (pg. 60)
137	National Pool Tile Group (pg. 60)
138	Multiquip (pg. 60)
139	Emerson Motor Technologies (pg. 61)
140	Del Ozone (pg. 61)
141	Marion Ceramics (pg. 61)
142	Space Cannon (pg. 61)
143	Emecole (pg. 62)
144	Concrete Impressions (pg. 62)
145	PPG Industries (pg. 62)
146	Jakob (pg. 62)
147	Aquatic Recreation Co. (pg. 63)
148	Paragon Aquatics (pg. 63)
149	Western Red Cedar Lumber Association (pg. 63)
150	Authentic Provence (pg. 63)
151	Caterpillar (pg. 64)
152	Neptune-Benson (pg. 64)
153	Kichler Landscape Lighting (pg. 64)
154	illbruck Architectural Products (pg. 64)
155	Stonecreek Pavers (pg. 65)
156	Most Dependable Fountains (pg. 65)
157	Moss Acres (pg. 65)
158	Boral Pavers (pg. 65)

MISSING ANY?

r **February 1999** (Vol. 1, No. 1)
Tisherman on working in difficult soils; **White** on edge treatments; **Lacher** on expansive soils.
 n **April 1999** (Vol. 1, No. 2)
Hopkins on designing with large rocks; **Hare** on basic hydraulics; **Straub** on shell curing.
 r **June 1999** (Vol. 1, No. 3)
Phillips on water and decks; **Parmelee & Schick** on soils and geology; **Anderson** on water sounds.
 r **August 1999** (Vol. 1, No. 4)
Anderson on stream design; **Adams** on community waterparks; **Gutai** on spa hydraulics.
 r **October 1999** (Vol. 1, No. 5)
Holden on aquatic-design history; **Mitovich** on dry-deck fountains; **Tisherman** on site geometry.
 r **December 1999** (Vol. 1, No. 6)
Finley on Japanese gardens; a roundtable on pools and landscape design; **West** on color rendering.
 n **January 2000** (Vol. 2, No. 1)
Hart on designing for model homes; **Zaretsky** on retaining walls; **Chapman** on hybrid pool finishes.
 r **February 2000** (Vol. 2, No. 2)
Hersman on lighting design; **Macaire** on faux-rock installations; **Andrews** on glass mosaics.
 r **March 2000** (Vol. 2, No. 3)
L'Heureux on project management; **Long** on steel cages; **Forni** on installing and maintaining lakes.
 r **April/May 2000** (Vol. 2, No. 4)
Schwartz on garden access; **Anderson** on streambeds; **Nantz** on watershapes and architecture.
 r **June/July 2000** (Vol. 2, No. 5)
Holden on fountain-design history; **Bibbero** on large stones; **Anderson** on making streams work.
 n **August 2000** (Vol. 2, No. 6)
Tisherman on shapes; **Lucas** on watershapes for wildlife; **Ryan & Medley** on the vertical axis.
 r **September 2000** (Vol. 2, No. 7)
Davitt on designing for small spaces; **Altwater** on the importance of aeration; **Hetzner** on sheet falls.
 n **October 2000** (Vol. 2, No. 8)
Lampl on natural design; **Anderson** on finishing streams; **Rubenstein** on kinetic water sculpture.
 r **Nov./December 2000** (Vol. 2, No. 9)
Arahuete on John Lautner; **L'Heureux** on stretching laminar flows; **Benedetti** on satellite surveying.
 r **January/February 2001** (Vol. 3, No. 1)
Holden on a retro-look design (I); **Fleming** on

