

Inside: David Tisherman on 'Thermal Ledges'

# WATER SHAPES

Design • Engineering • Construction

Volume 3  
Number 6  
July / August 2001  
\$5.00

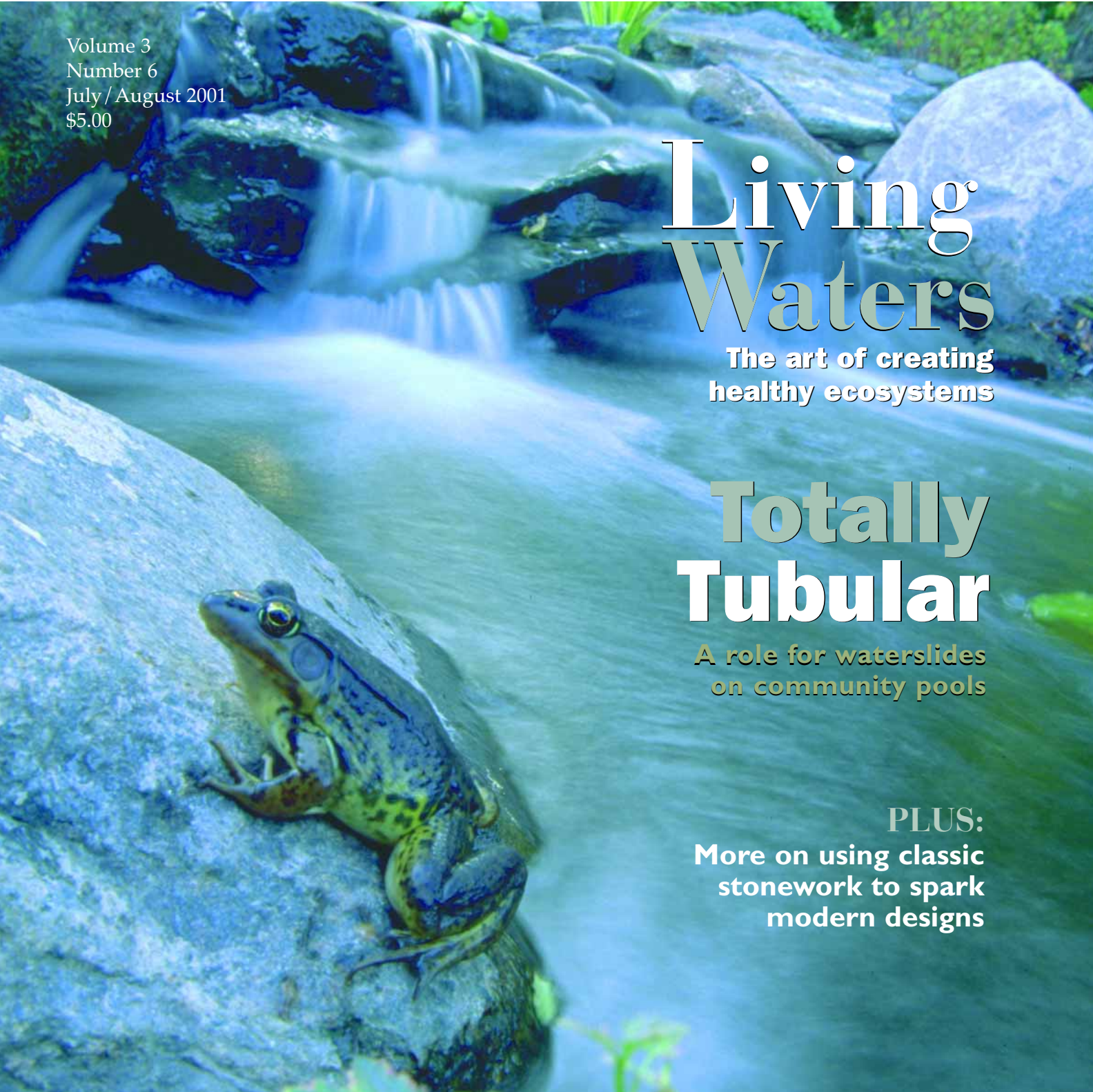
## Living Waters

The art of creating  
healthy ecosystems

## Totally Tubular

A role for waterslides  
on community pools

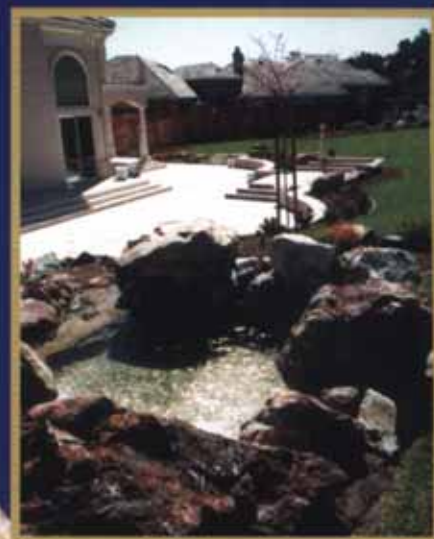
**PLUS:**  
More on using classic  
stonework to spark  
modern designs



Western Rock  
& Boulder  
INCORPORATED

# If rocks could dream

Designing and building awe-inspiring landscapes requires vision, skill and a world-class supply of rock & boulders



Western Rock & Boulder...the stuff that dreams are made of.

Circle 67 on Postage Free Card

#### DELIVERING TO YOUR JOB SITE

We take the hassle out of shipping. All of our rocks and boulders are shipped directly to your job site. Our prices include shipping within the Continental United States.

**Western Rock & Boulder, Inc.**

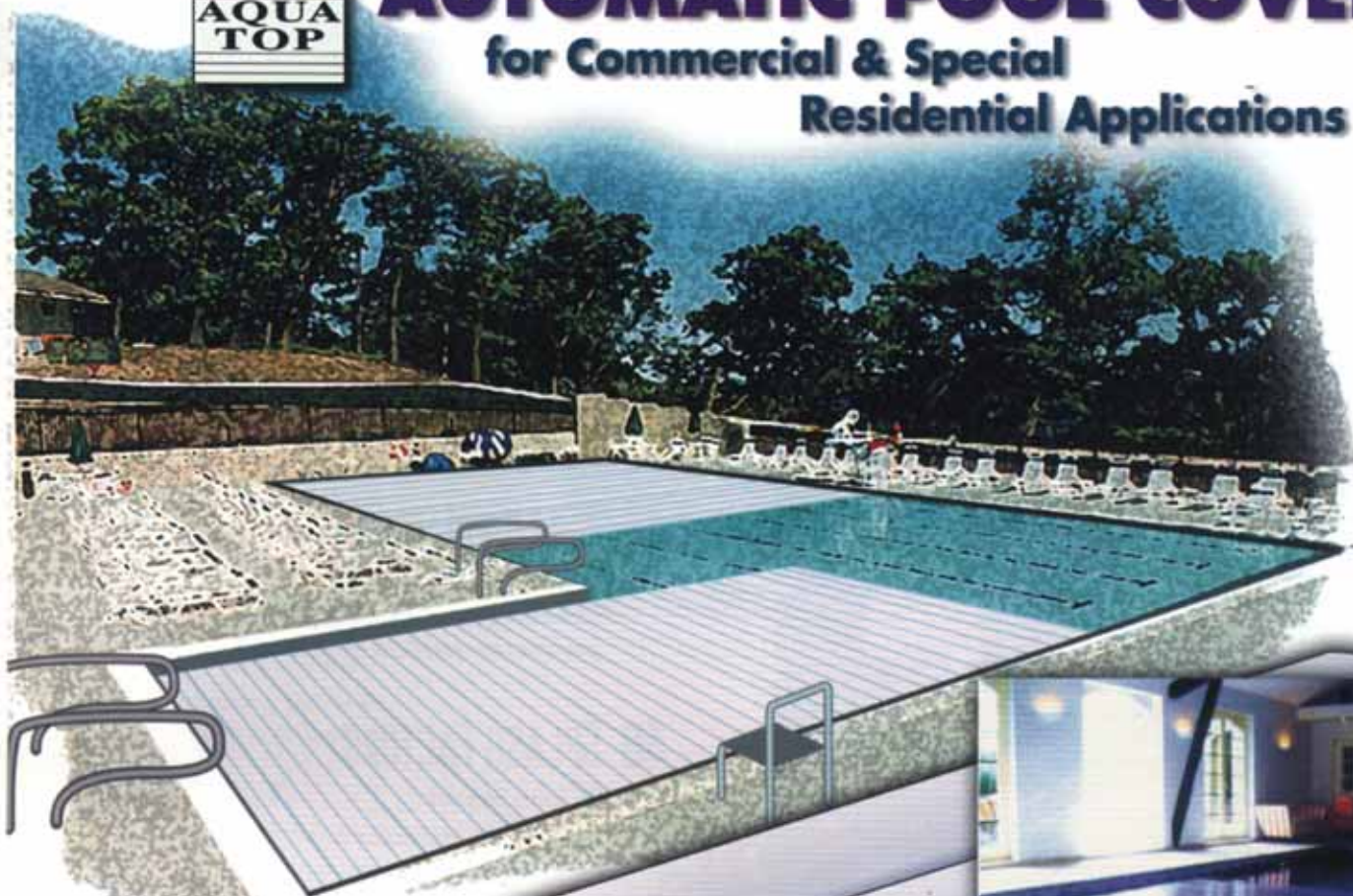
Toll-free 1-877-BUY-A-ROCK (1-877-289-2762)

[www.westernrock.com](http://www.westernrock.com)

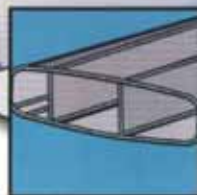
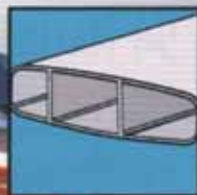


# ENERGY SAVING SOLAR AUTOMATIC POOL COVERS

for Commercial & Special  
Residential Applications



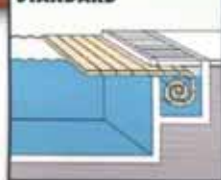
Design Concept by Garter Aquatech Pools, MI



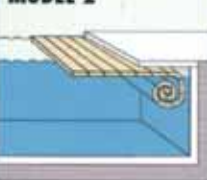
This superb and mature German technology used on European Pools for the last 30 years now made available, modified and ready for the US market and supported by trained personnel of Aquamatic Cover Systems.

**CONTACT:** For engineering and custom application data, pricing and special quotations contact: Tom Dankel — V.P. or the staff at Aquamatic

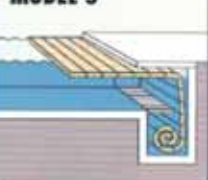
STANDARD



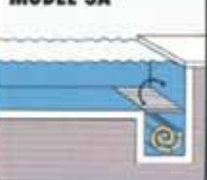
MODEL 2



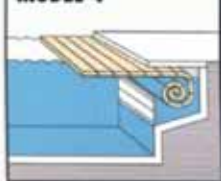
MODEL 3



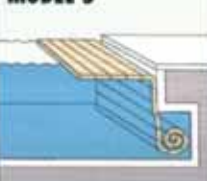
MODEL 3A



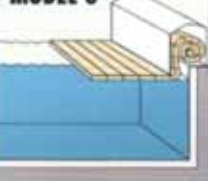
MODEL 4



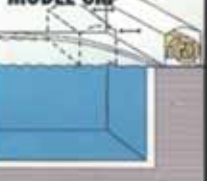
MODEL 5



MODEL 6



MODEL 6M



**Aquamatic Cover Systems**

**AUTOMATIC & MANUAL COVERS SINCE 1980**

200 Mayock Rd. - Gilroy, CA 95020  
800-262-4044 / 408-846-9274  
800-800-7067 / 408-846-1060  
[www.aquamaticcovers.com](http://www.aquamaticcovers.com)  
[info@aquamaticcovers.com](mailto:info@aquamaticcovers.com)

**AQUA-TOP** is a product of T&A bvba, Belgium, which is owned in part by Aquamatic Covers Systems, CA USA

Circle 10 on Postage Free Card

28



40



## FEATURES

### 28 REFINEMENTS IN STONE

By Bobbie Schwartz

**Past masterworks as guides to today's designs**

### 40 PRECISION ON DECK

By Doug Ruthenberg

**Checking in on a turnkey perimeter-overflow system**

### 48 SPLASH FACTORS

By John Stupfel

**Waterpark attractions on a public-pool scale**

### 54 NATURE'S BALANCE

By Jeff Rugg

**Healthy, clean water for plants and animals**



54

## COLUMNS

### 6 STRUCTURES

By Eric Herman

**Appreciating  
the power of ideas**

### 10 AQUA CULTURE

By Brian Van Bower

**Aligning a new  
trade community**

### 18 NATURAL COMPANIONS

By Stephanie Rose

**Setting the table  
with edible plants**

### 22 DETAIL #9

By David Tisherman

**Keys to installing  
'thermal ledges'**

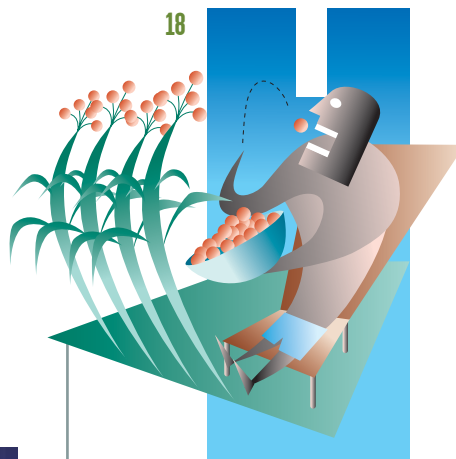
### 70 BOOK NOTES

By Mike Farley

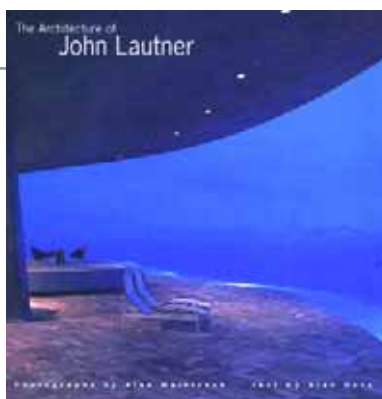
**Exploring the  
work of John Lautner**



10



18



70

## DEPARTMENTS

### 8 IN THIS ISSUE

### 60 ADVERTISER INDEX

### 60 OF INTEREST INDEX

### 62 OF INTEREST

**On the cover:**  
Photo courtesy Pond Supplies of America,  
Yorkville, Ill.

WATERSHAPES (ISSN 1522-6581) is published monthly with combined issues January/February, July/August and November/December 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.

## Powerful Influences

There's a new wrinkle in this issue of *WaterShapes*.

Just inside the back cover, you'll find "Book Notes," a brand-new column by landscape architect and watershape designer Mike Farley of Leisure Living Pools in Frisco, Texas. This addition to our roster of regular columns will focus on an assortment of books that have served Mike as important influences and ready references throughout his design career.

What he's offering is much more than a book report or review. You won't find negative comments, and you won't find discussions of books that don't interest him or that haven't served him well in his career. Instead, what you'll find are his personal comments of a limited selection of what he considers to be truly valuable, utterly indispensable books for the designer – "volumes that speak volumes," you might call them.

The idea here is to throw some light on the riches available in print to everyone in the watershaping trades. Some of the books are classics; others are newer books that will someday reach that status. In every case, his comments are offered in hopes of guiding you to ideas and influences that will stoke your creativity – and perhaps inspire you to dig deeper when a book or designer or style captures your imagination.

This vein of information is so rich, in fact, that it's hard to believe that some of this stuff isn't seen as required reading for anyone designing watershapes of any kind.

And make no mistake, this sort of "exploration of influence" isn't strictly for designers of high-end custom watershapes: Professionals working at *all* levels of the watershaping trades stand to benefit from information to be found in "Book Notes."

Consider an upcoming issue's coverage of a book on Frank Lloyd Wright. Often mentioned in this magazine, he's without question one of the greatest architects and designers of all time – and part of his greatness is the fact that he has influenced countless other designers who are not nearly so well known but who make use of his guiding principles.

His use of natural light, spatial continuity and horizontal geometry (along with countless other signature points of his highly creative "organic architecture") have all influenced an enormously broad range of architects and designers. Indeed, our world has been shaped in more ways than we can count by the ideas of this one man. And the same thing can be said to differing degrees of many of the other architects and designers who will be featured in Mike's columns.

We offer the information with the thought that there's no way of knowing how powerful an idea or set of ideas can be until it reaches other open-minded, creative people. So dig in and enjoy!



# WATERSHAPES

## 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

## Director, Marketing and Sales

Stephanie Behrens — 818.715-9776

## National Sales Manager

Camma Barsily — 310.979-0335

## National Sales Representative

Sherry Christiaens — 505.421-3100

## 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](mailto:main@watershapes.com)  
website: [www.watershapes.com](http://www.watershapes.com)

© Entire contents copyright 2001. 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.





# Don't miss the Biggest Trend in Pool Design

What can we offer the  
Custom Pool & Water Feature Builder?  
The Best F.R.C. (Fiber Reinforced Cement)  
Boulders & Rock Cliff Panels Available

Realize Larger Profits on your projects  
Buy Direct from the Leading Manufacturer  
of Artificial Rock Products  
Lightweight—No Heavy Equipment Needed



Large Selection in Stock

- ✓ Buy Direct from Manufacturer
- ✓ Lightweight—No Crane needed
- ✓ Worldwide Shipping
- ✓ Technical Advice Available

See our web site catalog at  
[www.rock-n-water.com](http://www.rock-n-water.com)



Take Advantage of Our Experience...

Rodger Embury, President

Rock & Water Creations, Inc. • 815 Fifth St. • Fillmore, CA 93015

tel 805.524.5600 • fax 805.524.7339 • e-mail [info@rock-n-water.com](mailto:info@rock-n-water.com)

Circle 21 on Postage Free Card

**Bobbie Schwartz** is a landscape designer, consultant, lecturer and writer – professions that have made her well traveled in pursuit of excellence in garden and watershape design. She founded her full-service design business, Bobbie's Green Thumb, in 1977, and her residential, institutional and commercial designs have been recognized by awards from the Perennial Plant Association, the Ohio Nursery & Landscape Association, the Ohio Landscapers Association and the Cleveland Botanical Garden/ASLA. Schwartz participates in several trade associations on the national, state and local levels and currently chairs the Certification Committee for the Association of Professional Landscape Designers.

**Doug Ruthenberg** is general manager of Polaris Water Designs, a division of Polaris Pool Systems of Vista, Calif. He has been involved in the design and construction of swimming pools and spas for more than 30 years and has, for the past nine years, designed and built waterfeatures for a variety of commercial and residential clients. Most recently, Ruthenberg developed the Edge Control system as an alternative to traditional gutter designs.

**John Stupfel** is founder and president of Aquatic & Site Technologies, a manufacturer of tube waterslides in Portland, Ore. He established the firm in 1995 with a focus on manufacturing affordable and safe waterslides for a variety of commercial, municipal and residential swimming-

**Call Spectrum  
for All Your  
Aquatic Needs.**



*Now available the  
Spectrum 2001  
Aquatics Catalog.*



**1-800-776-5309**

E-Mail: [info@spectrumproducts.com](mailto:info@spectrumproducts.com)  
Web Site: [www.spectrumproducts.com](http://www.spectrumproducts.com)

**SPECTRUM  
AQUATICS**

7100 Spectrum Lane  
Missoula, MT 59808

Circle 14 on Postage Free Card

Interested in writing for WaterShapes on design, engineering or construction topics? Contact Eric Herman at (714) 449-1996!

pool operators and owners. Before entering the watershaping trade, Stupfel was group vice president of administration for a diversified holding company in Portland.

**Jeff Rugg, ASLA**, is a writer, educator and consultant on landscaping and water gardening and an employee of Yorkville, Ill.-based Pond Supplies of America. He holds degrees in science, zoology, horticulture and landscape architecture and uses his many interests to help others learn about nature. Before joining Pond Supplies of America, he managed garden centers in Texas and Illinois and once owned his own water-garden and wild-bird store. His weekly newspaper column, "A Greener View," is syndicated nationally in as many

as 400 newspapers, and his articles and photographs have appeared in *Pond Keeper*, *Water Garden*, *Landscape Contractor*, *Ponds USA*, *American Nurseryman* and other publications.

