Inside: Brian Van Bower on Press Relations

WaterShapes

Design • Engineering • Construction

Volume 6
Number 3
March 2004
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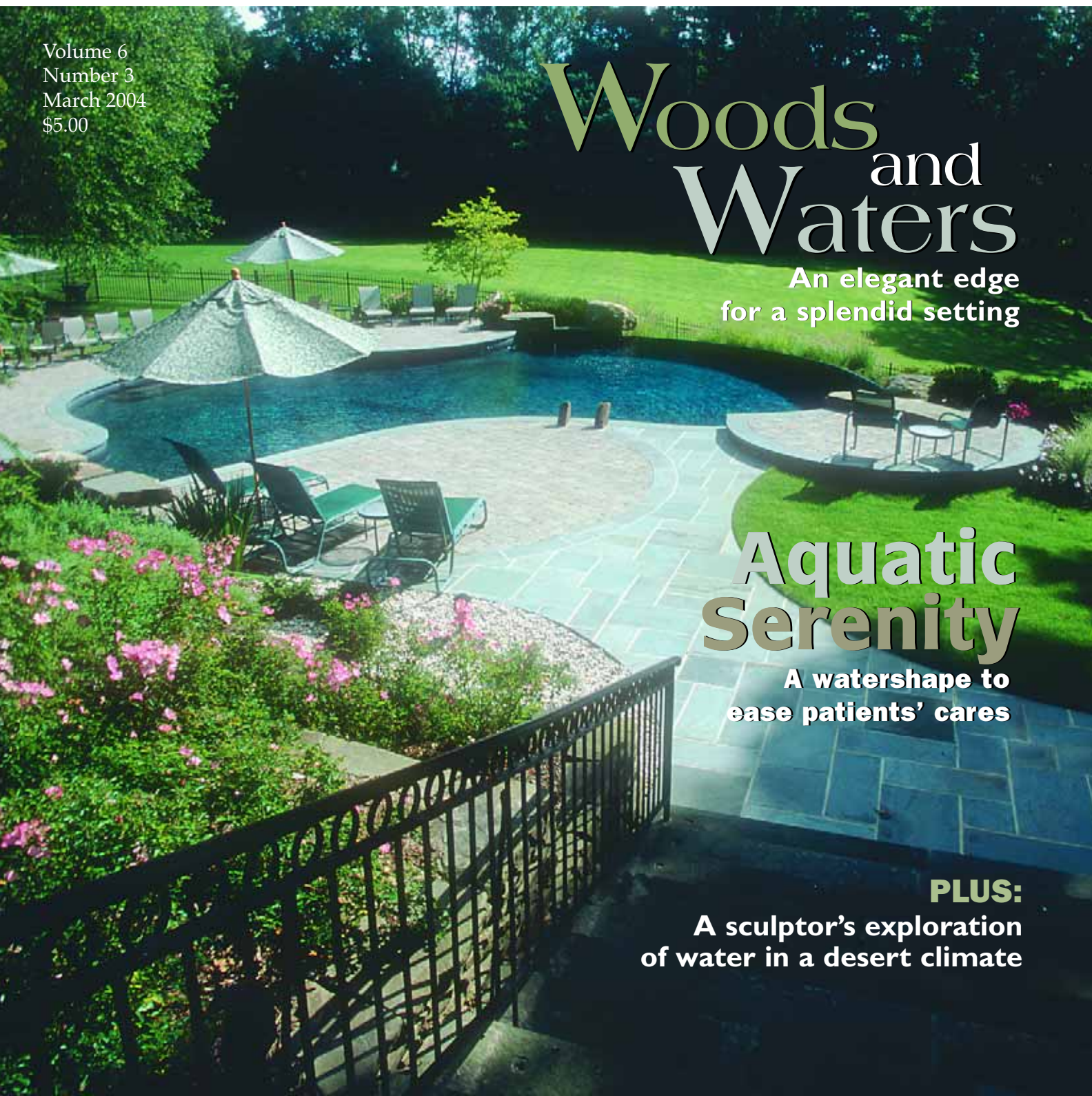