upscale approaches; **Gutai** on pump technology.
 r **March 2001** (Vol. 3, No. 2)
Moneta & Farley on site-specific design; **Benedetti** on fiberoptics; **Alperstein** on golf-course water.
 r **April 2001** (Vol. 3, No. 3)
Jauregui on inspired clients; **Dirsmith** on frosty fountains; **Tisherman** on deluxe finishing.
 r **May 2001** (Vol. 3, No. 4)
Reed on sculpture gardens; **L'Heureux** on sequenced water; **Brandes** on restoring riverfronts.
 r **June 2001** (Vol. 3, No. 5)
Winget on fun-inspired waterforms; **Holden** on survey formats; **Schwartz** on classic stonework (I).
 r **July/August 2001** (Vol. 3, No. 6)
Rugg on pond basics (I); **Ruthenberg** on perimeter overflow; **Schwartz** on classic stonework (II).
 r **September 2001** (Vol. 3, No. 7)
Rugg on pond basics (II); **Urban** on energy savings; **Pasotti** on interactive waterplay.
 r **October 2001** (Vol. 3, No. 8)
Tisherman on hilltop views; **Hagen** on natural stream work; **Schwartz** on classic stonework (III).
 r **Nov/December 2001** (Vol. 3, No. 9)
Straub on Kansas City's fountains; **McCloskey** on the Getty Center; **Tisherman** on Fallingwater.
 r **January 2002** (Vol. 4, No. 1)
Phillips on Hearst Castle's watershapes; **Bower** on the Raleigh Hotel pool; **Roth** on Katsura Rikyu.
 r **February 2002** (Vol. 4, No. 2)
Marosz on project integration; **Moneta** on spa-edge details; **Affleck** on sculpture and water.
 n **March 2002** (Vol. 4, No. 3)
Holden on a retro-look design (II); **Morris** on wild water; **L'Heureux** on fountain lighting (I).
 n **April 2002** (Vol. 4, No. 4)
Oliver on multi-level flows and transitions; **Gutai** on pump basics; **Dews** on hiding headwaters.
 r **May 2002** (Vol. 4, No. 5)
Anderson on pond essentials; **Pasotti** on interactive waterplay; **Gibbons** on 'stellar' fiberoptics.
 r **June 2002** (Vol. 4, No. 6)
Altorio on civic fountains; **Gutai** on skimmers; **Beard** on working with landscape architects.
 n **July/Aug. 2002** (Vol. 4, No. 7)
Holden on retro details; **Dunn** on quality, mid-range pools; **Varick** on grand-scale watershaping.
 r **September 2002** (Vol. 4, No. 8)
Rosenberg & Herman on site-sensitive design;

Dirsmith on long-term design; **Gutai** on filters.
 r **October 2002** (Vol. 4, No. 9)
Copley & Wolff on modernizing fountains; **Bethune** on imitating nature; **Tisherman** on edgy colors.
 r **Nov/December 2002** (Vol. 4, No. 10)
Holden on Villa d'Este; **Hobbs** on Maya Lin's watershapes; **Phillips** on water in transit.
 r **January 2003** (Vol. 5, No. 1)
Fleming on high-end ambitions; **Harris** on decorative interior finishes; **Gutai** on surge tanks.
 r **February 2003** (Vol. 5, No. 2)
 The **Beards** on collaboration; **Yavis** on custom vinyl-liner pools; **Mitovich** on Microsoft's campus.
 r **March 2003** (Vol. 5, No. 3)
Fowler on habitats for marine mammals; **Benedetti** on outdoor kitchens; **Dews** on planting pockets.
 r **April 2003** (Vol. 5, No. 4)
Shoplick on watershapes as teaching tools; **Gutai** on water flow; **Schwartz** on Maya rockwork.
 r **May 2003** (Vol. 5, No. 5)
Zaretsky on sensory gardens; **Freeman** on hydraulic retrofitting; **Hanson** on water/stone sculpture.
 r **June 2003** (Vol. 5, No. 6)
Gunn on fountain whimsy; **Tisherman** on water-shaping for an art collector; **Holden** on tile.
 r **July 2003** (Vol. 5, No. 7)
Fintel on attracting birds; **Lacher** on structural engineering; **Alperstein** on golf course design.
 r **August 2003** (Vol. 5, No. 8)
Miller on site-specific fountains; **Gutai** on plumbing joints; **Holden** on period-sensitive restoration.
 r **September 2003** (Vol. 5, No. 9)
Hebdon on borrowing naturalism; **Ruddy** on indoor designs; **So** on modernist sculpture.
 r **October 2003** (Vol. 5, No. 10)
Mitovich on dry-deck fountains; **Roth** on liner issues; **Marckx & Fleming** on glass tile.
 r **November 2003** (Vol. 5, No. 11)
Holden on carved stone; **Shaw** on roles of consultants; **Forni** on period-sensitive renovation.
 r **December 2003** (Vol. 5, No. 12)
 Five-year article and topic indexes; five-year index for all columns, 1999-2003.
 r **January 2004** (Vol. 6, No. 1)
Ruddy on enclosures; **Lacher** on steel and concrete; **Forni** on water quality for natural watershapes.
 r **February 2004** (Vol. 6, No. 2)
Varick on nature and architecture; **Benedetti** on