**Mike Farley** is a landscape architect with 20 years of experience and is currently a design/project manager for Leisure Living Pools of Frisco, Texas. After receiving his degree in landscape architecture from Texas Tech University, he began his career in California with a high-end landscape-design firm through which he became involved in several pool-remodeling projects. He later joined Geremia Pools in Sacramento, Calif., where he worked for six years before joining Leisure Living Pools in 1998.

# Essential Minerals.

Jack's Magic™ the only complete line of swimming pool stain removal and prevention products.



Fiberstars Catalyst by Jack's Magic. A mineral-based water conditioning system which will give you simply the best water, fewest chemicals and least work. Model 3001 - designed for new pool construction.

**jack's  
magic™**

**the pool solution™**

4625 East Bay Drive, Suite 110  
Clearwater, FL 33764  
800-348-1656  
[www.jacksmagic.com](http://www.jacksmagic.com)

Circle 23 on Postage Free Card



## In Search of Community

**T**hrough the past 50 years, the watershaping industry has evolved from a small, elite group of contractors serving the needs of a small, elite group of consumers to become a vast industry whose services are in demand across a wide range of socio-economic levels. In fact, it's probably fair to say that in these most recent years of prosperity, watershapes are being sold to more people across broader economic bandwidths than ever before.

Yet for all this demand and the innovation that's been happening, I don't see unity. Instead, I see a massive, diverse "industry" (*definitely* in quotation marks) with scores of niche organizations, geographic enclaves and specific interests, each moving forward without the benefit of any sort of cohesive leadership, compelling voice or collective vision.

I find this strange and disconcerting, because nearly every great industry has had effective leadership that has been able to move agendas forward with in some form of organizational structure.

As much as we Americans love our rugged individualism, collective ef-

**Collective efforts exist for the simple reason that there are some things a group can do that individuals cannot, from influencing government and dispensing ideas and education to providing a forum for marketing services and technology.**

forts exist for the simple reason that there are some things a group can do that individuals cannot, from influencing government and dispensing ideas and education to providing a forum for marketing services and technology. To achieve these goals industry-wide, in other words, organizations and industries need direction, purpose and leadership.

At this moment, I believe the watershaping trades are definitely lacking in these key areas.

### Scattered About

Has the time come to look at the way things are, step back and consider what could happen to change things? I think so. I think it's also time to start conversations about what kind of structure would best serve our industry's diverse and far-flung needs.

It's not my intention to point fingers at any particular group of people, any particular segment of the industry or any particular organization. I'm not familiar with all of them, and I have solid emotional ties to the two I've known well, namely the National Spa & Pool Institute and the Associated Swimming Pool Industries of Florida.

I just think it's time to acknowledge the fact that—for a variety of reasons in this era of tremendous change—we have seen ourselves become scattered and even alienated from one another. And when you step back and look at it, this lack of connection really isn't a surprise. Just consider the array of issues and trends in play right now:

❑ **Changing consumer desires:** All of this malaise starts with the fact that the demand for water is much different, much greater and far more diverse now than it once was. It seems that every set of plans I look at these days includes not only a pool and spa, but also a fountain and a Koi pond

Continued on page 12

***We Heat It.***



***We Clean It.***



***We Pump It.***



**Enjoy the Water**

Pool and Spa System Developers  
and Specifiers love us, because  
we're their single source for  
efficient, attractive, quality large  
pool systems – that's

**Pentair Pool Products.**

***We've got the products.***

***You fill the pool.***



**Pentair**  
*Pool Products*

*Because **reliability** matters most*

1 - 8 0 0 - 8 3 1 - 7 1 3 3  
[www.pentairpool.com](http://www.pentairpool.com)

Circle 49 on Postage Free Card

Continued from page 10

and a reflecting pool – and that's only a slight exaggeration.

This is a time of remarkable growth that is drawing out creativity on the part of the trade and its consumers. And while that is certainly a wonderfully positive trend, it also means that many people are doing new and different things in their work and are sometimes operating out of their comfort zones as they face new

and ever-changing challenges.

□ **The melding of trades:** With this diversification in the demand for water-shapes has come a diversification of those in the business of providing them. As has been mentioned countless times in this magazine, the traditional pool/spa trades and the mainline landscaping trades are converging and interweaving to a greater extent than ever before.

Again, I see this as a positive trend, but it's one that complicates the picture tremendously with respect to how the trade should be organized – and for what reasons.

□ **Consolidation of manufacturing and distribution:** The economic prosperity in recent years has spawned a vigorous spate of mergers and acquisitions and tremendous consolidation of resources on the manufacturing and distributing levels.

Where there were half a dozen companies serving a specific niche or area ten years ago, in many cases there is now only one supplier or distributor. This centralization has dramatically altered the economics and operations of the supply side of our industry.

□ **Globalization of markets:** Buying and selling across international lines and communication via the Internet across the globe have expanded the watershaping trades in a variety of directions.

There are more products available from overseas than ever before, and I believe many of us are discovering the vast world of creative influences that exist abroad. This trend puts pressure on organizations to evolve and remain relevant in today's broadening markets.

These factors are all, in my view, positive and are serving to drive our businesses to new heights of creativity and excellence. But other factors at work in today's business environment are not so positive in nature:

□ **Liability issues:** Recent developments in the courts having to do specifically with the swimming pool industry (coupled with our society's reliance on the courts to assign blame in matters of plaintiffs' personal behavior) mean that watershapers of all sorts – *not* just pool builders – are more exposed to lawsuits than ever before. This cuts to the matter of trade associations' roles in writing standards – a truly complex and baffling issue that just seems to get scarier all the time.

□ **Government regulations:** I'm not one who believes that government should be prevented from having any role whatsoever in regulating industries, but there's little doubt that some forms of government regulations can be extremely intrusive and detrimental to business. Providing a collective voice to influence the direction of government is a major

## CONCRETE - FIBERGLASS - VINYL



## RECTANGULAR OR FREEFORM



*Cover-Pools can accommodate any style, shape or design feature while providing safety, strength and quality.*

### Standard Features

water-resistant electric motor • patented auto-adjustment feature  
no shear pins • lifetime warranty on drive mechanism  
non-electrical auto cover stop • no hassle fabric warranty  
seven standard fabric colors

### Optional Features

single drive hydraulic power option • new wireless touch control  
water feature control system • colored extrusions  
35 custom fabric colors • vanishing edge pool system  
walk-on Vanishing Lid®



Call Cover-Pools Today!

**800-447-2838**

Visit our Web site [www.coverpools.com](http://www.coverpools.com)

Circle 8 on Postage Free Card

function — one that needs to be addressed by a whole industry.

□ **Margin selling:** There are different ways to compete in a free market, and as I've said before in these pages, competing on price and price alone is bad for business. One of the things that can happen with a responsible trade association is an influencing of the culture and values within a trade to emphasize things such as quality and creativity as the basis for competition.

### Here, There and Everywhere

With all these trends (and more) at work these days, it's easy to see how and why our business environment has become so complicated.

Now consider the vast tapestry of associations we have at our service: There's NSPI with its national office and councils, committees, regions and chapters. There's the American Society of Landscape Architects and the Association of Professional Landscape Designers and their subgroups. In larger markets, there are local organizations at the service and retail levels. There's IPSSA, UPSA and a host of others. There are also builders' buying and marketing groups.

As one who's participated for years and years in NSPI on the national, regional and chapter level as well as with ASPI of Florida, I've seen how these groups work on all levels. Without going into the details and specifics, I can say that on both the national and local levels these groups are having their problems.

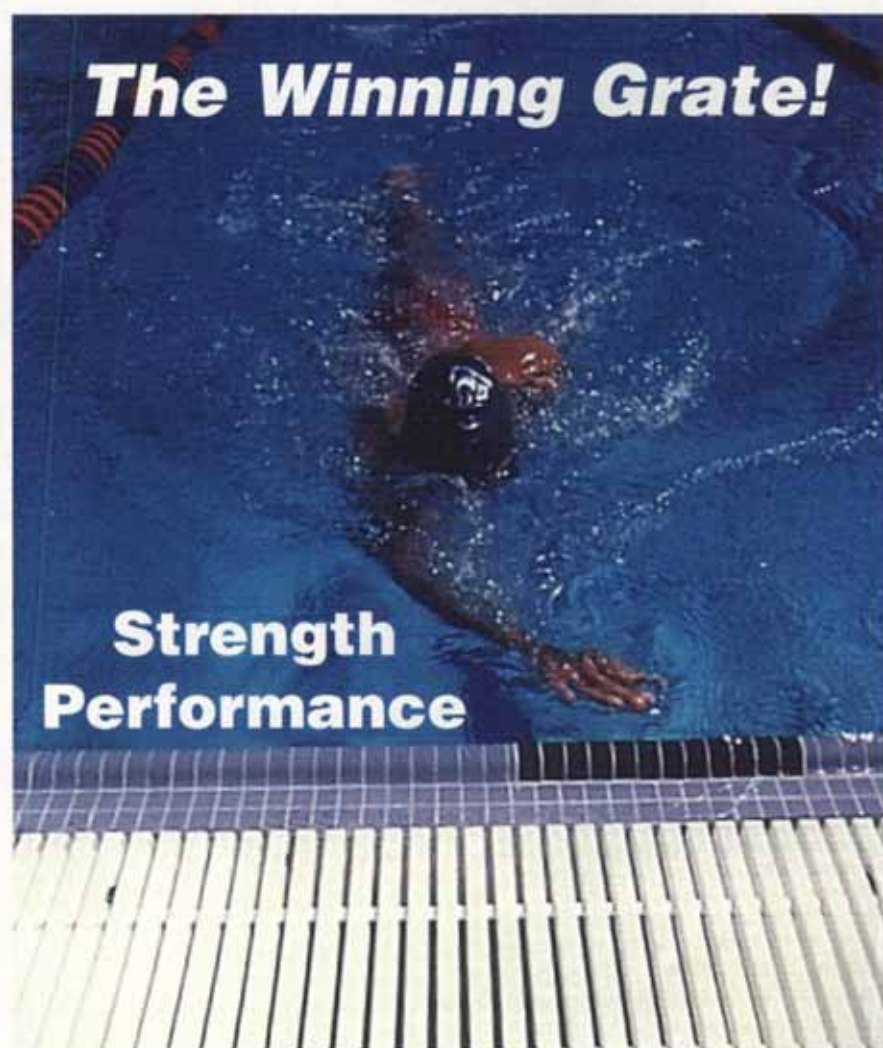
For NSPI, the most tangible evidence of this trend can be seen with its international expo. There was a time when this was a tremendously exciting, can't-miss event, and I would never have even considered not going. Now and for the past couple years, however, I'm not so sure, and it's clear that many exhibitors and prospective visitors are having the same misgivings about the value of attending. At the least, exhibitors are now weighing the amount of money they're spending against the business benefits they're seeing, and rightfully so.

I sense the same decline in energy and enthusiasm on the local level. I still feel a certain attachment and loyalty to these groups and especially to my friends in these organizations, but in terms of as-

sessing the groups' continued utility and purpose, it's all very unclear and uninspiring. And based on my conversations with other members of these groups and others, my sense of what's going on isn't isolated to one organization or geographic area or level of participation.

What I find so amazing is that this malaise is occurring at a time when business is good and most of the major trends

**There's never been a time like this, filled with opportunities we couldn't have imagined even ten years ago — and it's clear that our trade organizations haven't kept pace.**



GRATE TECHNOLOGIES, INC.

**Grate Technologies, Inc.**  
3550 Westview Drive #101  
Naples, FL 34104

**(941) 435-3700 phone**  
**(941) 435-3708 fax**

**[www.gratetech.com](http://www.gratetech.com)**

Circle 22 on Postage Free Card

driving our businesses are both positive and exciting. There's never been a time like this, filled with opportunities we couldn't have imagined even ten years ago – and it's clear that our trade organizations haven't kept pace.

### Blue Skies

So, how do we steer our organizations in a more positive direction, one that

meets the needs of the vast spectrum of businesses working under the watershaping umbrella? I wouldn't have started this column without a suggestion to offer, so here goes:

I believe it's time for a change and for NSPI to re-invent itself as a brand-new watershaping organization – or for an entirely new national trade organization to take its place. Let's call this outfit the

Society of Watershapers, or SOW. (That's not the most attractive of acronyms, but it'll do for now.)

I see SOW as a loose federation of smaller, geographically organized, niche-specific organizations that have practical ties to the big umbrella association. This international entity would exist for three specific reasons: to satisfy the watershaping industry's need for unified, coherent government relations; to unify provision of information and education for the industry; and to organize and host a national or truly international gathering to bring watershapers together on a regular basis.

SOW would be all-inclusive, welcoming anyone who's involved in watershaping on any level. The primary requirement for membership would simply be an interest in belonging, and there would be no attempt on the part of SOW to market the value of dealing with SOW members to potential clients.

The umbrella organization would stage an international show to provide a forum for manufacturers and give them direct access to all industry segments. From the individual member's standpoint, SOW would provide a unifying presence and networking opportunities to the broadest possible range of professional organizations, local or regional. In short, it would bring together under one roof all of those professionals who are engaged in the creation of watershapes.

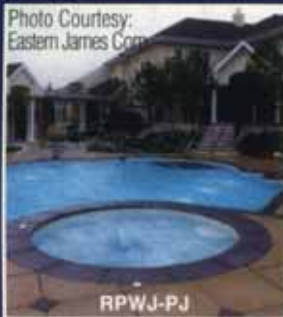
SOW's participating organizations would exist within this structure while retaining autonomy, their own by-laws and their own standards and requirements for membership. The ones that are already serving their members well will thrive; those that aren't will eventually fall by the wayside. And any necessity for choosing one's individual organization over this new collective entity simply would not exist.

In effect, I'm hoping we'd get the primary benefits of membership in a national association – a voice in legislation and regulation, a source of education and organization of a national trade fair – without expecting it to be all things to all people. Meeting the specific needs of con-

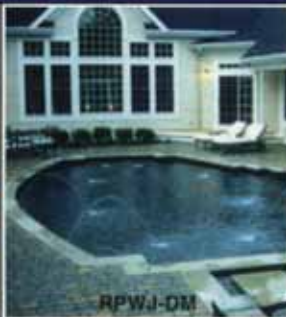
Continued on page 16

## WALL/DECK/ANGLEJET®

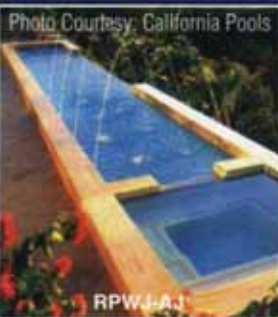
Photo Courtesy:  
Eastern James Corp.



RPWJ-PJ



RPWJ-DM



RPWJ-AJ

Available with single stream, multi stream and fan spray patterns.



WALL MOUNT



DECK MOUNT



ANGLE MOUNT

*"Unique Products for Unique Pools" S.M.*

MEMBER



NATIONAL  
SPA & POOL  
INSTITUTE



roman  
fountains®

*The Fountain Experts! S.M.*

**1-800-794-1801**

Pool Products Division

**www.romanfountainsforpools.com**

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

© 2001 All Rights Reserved

Circle 62 on Postage Free Card

# Pool Cover Specialists

*The Design  
Friendly Company*

THE  
SHAPE  
OF  
THINGS  
TO  
COME

Known throughout the industry as "the innovators" in pool cover technology, Pool Cover Specialists National, Inc. has developed an impressive reputation for accommodating the unique design requirements of architects and pool designers.

**THEN**  
Pool cover limitations dictated pool designs and shapes.

**NOW**  
We can accommodate your vision. You dream it and we'll design it.

The **INFINITY 2000™**, expanding the horizons of pool cover technology into the 21st century.

- Automatic Systems for Vanishing Edge Pools
- Designs that completely hide recessed mechanisms and housings
- Invisible tracks for free-form pools
- Water features synchronized to cover activation



[www.poolcovers.com](http://www.poolcovers.com)

(800) 369-5152

**AQUASCOPE®** patented Tele-scoping Fountains transform pools and spas into beautiful fountains during non-swimming hours. These easily installed fountains automatically retract flush into the pool bottom and do not protrude when not in use. The fountains are powered by the standard pool filter pump. **NO ADDITIONAL PUMPS ARE NECESSARY.** A one inch line fitted with a gate valve is all that is needed in addition to the fountain.

The *fountains for pools®* AQUASCOPE® fountains have been designed for beauty and ease of use. Enjoy the added value of the sight and sounds of a fountain. **FOUR** different **WATER PATTERNS** are available. Call or fax for a brochure and easy installation instructions.

Reg. U.S. PAT. OFF. No. 3722816 & PATS. Pending



**fountains for pools**

18300 Oxnard Street - Tarzana, CA 91356 Ph. (818) 345-6955 - Fax (818) 345-1507

Circle 55 on Postage Free Card

## AQUASCOPE®



**SIZES AVAILABLE  
FOR 8" to 108" OF  
WATER DEPTH.**

## AQUA CULTURE

Continued from page 14

tractors, service professionals, retailers and other groups would be left to the smaller organizations.

Maybe I'm being irrationally exuberant about this idea, but I would like to think that a two-tiered structure of this type would empower a national organization without asking it to compete with more focused and locally responsive grassroots organizations.

### Having My Cake

It seems to me that the true beauty and power of the watershaping trade is its broad diversity and, as we are only coming to recognize now, the sheer numbers of its participants.

It's unreasonable to think that any single organization could, all at once, serve the localized, specific needs of professionals as diverse as landscape architects, chemical manufacturers, spa retailers and pool service technicians as well as the global need of the industry for swift and thorough communication. One size does not fit all in terms of organizational structures and goals. At the same time, there's no doubt that a national organization with a clear-cut, collective agenda would be useful.

Hey, I know this notion is about as far into the blue sky as it gets, but I've always wanted to have my cake and eat it, too. With so much going on in our trade, it seems that we should be able to make our associations meet our needs, and not the other way around. It's an idealistic vision, I'll grant you that, and as I wrap it up I want to remind you that this is simply food for thought.

You don't have to go along with me, call it SOW and make me dictator for life (a great idea I hadn't mentioned up to this point), but hasn't every great organization started out as just an idea? **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](mailto:bvanbower@aol.com).

## naturally INSPIRED

National Pool Tile Group's earth tones and natural texture tiles are just the beginning. We have **THE LARGEST** selection of pool/spa tiles available anywhere, so your clients' dreams are no longer your nightmare. With hundreds of tiles - from subtle textures to glossy patterns to modular matching color tile systems - NPTG has what you're looking for.

Call toll-free 1-888-411-TILE and we'll immediately send you brochures/samples.



[www.nptgonline.com](http://www.nptgonline.com)

Circle 29 on Postage Free Card

# Rico Rock®

## Structural Waterfall Systems

### One Day Waterfalls

A RicoRock Kit consists of a plastic shell, steel rebar cage, and cast rock pieces designed to fit together.

You apply concrete, by hand or by concrete pump. Only minor areas need hand texture. Color the next day.

#### Four models to choose from.

With our 3-Foot Ledger Long model, three men can install the unit in one day and color it the next.

The most popular model is the 6-Foot Sheet Waterfall used as a grotto and cave. We also offer rock castings and training videos on how to customize a Rico Rock waterfall.



Construction



Above: 3-Foot Ledger Long model  
Below: 6-Foot Sheet Waterfall



#### Also available:

- Rock castings, general and special purpose
- Sales literature for your client
- Training videos for your crew
- Texture mats to imprint rock texture
- Paint kits to stain rockwork

**Rico Rock** The revolutionary structural waterfall system developed by the pioneer builder of artificial rock pools.



#### NEW ADDRESS:

14033 Rose Ave. • Fontana, CA 92337  
1-888-717-3100  
[www.ricorock.com](http://www.ricorock.com)

\*\*Patent Pending. RicoRock is a registered trademark.



## Edible Landscapes

**M**ore and more of my clients are interested in including edible plants in their gardens. They're into cooking, great food, fine wine and entertaining, and they appreciate the special flavors that come when they grow and harvest their own edibles.