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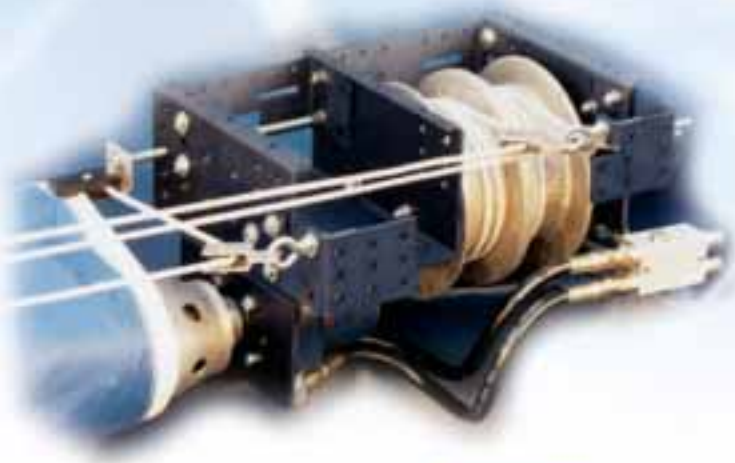

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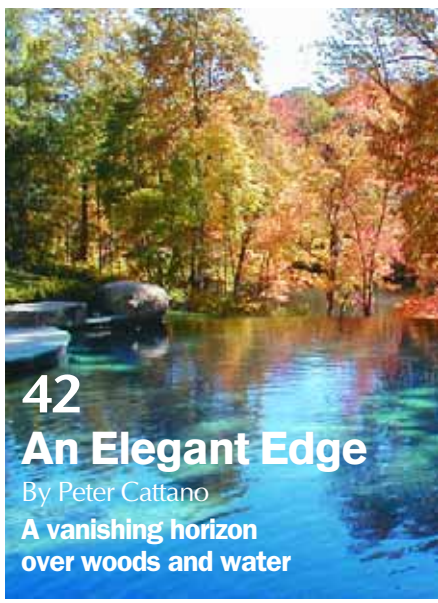

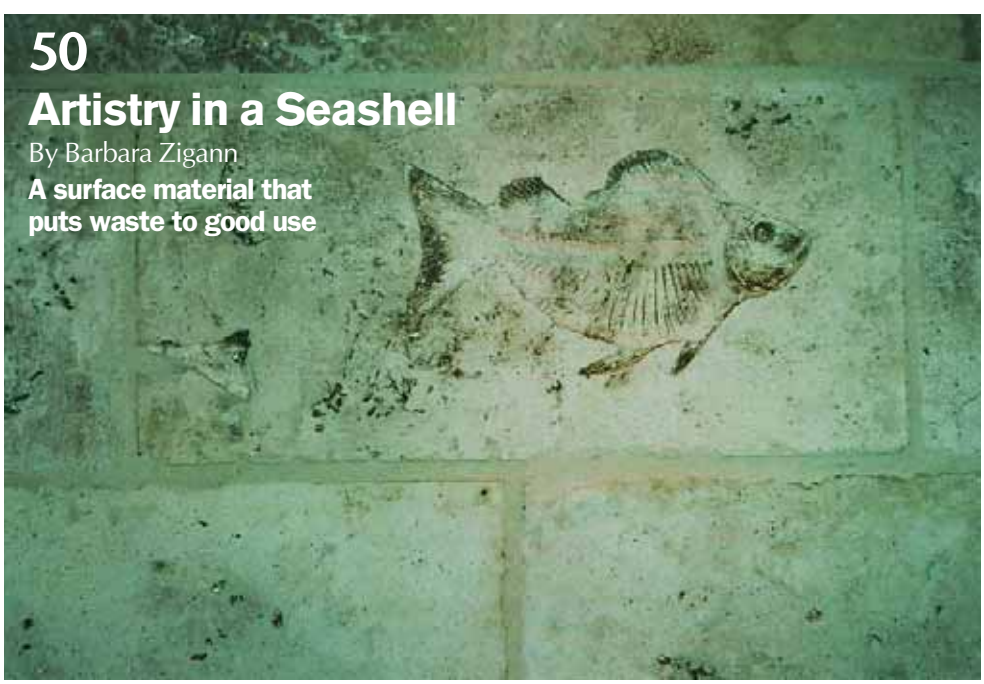

WATERSHAPES
Volume 6 • Number 3 • March 2004

columns

departments

On the cover:
Photo courtesy Paco Pools & Spas, Baldwin, N.Y.

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By Eric Herman

Mothers of Invention

One of the best things about watershaping from my point of view is that it can be so *interesting*. I'm fascinated, for example, by what happens when watershapers connect with clients, discern their wants and needs and then work within the parameters of a setting to pull great projects together.

To me, this is a big part of what the word "creativity" is all about – and we all know that creativity is fun to watch.