Yes! Please send me copies of the issues I've checked in the list above!

(Issues are available for \$6 each)

r Enclosed is a check for \$ _____, payable to WaterShapes.

r Here is my credit card information, with authorization to cover my order total of \$ _____.

Please note: VISA or MasterCard ONLY!

Card Number _____ Expiration date _____

Name on Card (please print) _____ Signature (required) _____

Ship to: Name _____ Tel: _____

Company Name _____

Address _____

City _____ State _____ ZIP _____

Mail your completed form to WaterShapes, P.O. Box 306, Woodland Hills, CA 91365 – or fax it to (818) 715-9059

POOL SAFETY COVERS

Circle 135 on Reader Service Card



CANTAR offers Secur-A-Matic, an automatic safety cover system for swimming pools. Available in three basic configurations – recessed under track, recessed top track and deck-mounted top track – the line offers tamper-proof security with the turn of a key, strong construction, a clutch system that prevents damage to the cover and unit during operation, heavy-duty mounting brackets and UV-resistant fabrics. **Cantar**, Youngstown, OH.

MULTI-PORT BACKWASH VALVE

Circle 136 on Reader Service Card

JANDY has introduced a 2-inch side-mount multi-port valve that has been pre-plumbed for 45-degree piping to complement earlier models available with 90-degree piping outlets. The six-position, multi-port backwash valves are constructed of molded ABS material, have a durable lever-action handle and come with unions for waste, pump and return ports as well as filter-bulkhead unions. **Jandy**, Petaluma, CA.



CUSTOM BARBECUE ISLANDS

Circle 137 on Reader Service Card



NATIONAL POOL TILE GROUP offers designs and guidance for creating barbecue islands faced with porcelain tile, stucco or natural or artificial stone or brick. The islands are made using modular units for complete flexibility, working from a main grill component with stainless steel, professional-grade fixtures to a variety of extensions to fit any space and lifestyle. **National Pool Tile Group**, Anaheim, CA.

CONCRETE PUMP

Circle 138 on Reader Service Card

MULTIQUIP has introduced the Mayco LS Series of concrete pumps. With output volumes of 40 to 60 cubic yards per hour, the three pump models handle aggregates from 3/8 inch to 1-1/2 inches in diameter and have vertical pumping capabilities up to 300 feet and up to 1,200 feet horizontally. All come standard with a hopper remixer, a 10-cubic-foot hopper capacity and extra-strength grates. **Multiquip**, Carson, CA.



Create your environment.

PoolFog™

Complete systems from \$1500.
toll free 866-POOLFOG • www.poolfog.com

Circle 45 on Postage Free Card

Want to know
what's coming
in the next
issue of
WaterShapes?

Visit

www.watershapes.com

PUMP MOTORS

Circle 139 on Reader Service Card



EMERSON MOTOR TECHNOLOGIES has launched a new line of residential pump motors for applications that involve water in motion. Designed to drive jet pumps, booster pumps and more, the motors feature easy-access covers, easy impeller assembly or removal, corrosion-resistant finishes, five-point mounting, and switches that will never need adjustment. **Emerson Motor Technologies**, St. Louis, MO.