It's incredibly satisfying to walk out into one's own garden and pick fruits or vegetables or herbs. Not only do these edibles taste better than any store-bought produce, but any gardener can be reasonably sure that the foods they grow are free of pesticides and other undesirable contaminants.

No matter what style of landscape you're creating for your clients, you can easily incorporate these plants into the plan without creating a maintenance nightmare. And I suspect most of your clients will be pleasantly surprised by what they can grow in their own yards.

### Getting Started

While a large percentage of your clients may want something edible in their gardens, most of them will probably avoid bringing up the subject because they believe growing their own edibles takes a lot of work.

After you've established that they'd like some types of fruit, veg-

**No matter what style of landscape you're creating for your clients, you can easily incorporate edible plants into the plan without creating a maintenance nightmare.**

etables or herbs in their garden, let them know you'll help them through the selection and maintenance process – and that both processes are easier than they think.

Try asking your clients what types of foods they like. Do they cook often? What types of foods do they prepare and what types of herbs do they use? Once you've established some preferences, you can begin creating a list of suitable plants.

After that, you need to address three important points about edible plants in a watershape environment: sun exposure (which you need to consider with or without a watershape), location and the proximity of any edibles to the water.



**SUN EXPOSURE:** Most edibles require full sun. Sure, some will thrive in partial shade, but the greatest chance of success comes with full sun. The plants need the exposure to feed the chemical reactions required to produce large, sweet, good-quality fruit.

(Note: I use the word "fruit" here to mean any *edible* things that are produced by plants. Please be aware that many garden guides use the word "fruit" to mean anything other than a seed pod or flower that a plant produces. Just because they use the word "fruit" doesn't mean it's edible, which means you need to investigate a particular plant thoroughly before planting to be sure the fruit you'll get can actually be eaten.)



**LOCATION:** Your clients will need to be able to pick the fruit or cut the vegetables and herbs from their plants easily, so watch where you put them. You wouldn't want your client to have to wade through their pond to get to their prized raspberry bush. Think things through and do what you can to ensure easy access from all angles (depending upon the plant, of course).



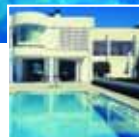
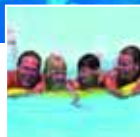
**PROXIMITY TO THE WATERSHAPE:** Many plants that produce edibles are deciduous. These plants need to be placed as far

Continued on page 20

Your place to

SHINE

SHINE



Attend *The Biggest Water Show of Them All™* and put a shine on your bottom line! International Pool and Spa Expo (formerly NSPI EXPO) is THE industry event—your one-stop resource for all the emerging trends, unique suppliers, new products and vital information you need to increase sales year-round.

- See it all! 2,300 hands-on exhibits—all the major suppliers—all the NEW product introductions. An amazing depth of product you won't find anywhere else!
- Expand your year-round profitability with NEW resources; everything you need to take advantage of the growing outdoor living market.
- Learn from the best! Our comprehensive education program offers essential knowledge, new skills, proven solutions and credits toward professional certifications—bring your staff!
- Talk to factory reps! Get answers to your toughest questions. Exchange ideas with industry peers, learn from the experts and make important contacts.

## 2001 POOL & SPA EXPO

INTERNATIONAL



Owned and produced by:

**Hanley-Wood**  
EXHIBITIONS

Register online today at  
**[www.PoolandSpaExpo.com](http://www.PoolandSpaExpo.com)**  
or phone 888-869-8522 or 972-536-6350

**Conference: November 27-30**  
**Exhibition: November 28-30**

**Phoenix Civic Plaza & Bank One Ballpark**  
**Phoenix, Arizona USA**

*Circle 44 on Postage Free Card*

Most edibles require full sun. Sure, some will thrive in partial shade, but the greatest chance of success comes with full sun.

Continued from page 18

as possible from any watershape to avoid the inevitable maintenance hassles. Remember that some leaves and debris from plants also can cause harm to water environments.

## Edible-Friendly Spaces

Selecting plants is one thing.

## 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](http://www.stegmeier.com)

Circle 42 on Postage Free Card

Growing them successfully once they've been planted can be quite another. There isn't space here to cover all the do's and don'ts of growing, but let me cover the basics.



**WATER.** After determining which edibles your client wants, you'll need to check on each particular plant's

watering needs. (It's a common misconception that plants that produce something edible need lots of water!) As with any planting plan, it's a good idea to try to group plants with similar watering needs in one location.



**FERTILIZER.** The choices here are endless—everything from home composting options to heavy chemical fertilizers. I'm guiding more and more of my clients to small, simple composters or organic fertilizers these days. (The Internet can be a great resource for these methods.) Informing

## RETAINED KNOWLEDGE

Edible plants can work with any garden style. You simply need to remember how to incorporate different shapes, textures, colors and sizes of plants into the plan.

Here are a couple of examples of how edibles can work within a couple of common (but classic) landscape styles.

- The cottage garden. Any plant, no matter its shape, texture or size, can be incorporated into a cottage garden. I've found that edibles work quite well in these landscapes. It's easy to nestle herbs such as chives, marjoram or basil into a naturalistic planting, while larger plants such as citrus trees or loquats can be scattered throughout a cottage garden. The key here is spacing—and leaving gaps between the big plants large enough to allow sun to reach the

your clients about their choices for healthy food production will likely put you in their good graces.



**PEST CONTROL.** This is one of my favorite subjects. Every year, I love going to the nursery to get a load of ladybugs to release in my yard. I think they're a better choice for pest control than heavy chemical repellents. Again, the Internet has many sites that discuss natural pest control. Check them out by typing "pest control" into any search engine.



**PRUNING.** Although each plant will have its own pruning requirements, be aware with herbs in particular that many of them will not last quite as long if they are allowed to bloom. I cut off most blooms on herbs before they open up. That way, the plant spends more time producing edibles and less time making flowers. Fruit trees, by contrast, produce blooms that eventu-

ally become the fruit. You'll need to be careful to research your selections thoroughly and let your clients know what each plant needs. **WS**

*Next month, I'll give you a list of plants you can use in an edible landscape – and suggest some ways of putting together a design that will work for you and your clients.*

**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](mailto:sroseld@earthlink.net). She also can be seen this season in six new episodes of "The Surprise Gardener," airing Tuesday evenings on HGTV.

lower-growing edibles.

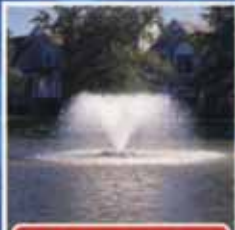
- The formal garden. This is actually the easiest garden style for edibles. Just think of the great kitchen gardens of Europe. Huge expanses were often used to plant all the fruits, vegetables and herbs an entire village might need. Some of these gardens still exist today and are represented quite well in beautiful coffee-table books. The French chateau of Villandry, for example, has one of the most celebrated kitchen gardens in the world.

But be advised that you won't need to create an elaborate, chateau-scale garden for your clients to have edibles in their yard. Even the smallest plot of land can be converted into a fully edible landscape!


–S.R.

# Font'N-Aire


## FLOATING FOUNTAINS



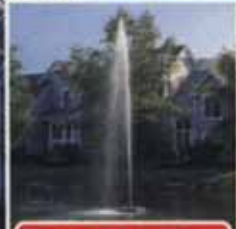
**CARNIVAL**




**GALAXY**




**SOLACE**




**SKYWARD**




**NOVA**



**NORTHSTAR**




**DIANA**

**AIR--LATOR**  
"THE WATER'S EDGE"

AIR-O-LATOR has been involved in aerator design and the technology of aerating since 1967. The Font'N-Aire floating fountains implement a Franklin Electric submersible, water-cooled, water-lubricated and UL-recognized motor.

Font'N-Aire is supplied complete with flotation, one of eight nozzle spray patterns to choose from, 100 feet of power cord (longer lengths available), propeller guard, ETL-listed control panel to ANSI/UL 508 specification as required, flotation and three-year limited warranty. Font'N-Aire is available in 1/2 horsepower through 5 horsepower.

**AIR--LATOR** 8100-04 Paseo Kansas City, MO 64131 U.S.A.  
(800) 821-3177 (816) 363-4242 Fax (816) 363-2322  
website: <http://www.airolator.com> e-mail: [sales@airolator.com](mailto:sales@airolator.com)

Circle 3 on Postage Free Card



## Thermal Potential

**S**ome details seem simpler than they really are. A case in point is the one I'll describe this time – a detail I call a *thermal ledge*.

In one sense, it's really just a large bench located a few inches below the water's surface, but in terms of what it is structurally and what it does to increase enjoyment of a pool, it's something truly special.

The ledge seen in finished form on page 26 is visually interesting in the way its stone surface picks up the rockwork used throughout the deck and the barbecue area and within the pool itself. As important, it provides the homeowners and their guests with a wonderful and relaxing way to enjoy getting wet.

It's a great play area for children, a perfect spot for sunbathing, a fine place for enjoying a beverage or just sitting and watching the world go by. You can make it a shady area by installing umbrella stanchions, or you can, as in this case, build a permanent shade structure overhead.

No matter what touches you add, there's one big point I must make: A thermal ledge is a wonderful detail, but you must do it right or you'll end up on the wrong end of a serious structural failure.

A thermal ledge is a great play area for children, a perfect spot for sunbathing, a fine place for enjoying a beverage or just sitting and watching the world go by. You can make it a shady area by installing umbrella stanchions, or you can build a permanent shade structure overhead.

### Down To Details

As is the case with every other structure associated with a pool, a thermal ledge must be properly engineered – and planned from the initial stages in consultation with a structural engineer.

I've seen lots of pools where contractors have cantilevered benches beyond the edge of the pool with little or no support, more or less as afterthoughts. But unless the pool has been engineered to handle even that simple an external feature, you'll see a hinge effect that will lead, later if not sooner, to cracking, leakage and, eventually, structural failure.

If the pool is engineered to handle a cantilever, you're fine. If not, however, the structure is going to fall apart.

Of course, this is a place where some contractors choose to cut corners, and I've seen many projects where the shell isn't designed to support the weight of the bench and ends up cracking. There's no way to backtrack: The only solution when the inevitable happens is to tear the whole thing out and rebuild it correctly *from the ground up*.

I shoot my benches (or ledges) from the floor up using gunite. Alternatively, I'll fill in with shotcrete from the wall out if the floor and walls have already been shot, and sometimes I'll pour or cast the concrete in place. Whichever

Continued on page 24



**There's an equipment room filled with quality pumps and filters in this picture.**

## **It's obvious. Isn't it?**

When you have minimal space but want maximum beauty, then Vak Pak has the answer. Whether it is a subterranean vault, a low-profile vault or an above-ground cabinet Vak Pak can meet all your pumping and filtration needs.



**Also, inquire about our umbrellas and interactive water features.**



**Vak Pak Inc. P.O. Box 3264, Jacksonville, Florida 32206 1-800/877-1824**

*Circle 64 on Postage Free Card*

Continued from page 20

way it all comes together, my goal is to create a solid mass of concrete and steel in accordance with the structural engineer's design specifications.

I never, ever use rebound or overspray – a common mistake in building benches – and I apply the concrete over a steel armature using bar sizes and spacing determined by the structural engineer as being capable of supporting so large a mass of concrete.

This approach costs more than doing it the corner-cutting way, but building ledges in this way removes *any* possibility of damage resulting from movement in the ground, cracking that results from shrinkage or expansion of the concrete, or even movement by earthquake – a major concern in my region.

I also make my thermal ledges fairly wide – four to five feet across in most cases – to provide ample room for a variety of relaxing activities that can be enjoyed by more than one person at a time. The broad surface keeps more water still at a



It's reasonably easy to include a thermal shelf in a swimming pool, but it's like so many other great design details in that it's critically important to consult a structural engineer to make sure you get it right. The shelf includes a tremendous mass of steel and concrete: If you follow the specifications, the engineer ensures that the shell will be able to support the extra weight and that the shelf itself will have the required structural integrity.



**MACALITE EQUIPMENT, INC.** 4510 EAST KERBY AVE. • PHOENIX, AZ. 85040 • (480) 967-0770

- 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 27 on Postage Free Card

Because the surface of the ledge is just inches below the water's surface, its finish is highly visible and it's *always* going to attract attention.

given time, and it also increases the visual "weight" of the ledge.

The stillness is important: When water stays calm over a shallow area, it will warm up more quickly than will the rest of the water in the pool. It's the same as when a person dives into a pool and experiences different water temperatures at different depths: The thermal ledge works off of this layer-cake principle, and the water warms much more rapidly here.

The visual element is critical as well: Because the surface of the ledge is just inches below the water's surface, its finish is highly visible and it's *always* going



In the case of this thermal shelf (and as we saw in Detail 8 in the last issue), the section of the grade-beam grid beneath the shelf was set up as part of the support system for a massive overhang. Preparing for this required some work at close quarters within the thermal-shelf void to set up the platform for the post.

**small  
ingredient**



**BIG  
difference**

**3M Colorquartz Aggregate can make pool finishes look brighter, feel smoother and last longer.**

Colorquartz aggregate brings lasting, dynamic color and added strength to pool finishes even when exposed to strong pool chemicals and harsh sunlight. This is a surface that will stand the test of time. And, unlike pebble finishes, a pool finished with Colorquartz aggregate can be as smooth as plaster - comfortable in use and pleasant to the touch. It's a small ingredient, but it makes a big difference.



Color you can count on... From a company you can trust.

**3M Colorquartz™ Aggregate**

web - [www.3M.com/pools](http://www.3M.com/pools) • email - [colorquartz@3M.com](mailto:colorquartz@3M.com) • phone - 800 447-2914

Circle 2 on Postage Free Card

to attract attention. That's why I like to put a beautiful finish on these areas, whether I'm working with tile, plaster or, as in this case, stone. I usually pick up a material used elsewhere in the project in some other external detail: It's a wonderful way to tie the water into the hard-scape structures and provide interesting visual transitions.

Sure, a thermal ledge costs a good bit more than a standard bench, especially if you do it right. But given the value it delivers my clients in terms of more (and more varied) use of the pool environment, I think — and they agree — that the investment is worth every penny.

**David Tisherman** operates David Tisherman's Visuals, a design and construction firm based in Manhattan Beach, Calif., with offices in Marlton, N.J. He is co-founder and principle instructor for Genesis 3, A Design Group, which offers education aimed at top-of-the-line performance in aquatic design and construction.



Once the shelf was shot, it was topped with the same stone used for the decking and the ledger stone highlighted in Detail 4 in the March 2001 issue of *WaterShapes* (page 18). The use of the stone here is another way we set up seamless transitions from the home to the water — continuity of material as far as the eye can see.

## Electronic Water Level Management Systems

# Levolor® TECHNOLOGY

*So Complete You Don't Need To Be There.*



**System Dynamics**  
Scottsdale, AZ 85260  
800-844-8514 Fax: 480-443-0487  
E-Mail: millenium@primenet.com

Circle 52 on Postage Free Card

# META<sup>Max</sup>® PA

HIGH QUALITY POZZOLANIC ADDITIVE FOR PLASTER

## *Better Pools From Start To Finish*

*And best of all it's easy to use.*

We make pools better by improving the plaster that goes into their construction—so pool plasters are easier to apply and maintain their appearance longer, even under some of the most severe conditions.

To date, MetaMax®PA pozzolanic additive for plaster has demonstrated exceptional performance in over 30,000 pools. Today, MetaMax PA is becoming the admixture of choice in white and pigmented plaster and all exposed aggregate finishes. Best of all, you can satisfy your customers with MetaMax PA in either new construction or replastering of their swimming pools while making your job easier.

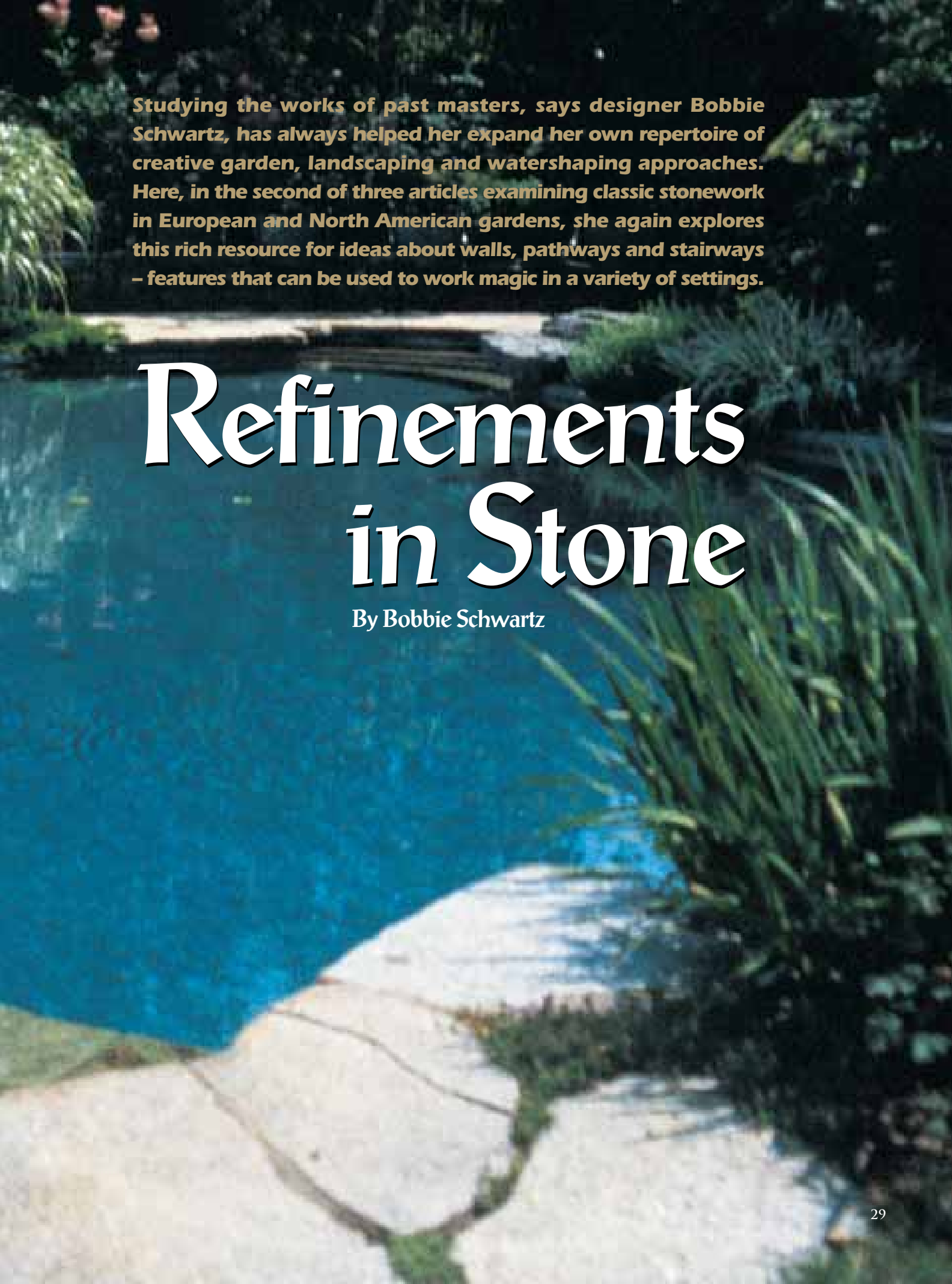
For more information call 800-573-4835 or visit our web site at [www.engelhard.com](http://www.engelhard.com)



**ENGELHARD**  
*Change the nature of things.*

Circle 24 on Postage Free Card





**Studying the works of past masters, says designer Bobbie Schwartz, has always helped her expand her own repertoire of creative garden, landscaping and watershaping approaches. Here, in the second of three articles examining classic stonework in European and North American gardens, she again explores this rich resource for ideas about walls, pathways and stairways – features that can be used to work magic in a variety of settings.**

# Refinements in Stone

By Bobbie Schwartz

IT'S THE LITTLE THINGS THAT OFTEN MAKE the biggest difference in creating beautiful spaces within gardens or near watershapes. A well-articulated retaining wall here, a clever treatment of a stone footpath there or the perfect placement of a stone stairway can, at various points, lend variety, balance and even a sense of antiquity to the work.

In the first installment of this series of articles on classic uses of stone in gardens and watershapes, we began with an overview of stones set among plantings and used as simple structures in some of the world's most beautiful spaces. This time, we'll continue the journey with a more focused look at the way masters of the craft used stone in their walls, pathways and steps – ideas that can easily be translated to modern watershape settings.

By exploring these classic and often subtle stone treatments, today's water-

shapers stand to gain inspiration along with very specific design ideas – a powerful brew that will help you liven and enrich your clients' garden spaces now and in the future.

### Interior Spaces

Last time, we looked at walls used mainly to define the external boundaries of landscape spaces. But walls also find use *within* those larger confines, either to define or divide smaller spaces within gardens or to manage or mark transitions in elevation.

When I look at much contemporary work, I can't help noticing many missed opportunities. Particularly bothersome are the glaringly "new" retaining walls that make it seem as though the designer had resigned himself or herself to installing a purely functional structure without much (if any) thought about turning the nec-

essary presence of the wall to his or her clients' visual advantage.

In classic gardens, you don't find this pale, flat attitude. Indeed, the master gardeners were adept at taking advantage of every opportunity offered by walls, and you'll find a variety of approaches aimed at making both retaining and freestanding walls enhance, complement or reflect their surroundings.

At Vann, for instance, the designer of this private English garden set large slabs of stone against a straight cut as a retaining wall, then put smaller slabs *in* the wall slabs as seating (Figure 1). Set against a cut-stone patio, the wall extends and harmonizes with a serene, sheltered refuge.

Or consider the use of stacked-stone walls with beautiful ornamental caps, as we find at Iford House in England. The terrain here is very steep and is governed by a series of stone walls, terraces and

Figure 1



staircases (Figure 2) designed by landscape architect Harold Peto, who owned the house from 1899 until 1933. It's a beautiful combination of sound engineering with a real visual treat – and not a missed opportunity in sight.

Peto firmly believed that the most beautiful gardens had to combine plants and architecture – a sentiment he picked up from predecessors who designed the gardens of the Italian Renaissance and that he has passed along to us in an unbroken chain stretching back more than 500 years.

Observation of the past also shows us that walls need not be solid, monolithic masses to get the job done, as can be seen in the unusual stone wall used as a “room” divider at Spadina House in Toronto (Figure 3). Its arches serve as display niches for flowers in containers, and the wall itself is also the base for a pergola covered with vines.

In these three examples, we see what could have been mundane, practical structures made into distinctly ornamental visual elements within the overall garden composition. Applying these same creative approaches around watershapes is certainly possible – and can transform the merely utilitarian into something that supports and extends the impression made by the overall design.

### Footfalls

Beyond wall construction, the most common use of stone in gardens is as a paving material for walks or as edging for walks or driveways made of some other material.

Gravel is frequently used for walkways or driveways in Europe but is used less often in the United States, where it is frowned upon as being “messy.” It's possible, of course, to use an aggregate that looks like gravel but has the solidity and permanence of concrete – as seen at St.





Figure 4

Goarshausen, a small town along the Rhine in Germany, where aggregate is set off by small edging stones (Figure 4).

As for paving with stone itself, there are many old patterns that we can use for inspiration – one of which is the use of wide stone slabs laid horizontally to create a sidewalk. This approach appears at Iford

House, where Peto edged the surface with squares of stone of a corresponding color (Figure 5). This same approach has been applied elsewhere, sometimes with the edging elevated to create a channel, other times with the edging at the same grade as the walkway.

(For a moment, let's look back to the

first article in the series – June 2001, page 50 – and bring up a point that was raised about the usefulness of deliberately aging or distressing stone so that it appears old. To my mind, mimicking age is a wonderful way to add warmth and a sense of timelessness to modern work. Peto's accomplishment at Iford house is about a



Figure 5



Figure 6

century old – but it looks as though it has been around for centuries uncounted.)

As for broader expanses of stone decking, you'll often find the use of different sizes of rectangular stone set horizontally and perpendicularly to create a pattern that seems consistent, yet somewhat irregular. A beautiful but highly unusual pattern was designed for the entrance to Cranborne Manor in England in the mid-1800s – a pattern consisting of squares and rectangles of cut stone intermingled with stacked squares and rectangles of brick (Figure 6).

Of course, the range of opportunities available with stone paving is virtually limitless. The few images seen here are just a sampling of what's been done by our predecessors to bring the durability of stone together with an aesthetic approach that makes structures as common as walkways a source of visual interest in their gardens – and the perfect potential complement to many types of well-designed watershapes.

### Step-Wise Transitions

We've already addressed garden walls as one way of managing elevations, and now we come to a second: stairways, and

Continued on page 35

### Structural Magic

As you can see in the accompanying feature, there's no limit to the patterns and aesthetic touches that can be picked up in the study of classic designs. The best thing about this kind of study is that it leaves plenty of room for creative interpretation – and for transmuting a general construction idea into an almost magical creation.

At Hadsen House in England,



for example, you'll find a spectacular garden that contains an unusual watershape: There's a tall (approximately 12-foot) brick wall on the inside of a rectangular lily pond that was once a water tank. Above the wall you'll see more gardens and a path between them, and the whole composition is set up to manage views and make the pond a pleasant surprise when you approach it from above.

If I were building this sort of space now, I'd think about using stone instead of brick and then adding to the potential delights of the space by accenting the wall with small water spouts – something along the lines of the Hundred Fountains wall and walkway found at the Italian Renaissance's Villa d'Este, although a hundred spouts would be somewhat overwhelming in this space!

The fact is, in drawing inspiration from the classics, designers are never beholden to them, never required to imitate them slavishly. Inspiration is literally filling one's mind with the spirit of a thing rather than a direct borrowing of form or function. Speaking for myself, I use the classics as touchstones and try to create new, innovative, site-specific projects that evoke the same feelings and emotional responses I find in the originals.

When it works, it's *magical*.

– B.S.

Figure 7





Figure 8

Continued from page 33

the potential they have in guiding visitors to our designs from place to place within a garden.

Steps can take on any number of “looks,” from the rustic to the formal. Of the former sort is the rough-hewn stairway in the Royal Botanical Garden in Hamilton, Ontario, Canada, which looks as though it erupted as slabs from an ancient quarry (Figure 7). In fact, the stone was brought in and placed in the 1930s – a reminder that one of characteristics of stones is that the larger their size, the older and more permanent they seem.

Watershapers, of course, have the opportunity to use stone stairways (whether rustic or formal) as a source of access and egress from their pools, as is the case in this project in suburban Boston. Here, a set of irregular (but basically triangular) steps leads to an irregularly shaped swimming pool with a stone deck, and the stone steps carry right into the pool itself (Figure 8).

There are also more formal ap-

proaches to stairways, such as one found at the Morris Arboretum in Philadelphia. This sweeping stairway follows models found in classic English gardens designed by Sir Edwin Luytens, including Great Dixter. Particularly impressive is the way

in which vegetation has been used to instill a sense of age and permanence (Figure 9).

In many cases, as at Upton Grey in England, designers will let the plantings and/or mosses run wild to soften the



Figure 9

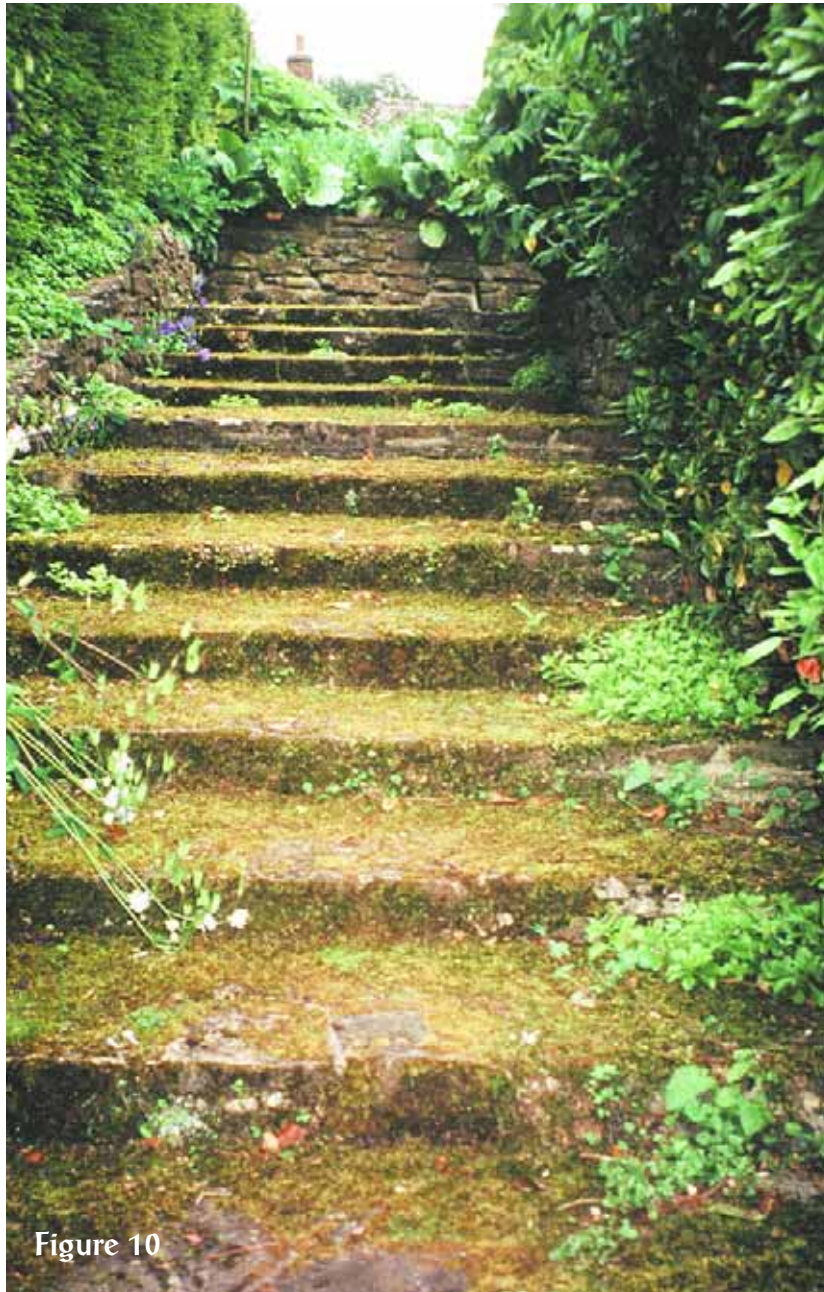


Figure 10

harder edges of the stone (Figure 10); at the Morris Arboretum, however, the plantings and their close-cropped perfection actually add to a sense of formality and structure and lend grace to what is too often seen as a utilitarian means of transition.

For designers who aim to please rather than simply convey their clients from place to place, steps should be more than a means of achieving an end. Rather, they should give us visual pleasure as we traverse them – and beckon us to discover a new world.

### Seeking Patterns

One of the key concepts underlying all of the positive examples discussed so far is the designers' clear use of patterns. Repetition of a certain shape or line is a wonderful way to create continuity within any physical space, and patterns of stone in particular serve as wonderful visual foundations for the ever-changing whimsy of plant life or moving water.

Many of the patterns we've seen here *are* fairly regular, but that doesn't imply any sort of limit on the possibilities. A "cracked glass" pattern, for example, can be particularly effective and evocative. At Siena in Italy, I saw a very simple rooftop garden set into a terrace of irregular stone (Figure 11). With larger stones, this same sort of random patterning works on decks.

Another key point: No matter whether the patterns are regular or random, it's always wise to remember the value of making new work look old – and think about encouraging the growth of crevice creepers or planting perennials to seed between the stones (Figure 12).

Continued on page 39



Figure 11

Figure 12



## The Stone Option

Who says that the supports for garden structures have to be made of wood?

Landscape architect Sir Edwin Luytens had a wonderfully fertile mind, and he constructed many of his pillars out of stacked stone in both round and square designs or in combinations of the two. Some were set up as free-standing focal points while others served as supports for pergolas (A). I've also seen (in the work of other designers) stone structures that would serve perfectly well as pool houses (B).

As with walls and pathways, structural elements such as pillars and even shelters can be made beautiful with the use of stone in creative shapes and patterns.

— B.S.



Figure 13



## DOES YOUR POND NEED AN AQUACUBE®?

The AQUACUBE® provides complete, **maintenance-free** aeration, degassing, biological filtration, circulation and foam fractionation to any size pond without a water pump, submerged electrical wires, chemicals or replacement parts.

- Use either floating or submerged to create a balanced, aerobic environment for maximum fish growth and health while reducing algae.
- Processes 10 times more water per kilowatt hour than the most efficient water pump.
- Complete, preassembled, silent Koi systems available in four sizes.
- AQUACUBE® systems for large ponds and lakes are also available - Call or fax for free systems design services.



## DOES YOUR SAND FILTER NEED PERMA-BEADS™?

Perma-Bead™ Media **replaces sand** in any rapid sand filter and provides a non-clogging, non-channeling method for superb particulate removal without any plumbing changes.

- Large interstitial spaces for maximum trapping of waste - unique surface properties - ultra high density.
- Extend backwash intervals with complete fluidization upon backwash - never needs replacing.
- Complete state-of-the-art minimal maintenance Perma-Bead™ filter systems available for all size ponds.
- Call for replacement volume and quote to convert any size sand filter to Perma-Beads™.

Celebrating our 15th year of **innovative system design** and **technical support services**.



**ADVANCED AQUACULTURE SYSTEMS, INC.**  
4509 Hickory Creek Lane • Brandon, FL 33511  
Phone (813) 653-2823 • Fax (813) 684-7773  
[www.advancedaquaculture.com/landscape](http://www.advancedaquaculture.com/landscape)

Circle 6 on Postage Free Card

Figure 14



Continued from page 36

You might use any of a number of plant varieties here, the choice being mainly determined by the "zone hardness" of the site.

Of course, cost is a factor in choosing to use stone in watershaping projects. On the one hand, it's probably easier than it's ever been to get your hands on good-quality stone in a huge variety of types, textures and colors; on the other hand, it's true that stonework can run through a heavy portion of any given budget.

But sometimes, all it takes is a creative approach rather than a monster budget. At Iford House, for example, you'll find stone used as risers with dirt or gravel as the steps (Figure 13) – a simple solution that really works. (There are, of course, other compromises that don't work so well, such as mixing good-quality stone risers with precast-concrete pavers as treads, as seen in Figure 14. This is a mixing of media that would have worked better with treads made of well-packed gravel fines, grass or even dirt.)

The point is, whether you're working to mimic the masters or striving to provide something innovative and new, the past can be used as a template or source for ideas that fit into a variety of visual contexts. Whether it's a decorative pattern on a stone wall or clever arrangement of stones on a deck or a pathway, these elements lend beauty,

depth and interest to the work. And no matter the style or perceived age of the work, the more refined and informed your approach, the more successful you'll be. **WS**

*Next time: A look into the art and science of creating rock gardens and using stone as an accent to plantings.*

## Two Perfect Answers to Your Customers' Chlorination Questions

The simple touch of a button can give your customers the perfect solution to automatically sanitizing their pool. Now you can choose the very best in automatic chlorination with either the AutoClear In-line System or the Pure & Clear In-pool System.



**AUTOCLEAR**  
THE NATURAL WAY TO SPARKLING CLEAR WATER

### New Electrolytic Cell Features:

- Clear top for easy viewing
- Flow switch in cell—needs less pipe space
- Made for 2" plumbing—no flow restrictions



### New Controller Features:

- Interface with Pentair Compool Cp Controls
- New diagnostics with brighter LED display

**PURE & CLEAR**  
THE NATURAL WAY TO SPARKLING CLEAR WATER

Automatic pool sanitizing 24 hours a day!

### New Controller Features:

- Interface with Pentair Compool Cp Controls
- New diagnostics with brighter LED display

Now you can provide your customers with softer, silkier water that helps reduce red eyes and itchy skin. For more information call toll-free **1-888-441-2532** today!

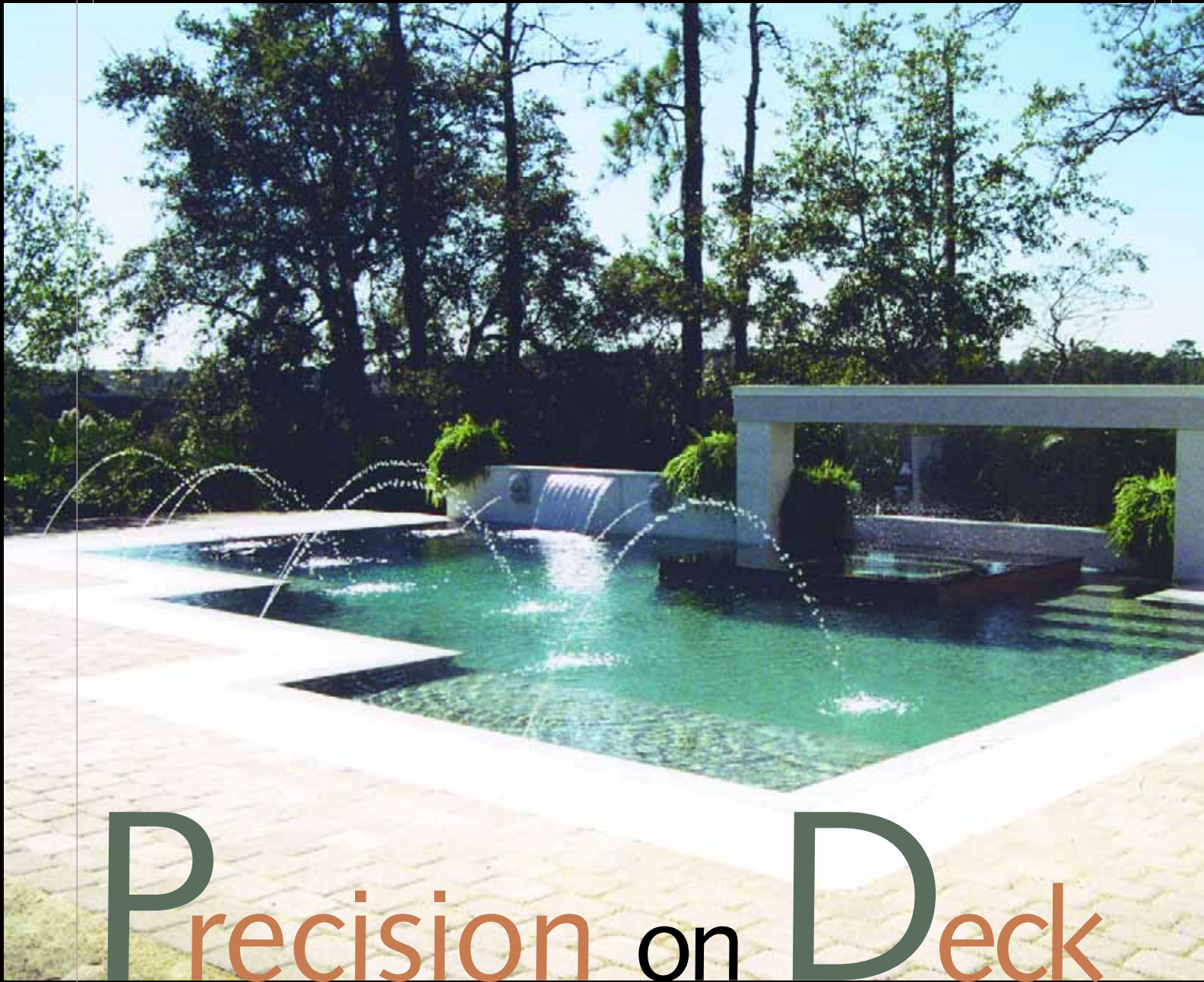


### CLEAR-TECH AUTOMATION, INC.

3860 N. Powerline Road, Ste. 100 • Pompano Beach, FL 33073 • Phone: 1-888-441-2532  
E-mail: [sanitize@pureandclear.com](mailto:sanitize@pureandclear.com) • Visit our Website: [www.pureandclear.com](http://www.pureandclear.com)

Circle 1 on Postage Free Card

Today's consumers are keen on a number of watershape 'looks' that call for unusually high degrees of precision in design and execution – with full-perimeter overflows riding high on many lists. The construction challenge in these projects will always be substantial, but the hydraulic puzzle may find its solution in a prefabricated flow-over system that promises to bring the wet-edge look to more and more mainstream builders, projects and clients.