OZONE HANDBOOK

Circle 140 on Reader Service Card



DEL OZONE has published "EZ Ozone," a book-let on ozone technology written specifically for pool builders to help them work with consumers who have questions about ozone and its applications. The 30-page, four-color text covers ozone's history, current applications, action in the water and benefits, then goes into detail on its real-world performance, with approaches to installation and sales. **Del Ozone**, San Luis Obispo, CA.

POOL COPING

Circle 141 on Reader Service Card

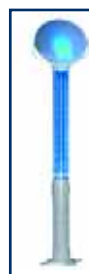


MARION CERAMICS offers a line of hard-fired clay coping bricks for use around swimming pools, spas and other watershapes. Highly durable and made for design flexibility, the natural-clay products are available in five common sizes and feature bullnose edges – including one style with a safety-grip detail. The complete line is available in seven colors, including Cobblestone Grey. **Marion Ceramics**, Marion, SC.

LED LIGHTING

Circle 142 on Reader Service Card

SPACE CANNON offers the Metamorphosis Eureka, a high-luminosity lighting fixture that renders the full range of colors in an array of indoor and outdoor lighting applications for parks, pathways, public fountains and more. Reliable and precise, the product's 31 emitters have service lives of 100,000 hours under normal operating conditions and offer instant light with full dimming capabilities. **Space Cannon**, Edmonton, Alberta, Canada.



Continued on page 62



Whether you're controlling a handful of 'leapfrog' jets, or thousands of jets choreographed to a musical score, we have simple, off-the-shelf control systems designed to do what you need. Not just a PLC, they are designed specifically for controlling fountains and shows. They are easy to program, even easier to use. Thousands are in use 24/7 worldwide. Systems start at just \$150.

Gilderfluke & Co. Inc.
205 South Flower Street
Burbank, California 91502
818/840-9484 Fax: 818/840-9485
doug@gilderfluke.com

Gilderfluke & Co. Inc.
East Coast/Florida Office
7041 Grand National Drive Suite 128D
Orlando, Florida 32819
407/354-5954 Fax: 407/354-5955

Need more
Information?

Use the Reader
Service Card

FACTORY BUILT WATER FEATURES



WWW.REPLICATIONSUNLIMITED.COM

* STANDARD MODELS RANGING FROM
5'W X 4'H TO 20'W X 8'H

* SHIPPED IN 2-3 MODULAR SECTIONS
THAT CAN BE INSTALLED IN A FEW HOURS

* VARIATIONS OF STANDARD MODELS AND
CUSTOM FEATURES AVAILABLE

* PROVEN 15 YEAR TRACK RECORD IN CUSTOM
RESIDENTIAL & COMMERCIAL APPLICATIONS

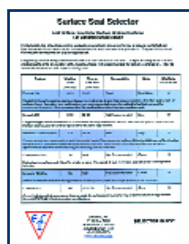
9200 LATTY AVENUE HAZELWOOD, MO 63042
PHONE: 314-862-1400 FAX: 314-721-2044



Circle 92 on Postage Free Card

CRACK REPAIR GUIDE

Circle 143 on Reader Service Card

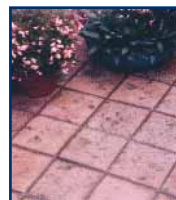


EMECOLE has published a guide to aid in selecting among its line of products for concrete-crack repairs. The sheet covers major performance features for each material – working time, time to injection, removability, color and mix ratio – and offers capsule descriptions of appropriate residential/commercial applications. All products are designed for low-pressure (up to 250 psi) injection repairs. **Emecole**, Romeoville, IL.

DIMENSIONAL SURFACING TOOLS

Circle 144 on Reader Service Card

CONCRETE IMPRESSIONS offers tools and products for use in coloring and texturing concrete surfaces. The tools help contractors create concrete surfaces that resemble adobe, Belgian cobblestone or slate, for example, using forms based on original materials. There are also imprinting tools for a variety of patterns, such as fish-scale fans, and a range of colorants, stains, sealers and more. **Concrete Impressions**, San Antonio, TX.



CHLORINATION SYSTEM

Circle 145 on Reader Service Card



PPG INDUSTRIES offers the Accu-Tab PowerBase AT chlorination system for commercial swimming pools. The unit is made for use with the company's calcium-hypochlorite tablets and features NSF-certified flow meters, valves, pumps, tanks and piping for safe and reliable use. Measuring only 20 by 29 inches, the chlorinator can handle pools holding up to one million gallons of water. **PPG Industries**, Pittsburgh, PA.

GREEN-FAÇADE FENCING

Circle 146 on Reader Service Card

JAKOB manufactures the Inox line of training systems for climbing garden plants. Durable, attractive and built with a few simple components for a strong architectural look, the wire-rope systems support plants – suckers, vines and the full range of climbers – as they grow to become green façades. The line includes stainless steel wall mounts, brackets, spacers, ropes and tension fittings. **Jakob**, Delray Beach, FL.



OTTERBINE AERATORS

THE INDUSTRY LEADER IN WATER QUALITY MANAGEMENT

AT OTTERBINE, we know that water quality is equally as important as aesthetics. That's why our Aerating Fountains:

- ♦ Reduce Algae, Odors, and Discoloration
- ♦ Deter Insects and Insect Breeding
- ♦ Offer 9 Truly Interchangeable Patterns
- ♦ Have the Highest Pumping Rates in the Industry
- ♦ Come With an Industry Best Warranty

For a complete listing of our products and services, Contact us at www.otterbine.com or 800-AER8TER!

Circle 104 on Postage Free Card

GENTLEMEN PREFER BRONZE (AND GENTLEWOMEN TOO)

6633

4742

6630

STANDPIPES

7670

DOLPHIN

5511

CASCADE

7631

LIONS HEAD

6033

FONT BASIN

3087

BANJO CATFISH

3326

STANDARD BRONZE COMPANY

172 West 5th Street *Atlantic* Bayonne, N.J. 07002

Phone: (201) 339-1351-2

Circle 42 on Postage Free Card

WATERPLAY FEATURES

Circle 147 on Reader Service Card



AQUATIC RECREATION CO. makes structures and ground sprays for interactive water play. Designed for easy installation, minimal maintenance and long-term outdoor use, the play features are made with structural plastics, fiberglass and stainless steel that is finished to resist treated water, UV degradation and fading. All structures are non-climbable, with no pinch points or sharp edges. **Aquatic Recreation Co.**, Minnetonka, MN.

WOOD-DECKING BROCHURE

Circle 149 on Reader Service Card



WESTERN RED CEDAR LUMBER ASSOCIATION has published a brochure for those interested in using Western Red Cedar in their outdoor landscaping projects. The full-color, 16-page booklet includes product photos as well as project ideas for everything from arbors, trellises and benches to planters, decks and gazebos. It also has product details and information on finishing. **Western Red Cedar Lumber Association**, Vancouver, British Columbia, Canada.

LIFEGUARD STATIONS

Circle 148 on Reader Service Card



PARAGON AQUATICS has introduced the Griff's Guard Station line. Designed to fit ideas advocated by lifeguarding expert Tom Griffiths, the three stand models have front entries, elevated viewing stations, non-skid surfaces and wide front steps – features that encourage the sit-stand-stroll philosophy Griffiths endorses. The stainless steel structures have wheels for easy transport and storage. **Paragon Aquatics**, LaGrangeville, NY.

GARDEN ANTIQUES

Circle 150 on Reader Service Card



AUTHENTIC PROVENCE has published a catalog on its line of garden antiques. The 24-page, black-and-white booklet covers the hand-crafted creations of artisans in the Provençal region of France that reflect the history and symbols of their region. It highlights hand-sculpted fountains in marble and limestone, reliefs, sundials, urns, planters, vases, stone tables, garden ornaments and more. **Authentic Provence**, West Palm Beach, FL.

Continued on page 64

www.coverstar.com

We've Got Quality Covered.

Coverstar automatic pool covers are the highest standard of quality in the industry. Check out our latest interactive CD with hundreds of quality pool designs and a great new product video.