## By Doug Ruthenberg

**T**he consumer's appetite for beautiful water and creative watershape design has grown by leaps and bounds in recent years – and expectations, it seems, are rising right along with the hunger for exceptional details and impressions.

Perimeter-overflow pools and basins are what an increasing number of consumers are after these days, and there's special interest in what are called "wet-edge applications," where the water rises to deck level and flows into a channel slot at the back edge of the coping. It's an amazing look – and harder to accomplish than just about any other because of the precision and tight tolerances required to make it work.

These wet-edge projects involve two substantial challenges for the builder: getting the construction details just right so the water can flow where it needs to flow, and getting the hydraulics just right so that when the water flows, it does so in such a way that the system keeps on working.

There is not much a manufacturer can do to relieve the contractor of the burden of nailing the lines and elevations: If the deck isn't right on the money, there will be dry spots and disappointment. But there is a new turnkey system that takes away any doubts about the hydraulic end of the project. It's called Edge Control, developed by the engineering team at Polaris Water Designs in Vista, California.

### SYSTEM BASICS

The Edge Control system is a pre-engineered, prefabricated system for the control of water on wet-edge applications. Each system is tailored to fit a specific installation, which means that

before the system arrives on site, the manufacturer's technical services staff has gone through all the calculations having to do with sizing, configuration, flow characteristics, surge capacity, water leveling and more.

In essence, Polaris tackles the engineering of this portion of the project and supports the work on site. The ambition is to make a spectacular water effect available to the full range of watershapers and their clients.

System components are made from lightweight, durable ABS plastic. As the accompanying step-by-step photographs show, prefabricated channels are mounted on the outside of the pool wall after the shell has been shot (which means the surrounding area will need to be over-excavated). The plumbing is attached to a reservoir tank used to handle surge capacity and feed the water-leveling system.

When the builder and client have settled on a design that includes a wet edge, the watershaper submits detailed design specifications with the order. Costs will vary depending upon linear footage, straight sections, curved sections, corners, clean-outs and reservoir capacity (calculated using the surface area of the pool). Final measurements are then taken *after* the shell has been shot to ensure a precise fit – at which point the system is manufactured.

Once all the components come together, the factory marks each component for easy re-assembly. Then the components are packaged and shipped to the job site with a clear set of drawings and written instructions. Under the supervision of a Polaris technical representative, the on-site installation begins:



## A Clean Spell

The most important step of the installation process is the preparation of the pool wall. The exterior must be straight and plumb for the vertical distance of 24 to 30 inches where the Edge Control channel will be located.

The manufacturer recommends panel-forming the walls using two-by-fours and half-inch plywood, assembling the panels with stainless steel screws and angle plates (A). The importance of nailing down the dimensions at the forming stage – and especially of creating level and square surfaces on the outside of the pool shell (B) – cannot be overemphasized.



## Precise Dimensions

Even with the best sort of effort in forming and shooting the shell, there will almost certainly be minor imperfections. That in mind, Polaris recommends taking point-to-point measurements to determine *precise* dimensions of the shell once it has been shot (C). It is particularly important to pay special attention to corners, checking them to make sure that they are the exact angle shown on the plans.

If the shell deviates slightly from the original measurements, minor adjustments can be accommodated with this system if the contractor provides an exact template of the off-kilter corners and/or edge contours. If radius corners are involved, a full template that shows the exact point where the curve straightens out is needed.



## Level Channels

The next step in the process involves determining the elevation of the channel system, which may vary a bit depending on the application. The manufacturer provides a layout drawing with linear and vertical dimensions to guide the contractor through the process.

Once the elevations have been determined and marked with a chalk line (D), the channel support brackets are positioned and bolted to the side of the shell (E). It is critical to check and recheck the brackets to ensure that they are absolutely level in both directions (F). Shim them up as necessary.



## Snap Together

Starting at one end, the contractor places the channel pieces on the bracket and fits them together as shown on the layout provided (G). (Slight adjustments can be made at this point by cutting the lengths with a circular saw.)

Once the assembly is complete, the units are glued together using a paintbrush applicator. With the unit assembled and in place,

it's recommended that the builder recheck the level of the unit using a site or laser level.

When the checking is complete (H), the contractor applies a bead of Pressure Seal 34 between the top of the Edge Control "neck" and the coping or finished beam to provide a watertight seal. At this point, it is a good idea to test the system by filling it with water to check for leaks.



## In the Tank

As is the case with most other edge-flow systems, Edge Control requires a reservoir (I) to allow for surge collection, water-level control and proper pump function.

It's recommended that the positioning of the tank be close

to the pool equipment and that a 6-inch pipe be run between the channel and the tank (J). The connection between the reservoir tank and the channel must be level for optimum hydraulic performance.



## A Strip of Decking

On the project pictured here, the contractor has installed a two-foot-wide deck around the edge of the pool. Rebar was tied into the shell and bent up and around the channel system to provide a steel armature for the decking (K).

In this case, the deck was formed using panels similar to those used on the pool shell (L). After the deck was poured, the forms were stripped and the area adjacent to the deck was backfilled (M).

Continued on page 46

# EXCALIBUR By Spray Force

The Sensible Way To Mix & Pump Swimming Pool Finishes



Pumps up to 500 feet of material hose, and up to 400 sacks per day.

## EXCALIBUR PUMP

- 40 HP, V-4 Wisconsin engine with electronic fuel injection
- Heavy-duty centrifugal clutch with four speed ranges
- Heavy-duty pump designed especially to handle swimming pool plaster & pebble finishes, sand and cement mixtures
- 12 CFM compressor atomizes material at nozzle
- Large 75-Gal. hopper

**EXCALIBUR**  
will also handle  
mixtures for  
**ARTIFICIAL ROCK**  
**FORMATIONS**

## HYDRAULICALLY-OPERATED MIXER

- Large, 13 cu. ft. steel mixer bowl with cast steel paddles and safety grate

- CALL, WRITE OR FAX FOR DETAILS •
- Ask about our Lease To Own Program •

The EXCALIBUR S-1 MOBILE consists of an EXCALIBUR pump and a 1010 Hydraulic PowerMix with a 16 HP Kohler engine, mounted together on a tandem-axle trailer with electric brakes on the front axle. The mixer is mounted in front, so that it will be nearer the towing vehicle that most likely would be carrying the bagged product to be mixed and pumped.



**S-1 Mobile Rig**



# SPRAY FORCE® MFG. INC.

2880 North Larkin • Fresno, CA 93727 • (559) 291-3300

1-800-824-8490 TOLL FREE • FAX (559) 291-3345

visit us on the Web at: [WWW.SPRAYFORCE.COM](http://WWW.SPRAYFORCE.COM)



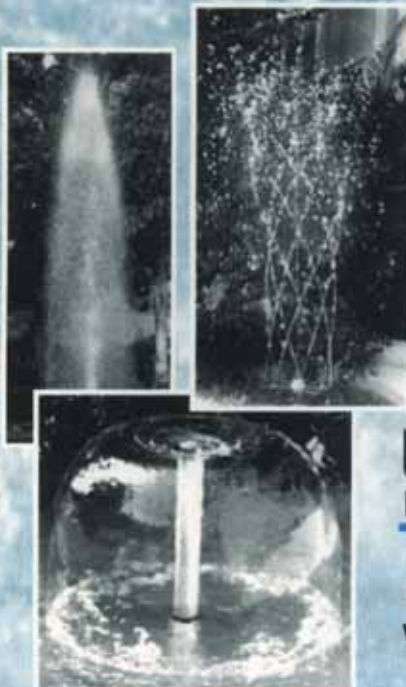


## Almost Out of Sight

Here the deck has been poured and the coping is being installed (N). Only a narrow slot behind the coping stones reveals the presence of the Edge Control system and the job is ready for finishing. **WS**

N

## The Best Equipment, The Best Price, The Best Service!



- Full line of bronze fountain nozzles
- High quality low cost powder coated nozzles
- High Tech patented Waterworks nozzles
- Design and engineering service available
- Established 1986

**Waterworks**<sup>TM</sup>  
International

St. Louis • Chicago  
E-mail: [waterworksint@earthlink.net](mailto:waterworksint@earthlink.net)  
[www.waterworks-fountains.com](http://www.waterworks-fountains.com)  
**800-932-3123 • 815-932-3003**  
Fax 815-932-3123

## DESIGN TEMPLATES

130 dynamic, 90's pool/spa designs on plastic acetate, with notebook, directory and 50 free-form layout drawings.

**Only \$229**  
plus shipping/handling

**1-800-463-3720**

Aries Enterprises, Tempe, AZ



## Pool-Side Sculpture

*HandCarved in Natural Stone*

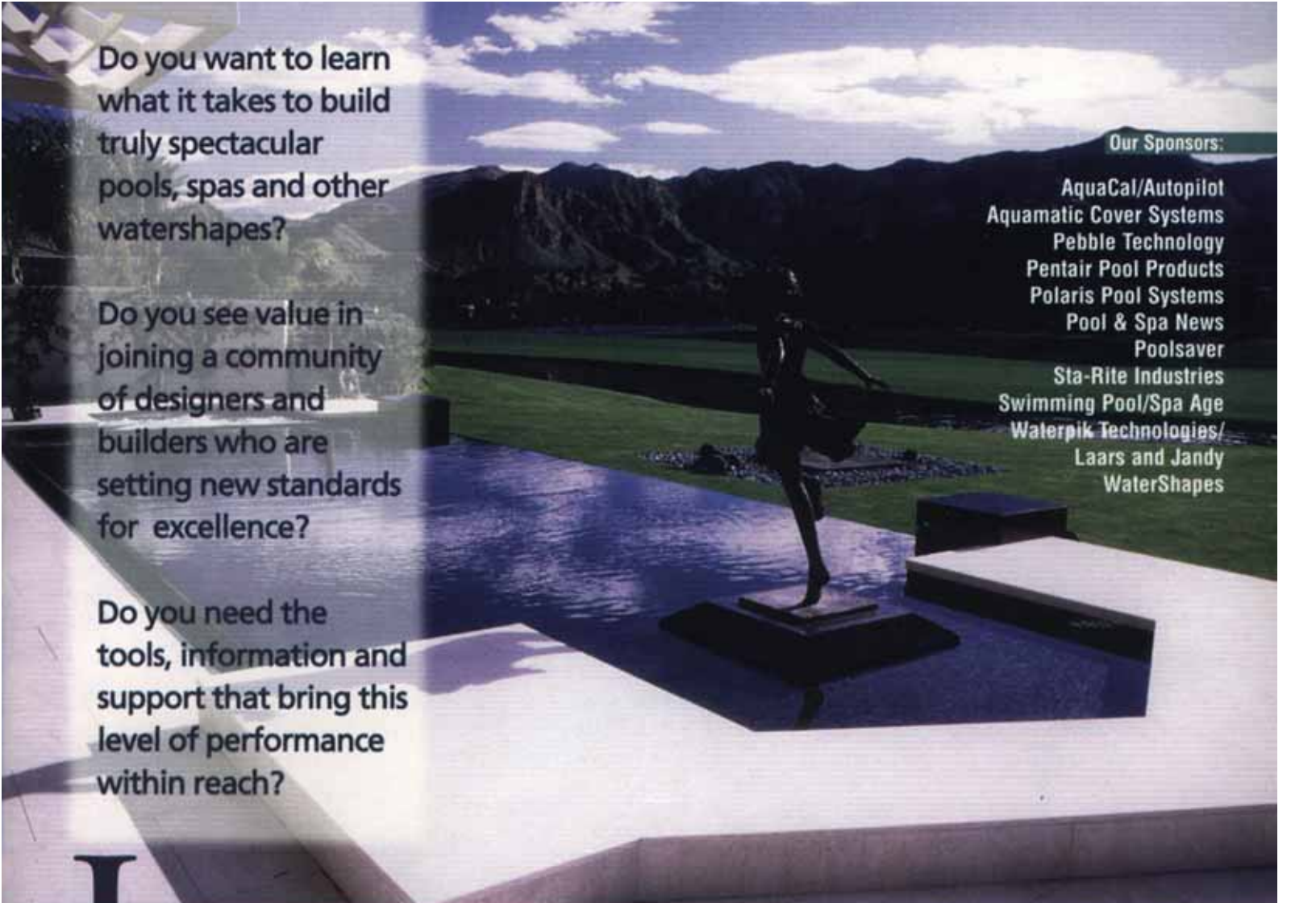
Drilled for recirculating pool water

• Standard Designs & Custom Work Available

**FOUNTAINS & ORNAMENTAL STONE**

(941)261-4128 • Fax (941)261-4133  
4405 Parrot Ave. • Naples, FL 34104

Circle 69 on Postage Free Card



Do you want to learn  
what it takes to build  
truly spectacular  
pools, spas and other  
watershapes?

Do you see value in  
joining a community  
of designers and  
builders who are  
setting new standards  
for excellence?

Do you need the  
tools, information and  
support that bring this  
level of performance  
within reach?

**Our Sponsors:**

AquaCal/Autopilot  
Aquamatic Cover Systems  
Pebble Technology  
Pentair Pool Products  
Polaris Pool Systems  
Pool & Spa News  
Poolsaver  
Sta-Rite Industries  
Swimming Pool/Spa Age  
Waterpik Technologies/  
Laars and Jandy  
WaterShapes

**I**t's all here in Genesis 3. Our schools have  
helped more than 100 professionals see their  
way to making a better product and unlocking  
greater profitability – and we can do it for you, too.


Our next Level 1 school has been scheduled  
November 7-11, 2001, in Morro Bay, California.  
Watch upcoming ads for information about  
our school schedule for 2002!

For more information on Genesis 3 schools  
and the leading manufacturers and trade  
publications that sponsor and believe in our  
philosophy and the Genesis Family, visit our  
website – [www.genesis3.com](http://www.genesis3.com) – or call us toll-  
free at (877) 513-5800.

Genesis 3: It's all about the future of our trade.

**GENESIS 3 A DESIGN GROUP**

Circle 16 on Postage Free Card





# Splash

*They're big, bold and colorful — a natural magnet for kids seeking thrills and fun. And they're downright beautiful to operators of commercial and public pools, who have turned to closed-flume slides as a way to offer a safe and affordable alternative to the high-cost entertainment found at the big waterparks. The outcome, says slide manufacturer John Stupfel, is the revival of community pools and a whole new reason why slides are back on track.*

When today's kids show up at a municipal swimming pool for a day of fun and excitement, they're not looking to swim laps.

To be sure, the standard for what can be called "aquatic fun" has been set pretty high in recent years by huge water theme parks, with their wave pools and whitewater rides and huge, twisting, open-flume slides. Nowadays, older "flat-water pools" just can't compete for summertime attention among active, thrill-seeking children — except in one arena.

Indeed, the availability these days of affordable waterslides has changed the competitive picture for traditional public and semi-public swimming pools. Each year, scores of these facilities are being retrofitted with slides that have led to a strong revival in community interest and family attendance.

This strategy has worked for one simple reason: From top to bottom, slides are great fun!

### **The Fun Factor**

Time and time again, you'll see kids take a quick ride down a slide, splash down with arms and legs flying — and climb right back up the stairs for another run — repeating the cycle for hours on end only to protest like mad when Mom and/or Dad says it's time to go.

Quiet waters that were once used almost exclusively for lap swimming and lifeguard training are now being reclaimed by kids eager to take their next ride.



# **Factors**

**By John Stupfel**



Indoors or out, closed-flume slides are a magnet for children of all ages — just the ticket for community pools seeking to compete with local waterparks without breaking their budgets.

The small community pools where this new phenomenon has taken hold couldn't have been retrofitted to include wave basins or raft rides, but they're just right for the small, semi-portable to the medium-sized, deck-mounted tube waterslides of the sorts made by our company, Aquatic & Site Technologies of Portland, Ore., and several others. In fact, the concept has

caught on so well that even some residential projects now feature these slides as key parts of their fun-oriented designs.

As suppliers, we're happy with this evolution and are looking for more and more ways to work with clients who are looking to add a whole new "play dimension" to the swimming-pool experience. We're witnessing the reinvention of the community

plunge and the development of a whole new low-cost definition for pool-related fun.

The low-cost factor is important: Few municipalities or commercial complexes these days can afford upgrades of the sort they might see as necessary to compete with waterparks, whose big, elaborate slides can easily cost much more than \$100,000. There are several manufactur-

Create nature's  
music in your  
own garden pond



Liners, pumps, pond kits  
& these patented products...

**PuriFalls® Waterfall Filter**  
**and PondSweep® Skimmer**

Los Angeles, CA (877) 772-7937  
Chicago, IL (888) 742-5772  
Pittsburgh, PA (888) 772-3278  
[www.pondsupplies.com](http://www.pondsupplies.com)



Circle 17 on Postage Free Card

Water Features  
Artificial Rocks  
Landscaping  
Pool Coatings?  
The  
**CARROUSEL PUMP**  
will do it all!



- \* Versatile
- \* Dependable
- \* Fast Cleanup
- \* Maneuverable
- \* Variable Speed
- \* Sealed Bearings
- \* Simple Operation
- \* Low Maintenance
- \* Increased Capacity

**Quikspray, inc.**

Box 327 - Port Clinton, OH 43452  
419-732-2611 fax 419-734-2628

Circle 59 on Postage Free Card

ers providing affordable slides that fit the budget and, as important, the physical scale of most pool facilities.

As the photographs accompanying this text show, these slides aren't to be confused with the small fiberglass slides popularized on residential pools in the '60s: What we're talking about here are closed-flume slides built to the highest public-safety standards – the kind you find in waterparks, only smaller.

Waterparks use their big, serpentine slides as billboards: They announce what's going on inside the park to anyone within eyeshot. The same phenomenon can be (and has been) put to work for community pools. Big, primary-colored slides are a magnet to families and a great way to attract members of the community to all of the benefits that come with swimming and playing in the water.

#### SMALLER SCALE

The slides available for community-pool applications are typically smaller

## Aesthetic Equations

Through the years, pool slides have been tagged as unsightly, intrusive and downright ugly. Even those of us in the trade are willing to agree from time to time that our massive serpentine structures and metal rigging offer their share of aesthetic challenges, and the fact that designs are always becoming sleeker and more streamlined indicates our own sensitivity to the issue and desire to deliver the *whole* design package, beauty included.

Be that as it may, we comfort ourselves with the thought that *any* slide is beautiful when you factor in the sheer joy it can bring to children and the economic benefits it delivers to a community aquatic facility.