Call Now for Your Free CD
1-800-617-7283

COVERSTAR
The Highest Standard

Circle 11 on Postage Free Card

EARTH-MOVING RIGS

Circle 151 on Reader Service Card



CATERPILLAR introduces TH220B and TH330B, two new telehandlers in its B-Series line. The units offer responsive handling, improved fuel efficiency and reduced maintenance requirements along with new controls for easier operation and more work tools and options for greater versatility. The bucket linkage provides high breakout forces for digging with five available bucket styles. **Caterpillar**, Peoria, IL.

TRIPLE-CELL SAND FILTERS

Circle 152 on Reader Service Card

NEPTUNE-BENSON offers the STC/DTC Series of triple-cell sand filters for high-capacity water filtration. Each of the three stacked cells has its own influent and effluent connections – no standpipe required – and features 14-by-18-inch manways for safe, easy access. Filter areas range from 28.8 to 235.6 square inches, with flow capacities from 144 to 4,712 gallons per minute. **Neptune-Benson**, West Warwick, RI.



OUTDOOR LIGHTING LITERATURE

Circle 153 on Reader Service Card



KICHLER LANDSCAPE LIGHTING has published "Paint the Night," a brochure highlighting its line of path, spread, accent and deck fixtures. Made of aluminum, copper, brass and stainless steel, the fixtures are weather-safe and designed for outstanding aesthetics. The brochure illustrates more than 80 models for 12- and 120-volt applications and includes design tips and ideas. **Kichler Landscape Lighting**, Cleveland, OH.

ECHO-CONTROL PANELS

Circle 154 on Reader Service Card

ILLBRUCK ARCHITECTURAL PRODUCTS offers Sonex panels to control the echoes and reverberations that arise during indoor aquatic exercise classes, hydrotherapy and recreational swimming. The easy-to-install acoustic panels mount flush to ceiling decks using adhesives, screws and washers and resist both heat and humidity while delivering superb acoustical control. **Illbruck Architectural Products**, Minneapolis, MN.



Introducing "YellowJacket®" From Roman Fountains !



Stop cutting your submersible cables to pieces! Install the "YellowJacket®" underwater plug. Save time, money & misery!



CALL 1-800-794-1801

Roman Fountains Corporation
America's Fountain Company!
www.romanfountains.com

Circle 67 on Postage Free Card

ATTENTION ALL READERS!



Many of you have asked why you need to fill out subscription cards if no information about your business has changed. Here's why:

We are required by the U.S. Postal Service and the Bureau of Publication Audits to be able to prove, with your signature on a card, that you asked to receive the magazine and that you are a watershaper.

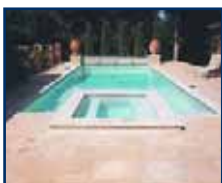
If we don't hear from you *once each year*, you run the risk of being cut off our subscriber list. And it can happen even if you have received every issue we've ever published.

This is important, so take a minute once each year to complete one of the subscription card we include in every issue of the magazine and mail it to us. Thanks!

WATER SHAPES

HANDCRAFTED PAVERS

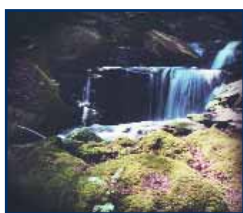
Circle 155 on Reader Service Card



STONECREEK PAVERS manufactures pavers by pouring material into forms and then shaping the edges by hand. Designed to conjure the look and texture of Italian crosscut travertine, the pavers work in both interior and exterior applications and are available in seven standard sizes for easy patterning. The company also offers design services as well as guidance on sealing and maintenance. **Stonecreek Pavers**, Nashville, TN.

GROUND COVERS

Circle 157 on Reader Service Card



MOSS ACRES offers moss ground covers as an alternative to grass and other conventional ground covers for shaded areas. Once established, the product calls for little or no maintenance – no mowing, watering, pesticides, fertilizer, liming, de-thatching or weeding required. Detailed transplanting

instructions are included, with information on soil pH, composition and moisture requirements. **Moss Acres**, Honesdale, PA.

OUTDOOR WATERPLAY PRODUCTS

Circle 156 on Reader Service Card

MOST DEPENDABLE FOUNTAINS offers products designed for interactive water play. The products come in nine powder-coated colors and operate by using metered valves that can be set to run from 15 seconds to 5 minutes in flows that range from gentle sprays to strong spouts. Individually, they make great cooling-off spots; together, they turn plain spaces into waterparks. **Most Dependable Fountains**, Arlington, TN.



CLAY PAVERS

Circle 158 on Reader Service Card

BORAL PAVERS offers clay pavers for use in both interior and exterior spaces for commercial or residential settings. Designed for ease of installation, fine aesthetics and strong, durable performance, the interlocking units come in 11 different, non-fading colors in a 4-by-8-inch size with tumbled, chamfered or squared edges. There's also a slightly smaller format for use in grouted applications. **Boral Pavers**, Augusta, GA.





REGAL



WATER GARDEN LINERS

Wholesale Only

Flexible PVC 20 & 30 Mil EPDM Liners 45 Mil Standard & Custom Sizes Available

9342 W. Reno
Oklahoma City, Ok. 73127

TEL:(800)444-7755
Fax:(405)787-3211

Circle 51 on Postage Free Card



ULTRA POLY ONE COAT™

"Do it Once... Do it Right!"

Coat your concrete pools with Ultra Poly One Coat® and complete the coating process in ONE DAY!

Once only available to industrial contractors, this proven hybrid epoxy is now available to you!

- One coat coverage – you've GOT to try this! NO second coats needed.
- Easy to mix and apply – use standard painting tools and techniques.
- Smooth, tile-like finish – Create a gorgeous pool!
- Easy surface preparation – Only a high pressure wash is necessary!
- Maintains that "blue pool" sparkle for a years!
- Will not chip, crack or peel – Avoid costly repairs and replacements.
- Engineered for coating green concrete – complete projects FASTER!
- No fumes (VOCs) – Easy to ship and store AND environmentally friendly.
- No odor – make painting crews and customers happy.

Call now to try Ultra Poly One Coat® on your next project.

Distributorship
Opportunities
Available

724-449-1040

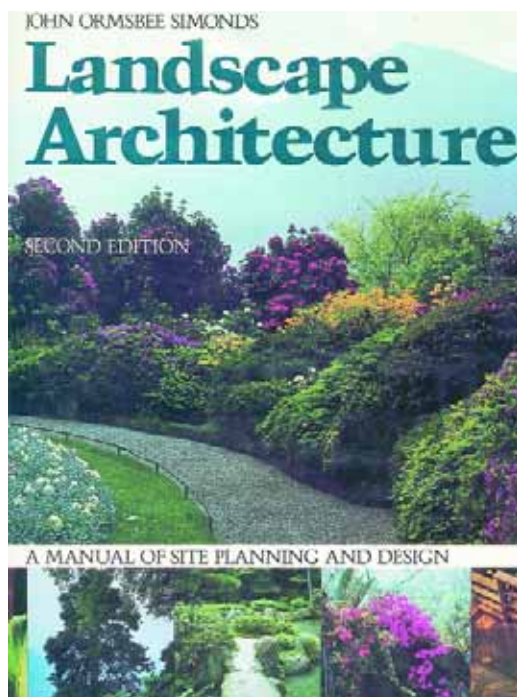
Poly Solutions, Inc • 230 Laurel Avenue • Gibsonia, PA 15044

email: ultrapoly@zoominternet.net visit our website: www.polyolutionsinc.com

Circle 116 on Postage Free Card

By Mike Farley

Site Lines



It's painfully obvious that many mainstream watershapers are satisfied to treat each site in basically the same way. By contrast, I go to great lengths to examine each space from a variety of perspectives, and the fruits of that effort are reflected in the design work that follows. In fact, if I had to point to a single aspect of my design work that most often sets me apart from my competition, it's the detail I go into when examining a site.

Certainly the best book I've ever read about site planning and analysis is the one I first encountered during my second year in college. Written by John Ormsbee Simons, a distinguished instructor at Harvard Design School and Michigan State University, *Landscape Architecture: A Manual of Site Planning and Design* (McGraw Hill, 1983) is one of the most complete treatments of the complex subject of site analysis you'll ever find.