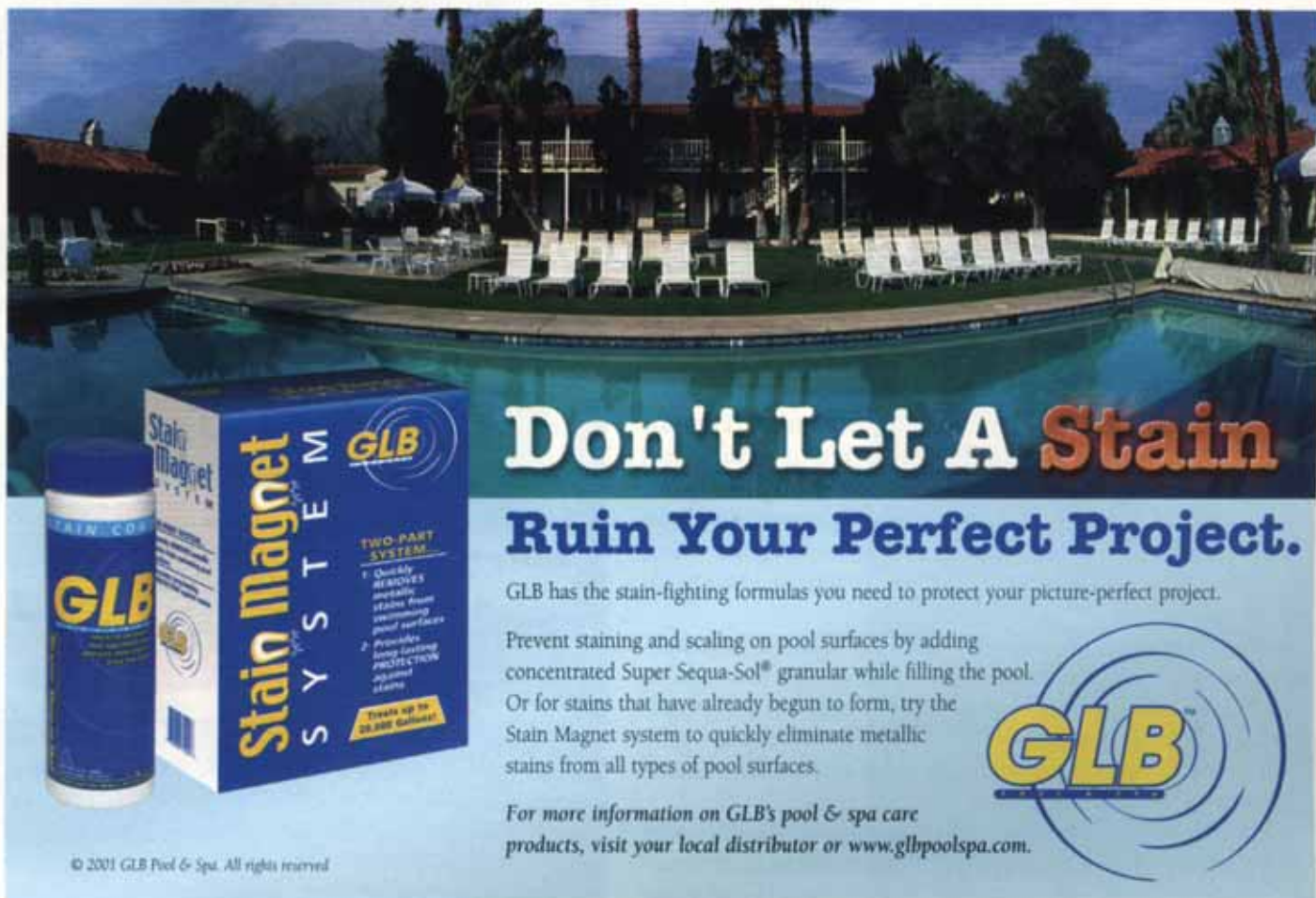
—J.S.

than those you find at a waterpark, where runs often stretch out for more than 100 feet and the structural footprints can take up the best part of an acre of land.

To accommodate that sort of mass-scale installation, the slide almost certainly has to be part of the facility from the planning stage forward. By contrast, the smaller-scale slides now available are designed for retrofitting as well as original construction; ours, for example, feature runs from 50 feet all the way down to a modest 8 feet and

have been installed in waterparks – but we've found that the market for our products is much, much broader than that.

Our tallest structure tops out at 18 feet high; water depths from three to five feet are required, depending on the size of the slide and the angle of entry to the water out of the end of the 27-inch-diameter tubes. The tubes are made with low-density polyethylene (LDPE) and are manufactured in three- or four-foot lengths in a variety of curves and radiuses that enable us to cre-



**Don't Let A Stain Ruin Your Perfect Project.**

GLB has the stain-fighting formulas you need to protect your picture-perfect project.

Prevent staining and scaling on pool surfaces by adding concentrated Super Sequa-Sol® granular while filling the pool. Or for stains that have already begun to form, try the Stain Magnet system to quickly eliminate metallic stains from all types of pool surfaces.

For more information on GLB's pool & spa care products, visit your local distributor or [www.glbpoolspace.com](http://www.glbpoolspace.com).

© 2001 GLB Pool & Spa. All rights reserved.

Circle 26 on Postage Free Card

ate a range of twisting configurations. The supports are made of PVC-coated steel piping, as are the platforms, steps, barriers and handrails.

The key to acceptance of these products is that they can fit in relatively small spaces. Most of these small slides require just ten feet of deck space from the edge, with an additional minimum of five feet of clearance for foot traffic around the structure – over areas stretching in length from 15 to 30 feet.

Construction is smaller scale, too. They're modular, so all that's required is bolting them together in the proper sequence. The smallest slides are simply affixed to the deck using common concrete deck anchors. For bigger models, the upright supports for platforms mounted at ten feet or higher sit atop 15-inch piers made with sonotubes, while small piers are constructed as tube supports and are anchored to the deck.

Plumbing is simple as well: The slides require a water flow of less than 20 gallons per minute – enough to wet the surface. This contrasts sharply with larger, open-flume-type structures, for which a tremendous amount of flow is needed literally to flush the bather down the slide. In our smaller-scale systems, gravity does most of the work.

The water for the slide is usually tied right into the pool's existing return system, with very little effect on pump performance. And when a separate pump is used, a fractional horsepower pump is usually all that's required to deliver water to the top of the slide via a flexible 3/8-inch line.

## THE TRUE TEST

The fact that these slide systems are easy on the budget and easy to install is great, but the most important factor from the operator's perspective is what they do for attendance.

Bigger kids love the fast action, thrills and physical exertion they find with the larger closed-flume slides, while families with younger children flock to the parts of the pool set up with smaller slides. And this is real "family value," because community pools and YMCAs generally charge just nominal fees for all-day use compared to the \$15 to \$30 charged for admission to waterparks.

Parents appreciate the price break and are aware as well that slide use is constantly supervised by at least one lifeguard – and often two. As long as safety signs are posted and a few basic rules are followed (including our prime directive – *slide only on your back, feet first*), injuries are avoided.

Naturally, safety is a huge concern for slide manufacturers. From the angle of the stairs or the spacing of barrier pickets to the dual-level handrails or the non-skid surface of the steps, every aspect of these slides is designed with safety in mind. And suppliers work with clients to make certain slides are placed suitably in relation to the movement of people in and out of the pool and around the slide structure to ensure everyone's safety and convenience.

For operators, the main outcome of slide installation drops right to the bottom line, through increased attendance. And those who've installed these slides often point out that not only do more people crank through the turnstiles, but they also tend to stay around longer. The result is increased concession sales and a quicker-than-expected return on the slide investment.

Ultimately, however, we always look beyond the fiscal benefits to the outcome that makes us happiest and proudest as slide manufacturers: Our products attract people to the water, and that's good for *all* aquatic sports and activities. **WS**



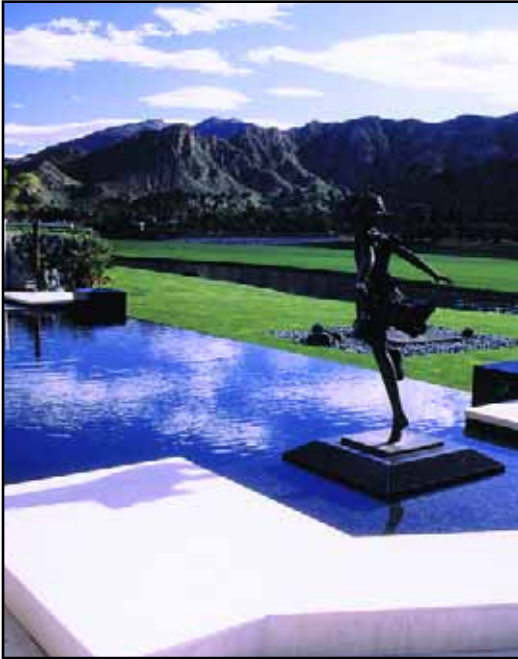
The vivid colors available with these slides and structures serve to brighten the aquatic setting – and help a public or semi-public pool boldly promote the fact that it's as much about fun as it is about exercise.



The support systems for these slides are designed for simplicity. Indeed, some of the smaller models can be mounted with conventional deck anchors or are even semi-portable. For some of the larger slides, such as the one seen here, the final appearance of the substructure can be elegant – on a relatively small footprint!



# The Genesis Global Design Awards: Celebrating the Art of the Waterscape



For the first time ever, designers and builders who work with water can participate in a truly global design competition.

Any waterscape of any form – pool, pond, fountain or water-feature – built anywhere in the world in the 20th Century is eligible for consideration.

An international panel will judge all entries on the basis of design continuity, aesthetics, integration with the environment, structural soundness and hydraulic excellence.

**Grand Prize Value is \$6,000, including \$2,000 in cash and accommodations and airfare to Barcelona, Spain.** The award will be presented during the International Pool Show to be held in Barcelona, October, 2001.

For complete information on entry requirements and submission guidelines, contact the Genesis 3 Office at (941) 743-2775 (ph) or (941) 764-6050 (fax).

258 Bangsberg Road  
Port Charlotte, FL 33952  
Email: [genesis3inc@usa.net](mailto:genesis3inc@usa.net)

**Or visit our Website:**  
[www.genesis3.com](http://www.genesis3.com)

Program co-sponsored with Genesis 3 by Horner Discus International





Beauty and tranquility are words on the lips of more and more consumers these days, and they're discovering with greater and greater frequency that ponds are just what they're after. Critical to meeting this rising demand, says zoologist and horticulturalist Jeff Rugg, is knowing what goes into creating healthy, clean water in the presence of plants and animals – and into setting these mini-ecosystems up for the long haul.



# NATURE'S

It's a tale of two professions: Pool and spa people are taught to keep things dead; pond people are taught to keep things alive. Pool people sell lots of chlorine; pond people sell de-chlorinator. Pool people sterilize; pond people fertilize. This contrast in approaches to basic water maintenance is perhaps the most significant difference between two trades that are coming into closer and closer contact with one another every day.

At issue between the two groups is whether to work against nature in a sterile system, or to work with it to create an ecosystem. Each discipline has

## ECOSYSTEM 101

In an "ecosystem approach" to maintaining water quality, almost everything must be kept alive. At the same time, however, the population levels of some organisms must be kept under control and in balance with the other organisms in the system.

An ecosystem is described as "balanced" when all of its constituent parts are neither limiting nor excessive relative to the survival of all the other parts. As a fish grows, for example, it might produce excessive waste relative to the size of the filtering system – hence the ecosystem would become unbalanced.

a foundation in the science of water chemistry and both have a place in the world – but beyond that, things really couldn't be much different.

As more and more pool/spa professionals move into water gardening and more and more landscape designers and architects get into pools and spas, there's an increasing need for all of us to understand these water-treatment distinctions and the basics of each approach. I come from the pond side, so I'll cover things from that perspective in a pair of articles – a science-oriented overview this time before we get more specific about pond installations next time.

When the balance exists, however, the ecosystem thrives – so finding that balance is, in a nutshell, the fundamental challenge of maintaining a living system.

All of the organisms in a particular ecosystem live within a range of conditions created by their interactions with one another as well as by the overall climate of the region; the microclimate, geology and geography of the specific setting; and the influences of people on the system. None of these factors is static for long, and each influences the balance of the ecosystem.

Striving for balance among these factors requires

# BALANCE

By Jeff Rugg

## Charting Distinctions

### Pool

Sterile to control algae and bacteria

Higher maintenance required to work against nature

High-pressure external pumps and filters

Deep (4 to 8 feet) with perpendicular sides

Require fencing

Formal look, with walkable decks and edges

No fish

No plants

No gravel

Skimmers use small debris baskets

Professional installers

Excavation earth usually discarded

Large construction footprints

High initial costs

### Pond

Living ecosystem designed to support plants, fish and bacteria in balance

Lower maintenance working with nature

Low-pressure submersible pumps and filters

Shallow (2 feet deep) to medium (3 to 5 feet) and stepped with plant and safety shelves to the bottom

No fences required

Informal landscaping and gravel edging

Fish in almost all water gardens

Plants are often the reason for having a pond

Rocks and gravel help create the ecosystem

Skimmers use large debris nets and filter mats to hold more debris and protect the fish

More D-I-Y kits sold, but professionals catching up

Excavated earth used for waterfalls and berms

Small construction footprints

Low initial costs

—J.R.

an understanding that the size of the system has absolutely everything to do with how much life it can support. The smaller the ecosystem, the harder it is to create a balance: The fewer the components there are to work with, the more likely it is for one small thing to tip the scale out of balance.

This is why it can be much harder to strike a balance in a small ecosystem such as a backyard pond than it is to hit the mark in something as big as a man-made lake. The smaller scale narrows the acceptable parameters for each factor and makes it more difficult to design in such a way as to make a suitable environment for plants and fish.

One of the most familiar design principles for pond people is known as “The Bucket Rule”: *You can only put two gallons in a two-gallon bucket.* In other words, each healthy ecosystem can only hold a specific amount of each component in the system, and failure stalks those who try to take out a component or put in more than two gallons of another component and expect the bucket not to overflow or break. Ultimately, a new and proper balance will establish itself, even if you don’t like the outcome!

To illustrate: Many ecosystem managers have tried removing the predators from an ecosystem to enable the prey animals to thrive. The prey animals will indeed do well for a time, but they will eventually overpopulate the ecosystem and will, in effect, try to cram three gallons into their ecosystem’s two-gallon bucket. Nature soon will reassert itself, and the prey animals will die of starvation, disease or some other catastrophe that will reset the balance.

### NATURAL CYCLES

To work with nature rather than against it, it’s important to understand not only that balance exists and will assert itself over time, but also that nature uses cyclical processes to achieve complex *sets* of balances in which each component is important.

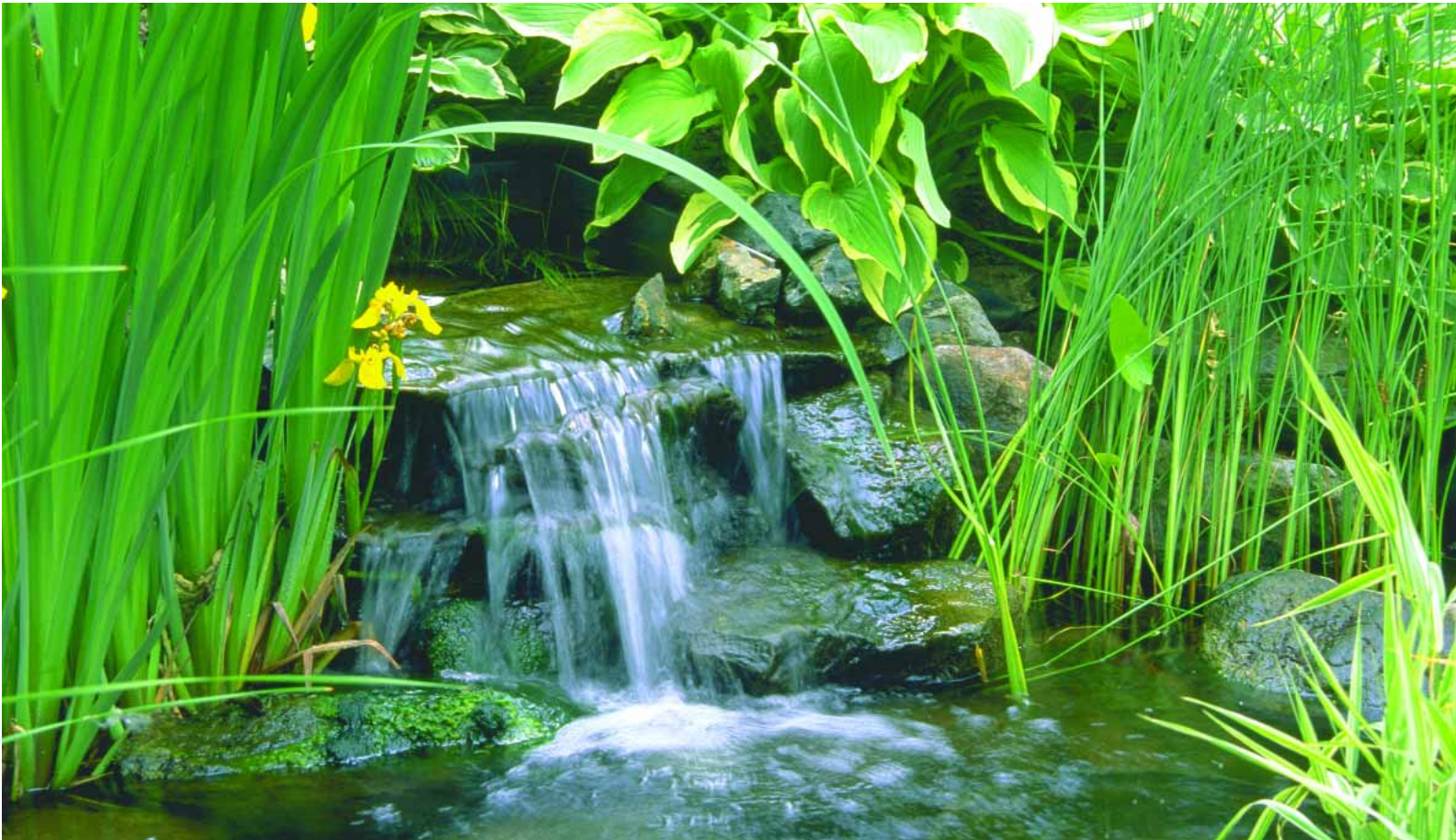
Energy from the sun and energy from the breaking down of chemicals (or digestion of food) is used, for example, to produce growth of plants, animals and microorganisms. Much of this energy is recycled from one organism to the next, and nutrient chemicals are also recycled from one organism to the next through consumption of the previous organism or its waste products.

Or consider the amazing nitrogen cycle: Nitrogen and hydrogen atoms from the air are transformed into ammonium molecules every time lightning strikes, and these molecules are then washed into the ecosystem with the rain. (The ammonium molecules also can be brought to the ecosystem through fertilizers.) Bacteria then break the ammonium down into nitrate.

Plants combine these nitrate molecules with other molecules to produce proteins. Next, animals eat the plants (or other animals that ate the plants) and eventually will release waste ammonia molecules. Certain bacteria consume the ammonia and release nitrite molecules into the ecosystem, and other bacteria consume the nitrite and then release nitrate into the ecosystem. This nitrate can be picked back up by plants, or it can be consumed by other bacteria that release nitrogen back into the air, where the process starts again.

This process, by the way, drives the whole planet, not just a pond.





And it's just one of many cycles that must be balanced in even the smallest of ecosystems. Indeed, all of the nutrients and minerals are constantly passing from one organism to another in a thriving ecosystem. Oxygen, carbon, iron, copper, phosphorus, hydrogen and all the other basic elements have their own cycles.

When one part of any cycle is removed, the whole cycle quits working and the consequences may prove deadly. If, for example, too many waste molecules of ammonia are added to a pond – either because there are too many fish and too much food or because there aren't enough bacteria to consume the waste – there will be a build-up of ammonia.

Ammonia is toxic to fish at very low levels. All it takes, in fact, is just 40 ammonia molecules per million water molecules to kill fish quickly, and physical stress that often leads to sickness or death begins at concentrations as low as 1 ppm. For its part, nitrite in a pond is toxic at any detectable level, while nitrate is quickly toxic at levels above 225 ppm.

(By way of comparison, chlorine is deadly to fish at 0.5 ppm, explaining why a pool or spa maintained with chlorine at 1 to 3 ppm is a big problem where fish are concerned.)

## FINDING COMFORT ZONES

While it is certainly true that natural ecosystems operate within narrow ranges for a few of their parameters, it can also be said that most organisms in any healthy ecosystem can tolerate wide fluctuations in some of their chemical and environmental conditions.

A goldfish or water lily, for example, can tolerate a range of temperatures from just above freezing to around 100 degrees Fahrenheit, but add just a bit of chlorine and both are goners. And when several parameters are at the edge of the toler-

ance range for any organism, it will take less fluctuation in some seemingly unrelated (and usually not very bothersome) parameter to kill them.

The basic concept isn't complicated: The healthier the ecosystem, the healthier its inhabitants will be, and the healthier an organism is, the greater its ability to fight against a single problem. As simple as that principle seems, however, the complications enter when you consider that the level of a given chemical can vary from ecosystem to ecosystem – and vary when it comes to how much is required

## Tracking Similarities

- ❑ Both pools and ponds are backyard entertainment and relaxation centers that offer beauty, excitement and fun.
- ❑ Similar design, creativity and installation skills are required to cope with utilities, permits, safety, fencing, excavation, electrical and plumbing tasks.
- ❑ Pumps, piping, and filters are used to circulate and clean the water.
- ❑ Concrete or flexible liners are used to retain the water.
- ❑ Skimmers are used to collect floating debris and protect the pump.
- ❑ Both are available in inground and aboveground designs.
- ❑ Both installations often require or benefit from a waterfall.
- ❑ Installations for both should blend into the landscape, and they can be simple to install or quite elaborate.
- ❑ Both require maintenance and related chemicals unique to each product.