Fortunately, the text has been used in so many landscape architecture and design programs throughout the country that you should have no problem finding one either new or used, despite the fact it's a good 20 years old.

The genius of Simons' approach – and the reason why it's been such an enduring resource – is that he looks at the basic principles of site analysis across the full spectrum of possible projects, from entire communities to the smallest courtyards or patios. His writing is also remarkably clear, and the beautifully organized, 330-page text is filled with helpful graphics, sketches and photographs.

Much of the text deals with lines of sight, focal points and the use of views – material alone that can give you a huge edge in all sorts of situations. In my own work, for example, clients often remark how impressed they are at how

visible the swimming pool and other elements of the landscape are from a variety of vantage points inside and outside the home. That doesn't happen by accident, and frankly, I owe much of it to this remarkable book.

Simons also goes into great depth on working with sunlight, shade and shadows, wind and such key issues (too seldom considered) as humidity and the seasons. He also devotes considerable space to practical issues, including working with utilities, concrete slabs and basic structural engineering issues as well as retaining walls and slope retention. He offers keen insights into working with existing structures and on designing decks, patios, terraces and balconies.

There's a wonderful section on understanding and working with the way that people move within a space, where his eye for detail extends into such specifics as how to set up pathways and stepping stones – right down to how big the stones should be and how much space there should be between them. He even gets into the basics of setting up driveways and parking areas, including information about how wide they should be, proper radiuses and pedestrian access.

Best of all from a watershaper's perspective, Simons uses many pages to discuss water, from large bodies to small fountains. He covers streambeds, their width and depth; approaches to cascades and edge treatments; and a variety of other issues directly significant to most anyone who works with water as a creative medium. He also touches on the solid practicalities of drainage, runoff, irrigation and, of course, the water needs of various types of plantings.

If you had to give someone new to landscape or watershape design a single resource for site planning and analysis, this would be it: Simons' book is quite simply a marvel of a resource that this experienced watershaper has found himself returning to over and over again through the years.

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

THE **ULTIMATE** POOL DESERVES THE **ULTIMATE** POOL COVER

A SAFETY, SOLAR, AND WINTER COVER COMBINED INTO ONE



©2004 Cover-Pools, Inc.

The Save-T Cover II[®] automatic pool cover by Cover-Pools protects against unwanted entry into the pool.

Reduce drowning risk and save up to 70% on water, heat, and operating costs with the turn of a key.



Freeform? Water feature? Rectangular? Vanishing edge? You'll find an option to complement whatever design you create.

Visit our website or call for details about customized pool cover options for concrete, vinyl, and fiberglass pools.



Automatic and Manual
Save-T[®] Pool Covers

1-800-447-2838
www.coverpools.com

Circle 8 on Postage Free Card



- Pumps
- Filters
- Laars Heaters
- Air Energy Heat Pumps
- Control Systems
- Lights
- Water Purification Systems
- Valves
- Water Features
- Cleaners
- Accessories

ALL JANDY PRODUCTS WORK SEAMLESSLY TOGETHER



The Jandy AquaLink® RS Control System manages our complete line of technologically advanced products.

The Jandy system is designed to create a carefree backyard paradise — enhancing the overall pool and spa experience by delivering performance and reliability through technology.



*Performance
Reliability
Technology*

Now Including
ClorMatic® Salt
Chlorine Generators
— Managed by the Jandy
AquaLink® RS Control System

The Jandy System

Delivering Performance, Reliability and Technology

Jandy offers a complete line of pool and spa products to meet all of your equipment needs. Pumps, Filters, Laars Heaters, Air Energy Heat Pumps, Controls and Valves are all part of the Jandy System. Each component of the Jandy System is designed to work at its maximum operating efficiency when partnered with other Jandy products.

Choose Jandy for all of your equipment needs!

Circle 96 on Postage Free Card

USA: 707.776.8200 • OUTSIDE USA: 905.844.3400

www.jandy.com • info@jandy.com • ©2004 Water Pik Technologies, Inc.