–J.R.

by individuals within the ecosystem.

In essence, managing ecosystems is about governing the factors within your control (populations of fish, types and quantities of plants, degrees of aeration and filtration), observing the consequences of your actions and making adjustments as you go. Experience helps when it comes to recognizing what's happening, but the truth is that these systems can be tricky—especially if the pond is small.

There is, of course, one factor with a “comfort zone” that is more important than most others. Oxygen is 21% of the atmosphere—around 210,000 ppm in the air around us. Good quality water has as much as 13 ppm of free oxygen, so fish already live in an environment low in oxygen and there isn't much room for lower oxygen levels in a pond. That's why aeration can be so important.

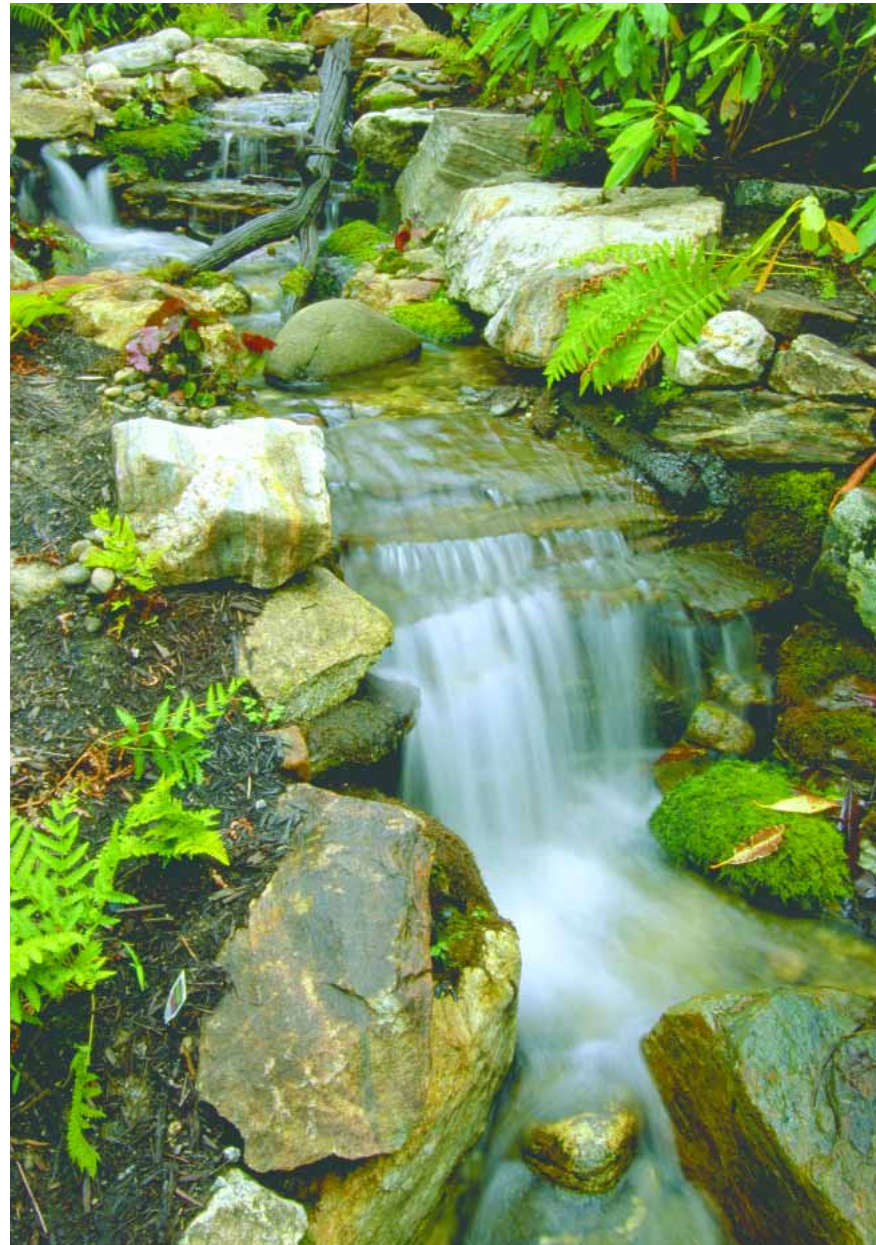
We could roll on and on through factor after factor, but let's consider the basic point made: All of these processes are critical to life, and in a pond that means learning to balance the elements within the scale of the system. If you succeed in establishing such balances, then the system will work. If you don't, nature will do it for you—and odds are you won't like the results!

It's also important to note that none of this is to say that life itself is fragile; rather, the delicacy comes in maintaining a balance of life that serves the specific needs of a man-made ecosystem. The fact is, nature is quite persistent, and there are really very few sterile environments on earth where nothing survives—which is why maintaining a sanitized swimming pool environment is so difficult.

## THE STERILE SYSTEM

Whenever people try to keep growth of plants or animals to a minimum, they can expect nature to try to fill the voids. Even the culture of a single organism, such as a corn crop, will be infested with insects, diseases, weeds and larger organisms such as crows, raccoons and deer as nature fills the void. The same holds true for a sterilized swimming pool.

At times, it can be tough for people who work to maintain water in a sterile state. After all, water is the growth environment for many life forms, some benign and some



deadly to humans. While it is easy to understand the desire to maintain the water in a swimming pool or spa in a crystal clear and sterile state, it is not easy to do—especially outdoors, where algae and bacteria both travel through the air in a spore stage.

To get the job done, aggressive chemicals such as chlorine, bromine, copper compounds, ozone and others must be repeatedly applied to pool water to try to keep up with nature's attempts at filling the void. Any other kind of sterilizers, including ultraviolet light or even boiling, must be run continuously. No matter what is used to sterilize the water, it is difficult to keep it sterile, and it must be continuously monitored.

Just as control of a sterile system requires an understanding of the chemicals and processes involved, so too must the pondkeeper have an understanding of the

factors that keep an ecosystem alive.

A man-made watershape that mimics nature is still an artificial ecosystem that requires control and understanding. Just as with a pool or spa, a good pond design has to be followed by good installation—and by someone doing the job of keeping the system working. The less work the pondkeeper or homeowner has to do, the more likely it is that he or she will actually do it! **WS**

*Next: Establishing a largely self-sustaining pond system—one that requires minimal labor on the part of the homeowner or pond keeper and remains beautiful—requires understanding and proper implementation of several key components, including the filter, pond container and circulation system. We'll cover these components and more in the second part of this article.*

# 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.

Reader Service Number

## ADVERTISER INDEX:

2	3M Industrial Minerals (pg. 25)
6	Advanced Aquaculture Systems (pg. 38)
3	Air-O-Lator (pg. 21)
10	Aquamatic Cover Systems (pg. 3)
7	Aquatic & Site Technologies (pg. 66)
	Aries Enterprises (pg. 46)
15	Atomizing Systems (pg. 62)
28	Carolina Solar Structures (pg. 65)
1	Clear Tech Automation (pg. 39)
5	Colorado Lining Co. (pg. 65)
8	Cover-Pools (pg. 12)
18	Double D Stoneworks (pg. 64)
9	Eco-Matic Salt Water Systems (pg. 65)
24	Engelhard (pg. 27)
19	Fiberstars (pg. 72)
	Fountains & Ornamental Stone (pg. 46)
55	Fountains for Pools (pg. 16)
16	Genesis 3 Schools (pg. 47)
48	Genesis 3 Global Design Awards (pg. 53)
26	GLB Pool & Spa (pg. 51)
22	Grate Technologies (pg. 13)
13	Hobbs Architectural Fountains (pg. 64)
44	International Pool & Spa Expo (pg. 19)
23	Jack's Magic Products (pg. 9)
27	Macalite Equipment (pg. 24)
32	Master Supply (pg. 63)
57	Meyco Products (pg. 71)
25	Nathan Kimmel Co. (pg. 69)
29	National Pool Tile (pg. 16)
4	NSPI Region III (pg. 61)
47	Peninsula Products (pg. 66)
49	Pentair Pool Products (pg. 11)
17	Pond Supplies of America (pg. 50)
11	Pool Cover Specialists (pg. 15)
33	Pool Shower (pg. 69)
59	Quikspray (pg. 50)
20	Regal Plastics (pg. 68)
30	Rock Formations (pg. 17)
21	Rock & Water Creations (pg. 7)
62	Roman Fountains (pg. 14)
31	Safe Guard Surfacing (pg. 68)

14	Spectrum Pool Products (pg. 8)
58	Spray Force Mfg. (pg. 45)
35	Standard Bronze (pg. 62)
42	Stegmeier Corp. (pg. 20)
52	System Dynamics (pg. 26)
	Transtec (pg. 67)
65	Universal White Cement (pg. 67)
64	Vak Pak (pg. 23)
69	Waterworks Int'l. (pg. 46)
67	Western Rock & Boulder (pg. 2)

## OF INTEREST INDEX:

100	CemRock Landscapes (pg. 62)
101	Second Look (pg. 62)
102	Artistry in Mosaics (pg. 62)
103	Sundance Spas (pg. 62)
104	GardenSoft (pg. 63)
105	Fii Focus (pg. 63)
106	Clear-Tech Automation (pg. 63)
107	J.M. Huber Corp. (pg. 64)
108	Aquamatic Cover Systems (pg. 64)
109	Aquanetics Systems (pg. 64)
110	W.R. Meadows (pg. 64)
111	Mortex Mfg. Co. (pg. 65)
112	Pentair (pg. 65)
113	Polaris (pg. 66)
114	Inter-Fab (pg. 66)
115	Multicoat Corp. (pg. 66)
116	Crystal Fountains (pg. 66)
117	Eco-Matic (pg. 67)
118	Zodiac Pool Care (pg. 67)
119	Vixen Hill (pg. 67)
120	WMC Corp. (pg. 67)
121	Design Imaging Group (pg. 68)
122	Fujiwa Group (USA) (pg. 68)
123	Ruud Lighting (pg. 68)
124	WESCO Fountains (pg. 68)
125	Hayward Pool Products (pg. 69)
126	Quikspray (pg. 69)
127	Aqua Vac Systems (pg. 69)
128	Southern Grouts & Mortars (pg. 69)

REGION III NSPI

# Conference and Exhibition

february 15 & 16, 2002  
irving (dallas), texas



Sandler Pools, Plano, TX



Wise Pool Company, Conroe, TX



Texas Pools, The Woodlands, TX



Cody Pools, Austin, TX

CAPTURE  
the MAGIC!

Water in Motion

MEMBER



NATIONAL SPA & POOL  
INSTITUTE

for an invitation to exhibit call  
**800.548.6774** in Region  
**505.293.0113** out of Region  
limited space available

*Experience the  
Art of Astonishment*

Circle 4 on Postage Free Card

## ARTIFICIAL ROCK STRUCTURES

Circle 100 on Reader Service Card



CEMROCK LANDSCAPES provides its clients with naturalistic environments, play structures and theme elements made of artistically constructed artificial rock. The company has 25 years' experience in crafting rock, water and aquatic features that are indistinguishable from the real thing, whether the natural inspiration is from a rock formation, a tree or a patch of aquatic flora. **CemRock Landscapes**, Tucson, AZ.

## FRONT-LOADER ATTACHMENTS

Circle 101 on Reader Service Card



SECOND LOOK offers a line of attachments designed for use with (minimum) 40-hp, 3/4-ton skid loaders/tractors. They include an attachment that transforms skid loaders and tractors into tree cutting and removal machines; a grapple fork for lifting loads as heavy as 1,200 pounds and as large as 27 railroad ties; and a buck fork used in place of a typical bucket to handle loose material such as concrete slabs or tree branches. **Second Look**, Burr Oak, KS.

## MOSAICS FOR POOL ENVIRONMENTS

Circle 102 on Reader Service Card



ARTISTRY IN MOSAICS offers standard mosaics to go along with its custom-design capability. The Pool Pals line of handcrafted ceramic tiles are designed to highlight small details including steps or swim-outs – or to provide a spectacular aquatic scene

to cover the floor and walls. Patterns include aquatic life from dolphins and sailfish to turtles, seahorses and mermaids. **Artistry in Mosaics**, Fort Pierce, FL.

## PRE-FABRICATED IN-GROUND SPAS

Circle 103 on Reader Service Card



SUNDANCE SPAS has introduced its Architectural Series. Designed to bridge the gap between gunite and portable spas, the line's two models allow for a wide range of hydrotherapy options without the difficulty that comes with trying to include those features in concrete construction. The shells have multi-level seating and 25 jets and are set up to work with a variety of architectural coping treatments. **Sundance Spas**, Chino, CA.



Creating exciting fog effects for indoor and outdoor areas. Locations include themed restaurants, hotel lobbies, theatrical presentations, fountains, waterfalls, theme parks and rain forests. Fog is created by industrial quality, high pressure pump systems using low-RPM motors. Ruby-orifice nozzles guaranteed for life against orifice wear.

## ATOMIZING SYSTEMS INC

Manufacturers of COLD FOG® systems

1 Hollywood Avenue • Ho-Ho-Kus, NJ 07423-1433  
Phone: 201-447-1222 • Fax: 201-447-6932  
Website: [www.coldfog.com](http://www.coldfog.com) • email: [engineering@coldfog.com](mailto:engineering@coldfog.com)

Circle 15 on Postage Free Card

## GENTLEMEN PREFER BRONZE (AND GENTLEWOMEN TOO)

### SPRAY INLETS



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

*Atlanta*

Bayonne, N.J. 07002

Phone: (201) 339-1351-2

Circle 35 on Postage Free Card

## PLANT-INFORMATION SOFTWARE

Circle 104 on Reader Service Card



GARDENSOFT has developed PlantMaster software, a CD-based, time-saving presen-

tation tool that features comprehensive plant portfolios, plant profiles with color photographs, maintenance schedules, plant reports and a garden-idea photo library. Coverage includes trees, shrubs, ground covers, vines, annuals, perennials and grasses for all regions of North America.

GardenSoft, Thousand Oaks, CA.

## UNDERWATER SPOTLIGHTS

Circle 105 on Reader Service Card



FII FOCUS has introduced its Model SL-33AB underwater spotlight. Made of brass, the luminaire

is designed for lighting up small pools, ponds or waterfeatures with either surface-area illumination or to project out of the water onto small fountains or waterfalls up to 10 ft. high. Available in a range of wattages and beam spreads, the product also comes with dark blue, amber, green or red filters. Fii Focus, Lake Forest, CA.

## AUTOMATIC CHLORINATING SYSTEM

Circle 106 on Reader Service Card



CLEAR-TECH AUTOMATION offers Pure & Clear, an automatic pool chlorinating system that uses ordi-

nary salt dissolved in water to make chlorine at the touch of a button. The system features an electrolytic cell that takes care of the salt conversion as well as a controller that determines the amount of chlorine the cell will produce. The system works for pools up to 35,000 gal. capacity. Clear-Tech Automation, Pompano Beach, FL.



## Pool Design Templates

The most widely used templates in the industry. Quickly and easily create professional drawings. Six sets of award winning designs plus mechanical and product templates.

## Master Air-Bar

Millions of bursting air bubbles will give your spa exhilarating action. The installation of the air bar is simple and professional by using these unique spa fittings, available in white, black and grey.



## Air-Injectors & Wall Fittings

The famous Master Supply air injectors, wall returns and water barriers designed by builders who understand your needs.



## M5400 RECESSED EYEBALL

The **ONLY** return fitting with the exclusive Master Supply Water Barrier and the patented "Super Flow" tapered eyeball.

ONE STOP SHOPPING FOR  
ALL POOL CONSTRUCTION  
AND PLUMBING NEEDS.



# master supply

24 HOUR FAX LINE (626) 967-4425

**PHONE (626) 967-5544**

Ask about FREE SAMPLES and CATALOG

## MARBLE POOL-FINISH AGGREGATE

Circle 107 on Reader Service Card



J.M. HUBER CORP. supplies DuraWhite, a marble aggregate designed for use in finishing the interiors of swimming pools and spas. The product is engineered to go on easily and consistently from bag to bag, providing good workability, high durability and a very white finish that's smooth to the touch, easy on sensitive feet and gives algae fewer places to take root. **J.M. Huber Corp.**, Atlanta, GA.

## HIGH-INTENSITY UV STERILIZERS FOR PONDS

Circle 109 on Reader Service Card



AQUANETICS SYSTEMS manufactures the CUV line of compact, high-intensity UV sterilizers for a variety of applications, including both saltwater and freshwater ponds. Flow rates can be adjusted to provide intensity levels

from 15,000 to 90,000 microwatt-seconds/cm<sup>2</sup> for control of water-borne viruses, bacteria, algae and larger microorganisms, and the lamps last 14 months. **Aquanetics Systems**, San Diego, CA.

## AUTOMATIC COVER FOR VINYL-LINER POOLS

Circle 108 on Reader Service Card

AQUAMATIC COVER SYSTEMS offers a universal in-wall track receptor for easy installation of automatic covers on any steel- or polymer-wall pool panel. There are two types of receptors: one with a universal liner bead, the other without if the installer wants to use the factory bead receiver. These receptors eliminate the need for a cantilevered track edge and allow for use of any coping treatment. **Aquatic Cover Systems**, Gilroy, CA.



## FOAM FOR FILLING EXPANSION JOINTS

Circle 110 on Reader Service Card

W.R. MEADOWS manufactures Deck-o-Foam expansion-joint filler, a tough, flexible, lightweight, durable foam designed to replace brittle asphalt-impregnated fillers. The product has a convenient removable portion to ensure a uniform, sealable void in the joint. The product is available in 1/4 in. thickness in 100-ft. rolls or in 1/2 in. thickness in 50-ft. rolls in widths from 3 to 48 in. **W.R. Meadows**, Hampshire, IL.



# TENNESSEE STONE

*Over 30 styles to choose from!*

MOSSY BOULDERS • CREEK STONE  
WEATHERED STACK STONE  
FLAGSTONE • QUARRY STONE

For more information contact us at:  
(423) 949-8580 or [www.tennesseeestone.com](http://www.tennesseeestone.com)

Double D Stoneworks, Inc. • HCR 63-850 Dunlap, Tennessee 37327

**SUPPLIERS OF NATURAL & ARTIFICIAL STONE**

Circle 18 on Postage Free Card

# HOBBS

a hobbs ital. company

## ARCHITECTURAL FOUNTAINS

FOUNTAIN COMPONENTS  
FLOATING FOUNTAINS  
MANUFACTURING  
RESTORATIONS  
TECH SUPPORT  
ENGINEERING  
DESIGN

3786 DeKalb Technology Parkway • Atlanta, GA • 30340  
770.457.3000 • FAX 770.457.4225 • [hobbsfountains.com](http://hobbsfountains.com)

Circle 13 on Postage Free Card

## POOL-DECKING MATERIAL

Circle 111 on Reader Service Card



Mortex Mfg. Co., Tucson, AZ.

MORTEX MFG. CO. supplies the Marquee line of pool decking and pavements. Designed to handle temperature extremes, the product is specifically designed to defy cold weather and resist freeze/thaw damage while staying far cooler in hot weather than ordinary concrete or toppings. The non-slip coating is available in 11 colors including brass, mocha, silvertone and sunset rose.

## FIBEROPTIC LIGHTING BROCHURE

Circle 112 on Reader Service Card



PENTAIR has published a four-page brochure on the Fibervworks lighting system for pools, spas and landscapes. Intended for installation by trained professionals, the system is designed for efficient light transmission and distribution, delivering illumination up to 85% brighter than other systems. It also offers seven colors and includes side-illuminating cables that bring dramatic accents to pool perimeters. **Pentair**, Sanford, NC.

## The "Natural Solution" for PROFITS

Most Reliable Salt Chlorinator Available

Superior Dealer Support

Highest Customer Satisfaction

**5-Year** Limited Warranty

Special Try-Me Offer



800.662.4364  
www.ecomatic.com

The "Natural Solution" for Pools and Spas™

Circle 9 on Postage Free Card



## POND & LAKE LINERS

- CUSTOM FABRICATED PANELS UP TO 25,000 SF
- PLASTIC & RUBBER POND LINERS
- INSTALLATION & SUPERVISION
- EROSION CONTROL & SOIL AND TURF REINFORCEMENT

COLORADO: 800-524-8672

TEXAS: 888-546-4641

SO. DAKOTA: 800-661-2201

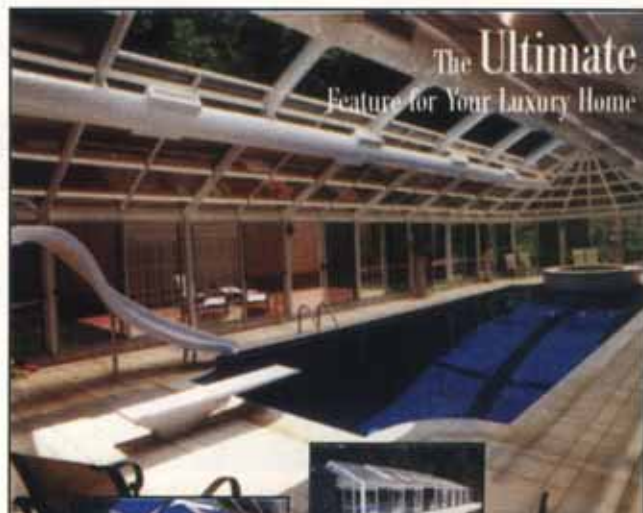
CALIFORNIA: 877-578-5000



WWW.COLORADOLINING.COM

Colorado Lining  
INTERNATIONAL

Circle 5 on Postage Free Card



The Ultimate Feature for Your Luxury Home



CAROLINA SOLAR  
STRUCTURES

TELEPHONE: (828) 684-9900

FACSIMILE: (828) 684-9977

AIRPORT ROAD INDUSTRIAL PARK  
8 LOOP ROAD, ARDEN, NC 28704

WE'VE GOT YOU COVERED

Circle 28 on Postage Free Card

## AUTOMATED GRANULAR CHLORINE FEEDER

Circle 113 on Reader Service Card



POLARIS offers the Watermatic Pro System C-1, an affordable, completely automated chlorinating system designed for the commercial pool and spa market. Easy to install, operate and maintain, the system includes a controller, a flow cell, a feeder assembly and a peristaltic pump that feed a measured amount of calcium hypochlorite into the circulation system for vessels from 700 to 150,000 gal. or more. **Polaris, Vista, CA.**

## LADDERS AND RAILS FOR POOLS

Circle 114 on Reader Service Card

INTER-FAB manufactures pool ladders and rails in a variety of configurations and finishes. The three ladder styles are available in five colors with up to five steps and four tread types (plastic, stainless steel, safety grip and powder-coated stainless). The rails are available in nine configurations with various spans. They come with either textured white, earth tone, patina, copper vein or black finishes and include matching escutcheons. **Inter-Fab, Tucson, AZ.**



## COATINGS AND DECK FINISHES

Circle 115 on Reader Service Card



MULTICOAT CORP. has published a brochure on its lines of multipurpose coatings and deck finishes. The eight-page booklet discusses the advantages of key products, including Scratch Kote for pool-plaster renovations and Krete Kote for concrete-deck restoration – as well as products for wall texturing and above- and below-grade waterproofing (ideal for ponds and waterfeatures).

**Multicoat Corp., Rancho Santa Margarita, CA.**

## INTERACTIVE WATERPLAY COMPONENTS

Circle 116 on Reader Service Card

CRYSTAL FOUNTAINS offers the Splash 'n' Play line of interactive waterplay components, including the NLG series of ground jets. The cast-bronze NLG jets are set into spray aprons in public playgrounds to provide a gentle spray that can be controlled and timed to provide varied play opportunities for children. The four models shoot jets of water at different angles or combinations of angles. **Crystal Fountains, Concord, Ontario, Canada.**



### SafetyTube® Slides offer:

- Straight, 90°, 180°, & 360° slide rides
- Up to a 50-foot-long **smooth** ride
- Professionally engineered SafetyTube® Design
- Multiple stair configurations to match your deck
- Minimal water activation & 3-foot minimum water depth
- A variety of UV protected colors
- All models exceeding CPSC & ASTM Standards
- Custom designs

**Aquatic & Site Technologies, Co.**

1-888-248-7665

[sales@astslides.com](mailto:sales@astslides.com) [www.astslides.com](http://www.astslides.com)

Circle 7 on Postage Free Card

[www.easyspread.com](http://www.easyspread.com)

**PPI**

**Easy Spread™**

Looking for answers to the challenges of pool plastering?

Pump easier and faster  
Reduce segregation  
Enhance pigments  
Reduce checking  
Increase cohesiveness  
Increase spreadability  
Increase productivity  
Save money



Works with all pool systems including Pebble and Marcite.

**Peninsula Products Inc.**

P.O. Box 15299  
Bradenton, FL 34205-5299  
Phone: 941-795-6623  
Fax: 941-795-4736

*"Creating Workable Solutions"*

Circle 47 on Postage Free Card

## SALT-WATER CHLORINATOR

Circle 117 on Reader Service Card



ECO-MATIC offers an alternative to the use of packaged chlorine through an electrolytic process that converts common salt into sanitizing chlorine. The system controller is connected to the same power source as the pool pump and regulates the electrolytic cell to keep the water safe, crystal clear and free of any bacteria, viruses or algae – without any residues or unwanted by-products. **Eco-Matic**, Newport Beach, CA.

## SUCTION-SIDE POOL CLEANER

Circle 118 on Reader Service Card



ZODIAC POOL CARE offers the Baracuda G3, a suction-side automatic pool cleaner with just one moving part. That one part, the diaphragm, does all the work, allowing for increased reliability, very low maintenance and very little noise. The device thoroughly cleans inground pools (including the walls), automatically removing dirt, debris, bugs, twigs, leaves and pebbles. **Zodiac Pool Care**, Fort Lauderdale, FL.

**Zodiac Pool Care**, Fort Lauderdale, FL.

## WOODEN GARDEN STRUCTURES

Circle 119 on Reader Service Card



VIXEN HILL has released literature on its wooden porch systems, teahouses, garden structures, gazebos, pavilions and more. The 28-page brochure goes into detail on three wood-grade options and covers the full array of available sizes and styles, including Victorian, Queen Anne and Pennsylvania Dutch. Also offered are basic assembly information and facts on optional features and details. **Vixen Hill**, Elverson, PA.

## POOL/SPA PRODUCT CATALOG

Circle 120 on Reader Service Card



WMC CORP. has published its catalog of pool and spa products. Divided into sections covering various pumps, filters, chlorinators and parts, the 24-page booklet includes pump curves, performance data, application guides, pricing information, listings of features and accessories and exploded views of many products for easy parts identification. **WMC Corp.**, Pacoima, CA.

## POOL PEBBLES

- Imperial White
- Royal Gold  
(same as Rainbow/Golden Pearl)
- Majestic Black
- Coastal Bronze
- Sea Green



**Transtec, Inc.**

P.O. Box 494 • Pass Christian • MS 39571  
800-511-6184 Fax 228-452-0306

**Need More  
Information?**

**Use the Reader  
Service Card**



# UNIVERSAL

WHITE CEMENT COMPANY, INC.

Introducing a tested Universal product in a new package  
**Universal Unique Patented Pozzolan Blend  
U-Add-Poz**

**U-Add-Poz:  
Improves Troweling  
Extends Finishing Time**

Improves aggregate bonding  
Increases chemical resistance  
Increases strength  
Reduces alkali silica reactivity  
Lowers alkalinity in start-up

Maintains high whiteness  
Reduces spot etching  
Reduces cracking  
Reduces mottling  
Reduces efflorescence  
Reduces color fade

**UNIVERSAL WHITE CEMENT**

**1-800-860-6928**

**5732 N.W. Market St.  
Glendale, Az. 85301**

Circle 65 on Postage Free Card

## SOFTWARE FOR LANDSCAPE DESIGN

Circle 121 on Reader Service Card



DESIGN IMAGING GROUP offers DesignWare software in three versions: Photo Imaging enables the designer to create photo-realistic sales presentations to help clients visualize changes; Site Planning is CAD software for generating two-dimensional working plans to scale; and At Night is a system that allows the designer to show clients the effects that lighting will have on a landscape. **Design Imaging Group**, Holtsville, NY.

## SWIMMING POOL/SPA TILE

Circle 122 on Reader Service Card

FUJIWA GROUP (USA) has released a catalog covering its porcelain swimming pool and spa tiles. The 32-page, full-color booklet covers a range of 1-by-1-, 2-by-2-, 3-by-3-, 2-by-6- and 6-by-6-in. tiles in a broad array of colors and finish textures. Most come in square-foot panels and feature beads, beaks, caps and down-angle trims to match. Also covered are 3/4-in. glass mosaics. **Fujiwa Group (USA)**, Anaheim, CA.



## LIGHTING DESIGN AND INSTALLATION GUIDE

Circle 123 on Reader Service Card



RUUD LIGHTING has reissued its 24-page guide to landscape lighting design and installation. Designed to take the guesswork out of selecting low- and line-voltage luminaries and components, the booklet includes more than 130 photographs, illustrations and charts to show lighting techniques, installation basics and luminaire details. Also included is a special planning section. **Ruud Lighting**, Racine, WI.

## INTERACTIVE-FOUNTAIN CONTROL VALVES

Circle 124 on Reader Service Card

WESCO FOUNTAINS introduces pre-engineered, modular control valves for interactive fountains. Each module includes a high-speed, low-voltage, submersible sequencing valve in a fiberglass sump that features a non-skid safety grate and a solid-brass nozzle flush-mounted in the grate for safety against toe entrapment. Electronic signals "switch" the water up to 20 times per second. **WESCO Fountains**, Nokomis, FL.



# IT PAYS TO PLAY IT SAFE

Designed with safety in mind, SafeGuard Surfaces give competitors a run for their money. Our shock-absorbant material is made from recycled rubber which prevents you from losing your footing, while the urethane we use is environmentally friendly.

P.O. Box 801 St. James, NY 11780  
 800-899-8703 Fax: 631-360-9575  
[www.safeguardsurfacing.com](http://www.safeguardsurfacing.com)  
 e-mail: [sales@safeguard@playsurface.com](mailto:sales@safeguard@playsurface.com)

Circle 31 on Postage Free Card

# 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 20 on Postage Free Card

## LARGE-CAPACITY CARTRIDGE FILTERS

Circle 125 on Reader Service Card



HAYWARD POOL PRODUCTS has introduced SwimClear large-capacity cartridge filters as part of the integrated Totally Hayward System of products. The filters come with 200-, 300-, 400- or 500-sq.ft. cleaning capacities for use on a range of pool sizes and are designed to reduce maintenance time and extend cleaning cycles to last up to an entire season. The filter also features an automatic air relief valve. **Hayward Pool Products**, Elizabeth, NJ.

## COMMERCIAL POOL CLEANERS

Circle 127 on Reader Service Card



AQUA VAC SYSTEMS has published a brochure on its commercial pool cleaners, including Aqua King and Aqua King Commander (with remote control) for pools 30-by-60 ft. and larger and Aqua Prince and Tiger Shark for pools 30-by-60 ft. and smaller. The motorized units have their own filters. Also described is the Hammer-Head vacuum system for service and commercial use. **Aqua Vac Systems**, West Palm Beach, FL.

## PUMP FOR HEAVY-BODIED COATINGS

Circle 126 on Reader Service Card

QUIKSPRAY has introduced the Carrousel Model #15010TBM-3-GAM pump for spray application of heavy-bodied shotcrete and pool coatings. The pump uses the peristaltic principle for moving aggregated products, so no internal, moving parts come in contact with the material – hence low maintenance. The variable-speed pumping capacity ranges up to 2 cubic yards of material per hour. **Quikspray**, Port Clinton, OH.



## SPRAYED DECK FINISHES

Circle 128 on Reader Service Card

SOUTHERN GROUTS & MORTARS offers Southcrete, a sprayed deck finish that transforms worn concrete decking to a fresh look that resists mildew, thermal shock and most chemicals. The low-maintenance surface is also slip-resistant and comfortable under foot, making it ideal for use on pool decks and walkways. The system comes in 15 colors and nine standard layout patterns. **Southern Grouts & Mortars**, Pompano Beach, FL.



1213 Santa Fe Avenue • Los Angeles, California • 90021

## POOL PLASTERER'S DISCOUNT PLACE

IF WE DON'T HAVE IT,  
WE'LL GET IT FOR YOU FAST!!!

**800-421-0005**

[www.nathankimmel.com](http://www.nathankimmel.com) or [plastering-nk.com](http://plastering-nk.com)

- |                         |                   |
|-------------------------|-------------------|
| • Machine Parts         | • Tan Hoses       |
| • New and Used Machines | • Poly Sheeting   |
| • Trowels               | • Gunite Shoes    |
| • Hose Fittings         | • Boots           |
| • Nozzles               | • Gloves          |
| • Safety Items          | • Custom Supplies |
| • Tapes                 | • Much, Much More |

Discount Pricing  
Same Day In Stock Shipping

**CALL FOR  
FREE CATALOG!**

Circle 25 on Postage Free Card

Pictured Below Is  
Our Stainless Steel  
Patented BS-2000  
Model

ADA Compliant Valves

A Foot Shower

A Standard  
Hose Bibb

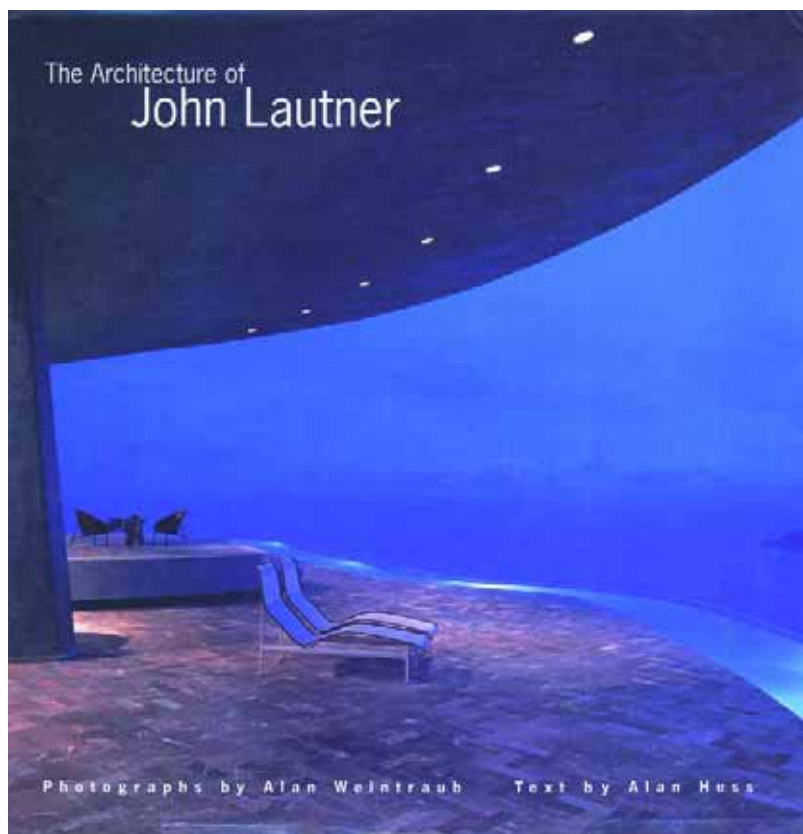
Please Visit Our Website

Call Toll Free:  
1-(866)-SHOWER-1



517 Industrial Drive ~ Suite 2~  
Woodstock, GA 30189  
Website: [WWW.poolshower.com](http://WWW.poolshower.com)

Circle 33 on Postage Free Card



## A Glittering Treasure

Looking for inspiration can be like mining for gold. You sift and pan through mountains of muck before unearthing a nugget of real value. And when you *do* come upon a resource that teaches and inspires you to reach for greater heights of creativity in your designs, the payoff is a hundred-fold.

Knowing where to look helps, and that's what this new column is all about.

The first book I'll discuss is an unexpected treasure of incalculable value. Before I read *The Architecture of John Lautner* (text by Alan Hess, photographs by Alan Weintraub, published by Rizzoli, New York), I couldn't imagine what a watershaper in Dallas would learn from a progressive modern architect from California.

As it turns out, the works of this student of Frank Lloyd Wright have in many respects changed the way I view water, especially as it relates to architecture and working with a project's setting.

The book follows Lautner's nearly 60-year career with concise text and stunning illustrations. In his earlier works, we see a budding artist whose designs closely resembled those of Wright and his mentor's residential architecture. As his career progressed, however, Lautner expanded magnificently upon the philosophy of organic architecture as he learned it at Taliesin and made it

**The works of this student of Frank Lloyd Wright have in many respects changed the way I view water, especially as it relates to architecture and working with a project's setting.**

the basis for wildly creative designs, many of which now stand as true American masterpieces of the 20th Century.

Lautner's use of water serves as an interesting and important subtext mirroring the trajectory of his career. In his earlier works, we see swimming pools and waterfeatures that are fairly mundane and unimaginative compared to those he designed later. In his middle years and in his most recent works, however, the presence of water becomes completely integral to the overall design and far more creative in execution.

His use of water to connect interior and exterior spaces, for example, or to lead the eye to distant views or to echo shapes and geometry – it's truly mind-expanding stuff.

Featured projects including "The Pacific Coast House," "The Elrod House," "The Arango House" and "Silvertop" have become icons of modern residential design, and they stand as testaments to the power and flexibility of water-shapes to enhance residential settings.

Throughout his career, Lautner worked tirelessly to create something original in each design. His work became so creative that at points in his career, building departments were forced to adopt new codes to accommodate his designs. He is widely credited with creating the first American vanishing-edge pool (at Silvertop in Los Angeles in the late 1950s), and his use of basic materials including concrete, wood and glass has been echoed in countless designs by contemporary architects and watershapers the world over.

The material in this incredible book is a tapestry of detailed information interwoven with discussions of philosophy and is absolutely full of design concepts that will humble the best of us and inspire all of us. You might not expect to find so much relevant watershaping information in a book by an architect – but as with mining for gold, sometimes you need to look in unexpected places to find the treasure you seek. **WS**

# Our Covers Make A *Lasting Impression*



## *On The Most* **Impressive Pool Designs.**

Since we patented\* the safety pool cover back in the 1950s, Meyco has been the choice for the most complex and impressive pool designs. That standard of excellence is evident today with Meyco's unique MEYCODEX™

custom design process, which combines proprietary software with a vast databank of expertise.

For your masterpiece pool, don't settle for imitations. Trust Meyco.



1225 Walt Whitman Road, Melville, NY 11747

Toll Free: (800) 446-3926 • [www.meycoproducts.com](http://www.meycoproducts.com) • Fax: (631) 421-8621

\*Original U.S. Pat. Nos. 2,958,872 3,042,161 4,497,152 5,025,513

Circle 57 on Postage Free Card

# Jandy® Automation Innovation.



**NEW**

## Wireless AquaLink® RS

**ADVANCED** This innovative Jandy product is the first WIRELESS automation system in a portable desktop unit that provides complete, convenient control of the backyard environment.

**WIRELESS** With no in home wiring and no need to dig trenches, you will save time and money with this easy-to-install system. When you go wireless with the AquaLink RS, total control of all features will be at your customers' fingertips.

**TECHNOLOGY** The ONLY wireless Pool/Spa control system with 2.4 GHz Radio Frequency. The RF signal, which transmits the status of all backyard equipment to the wireless control panel, is strong up to 300 feet with no line of sight required.

**Jandy**  
Control Systems

*Circle 19 on Postage Free Card*

**waterpik**  
Technologies, Inc.

USA: 800.227.1442 • CANADA & INTERNATIONAL: 905.844.3400 • [www.jandy.com](http://www.jandy.com)

© 2001 Water Pik Technologies, Inc.