Through the past five years, I've observed first hand that the same sort of ingenuity and creative spark are often displayed by people and companies that design and supply products used by the various watershaping trades. With finish materials alone, for example, the recent past has seen incredible progress with tile, stone, artificial rock, exposed or polished aggregates and stamped or textured concrete (to name just a few).

In other words, it's abundantly clear that a great many extraordinarily talented people work on both sides of the watershaping business and are involved together in helping create finished products of great beauty and enduring value.

All this is by way of explaining why we occasionally run feature articles that illuminate some of the more adventurous examples we find in the realm of product development and manufacturing. This can be tricky, and we watch carefully to make certain we don't lose sight of the boundaries between editorial content and advertising messages. But the simple fact is that when we spot something unique, we see no reason at all not to invest in some ink and move it into print.

The story beginning on page 50 of this issue is a case in point: In "Artistry in a Seashell" by Barbara Zigann, you'll read about the evolution of a product called SeaStone – an innovative, unusual, planet-friendly product borne of a simple need to find a substitute for a popular natural product that is no longer readily available.

Her story is one of aligning a need, some research, a bit of cement and a mountain of waste material to create a product that mimics the colors and something of the appearance and texture of natural coral. I've been around the watershaping industry since the late 1980s, and hers is one of a handful of products I've seen that offers an elegant, simple and obvious solution to a critical need among designers – especially in Florida, where good-quality natural coral is getting harder and harder to obtain.

It's a neat story, and we think you'll enjoy it whether you come to use the product or not, basically because it says a lot about other materials and products you use and the challenges of keeping you supplied as you encounter a universe of clients with constantly shifting wants and desires.

To be sure, this is an unusual story for *WaterShapes* and it's not something you'll see in every issue or more than once or twice a year. For us, it's all about highlighting an extension of the spirit of innovation and creativity we see every day in the work of the watershapers who fill the rest of our pages: We will continue to call attention to and encourage these tendencies whenever we can.

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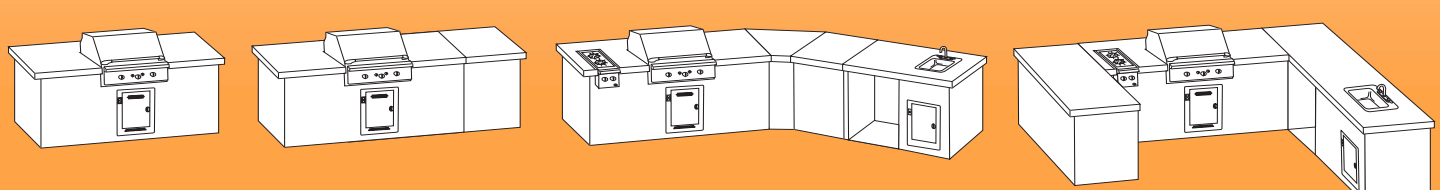

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March's Writers

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

Peter Cattano is president and owner of Paco Pools & Spas, a design, installation and service firm for residential and commercial watershapes in Baldwin, N.Y. His career in the swimming pool industry spans 50 years, beginning with work as a student for various contractors associated with his father, Peter Cattano Sr., who invented and manufactured Hi Perm swimming pool filters. Cattano opened Paco Pools & Spas in 1980 following his father's death. Active in the industry through the years, he has been president of the Long Island Chapter of the National Spa & Pool Institute and is a past president of NSPI Region I. A graduate of the Genesis 3 Design Schools, he credits Genesis 3 co-founder Skip Phillips as his mentor in the construction of vanishing-edge pools – including the one featured in his article in this issue.

Barbara Zigann is president and founder of The SeaStone Group of Ft. Lauderdale, Fla., a manufacturer of hardscape finish products. A career designer and visual artist, Zigann's award-winning artwork has been featured in several galleries and recognized by local and national publications. She applied her background to an ongoing career in swimming pool and landscape design that led in 1998 to the founding of her current company out of what she saw as a need for a greater range of design options for hard surfaces. The firm's products are now distributed worldwide.

Derk Hebdon is owner and president of Salt Lake City-based Bratt Water Features, a spin-off of Bratt, Inc., Utah's largest landscape design and construction firm. A 1991 graduate of Arizona State University, Hebdon started in the landscaping design/construction trades in 1992, when he purchased a landscape maintenance and construction firm in Tampa, Fla. In 1995, he moved into the design and construction of ponds and streams – which quickly became a primary focus for the company. He sold that business in 1999 before moving to Utah to become manager for Bratt's waterfeatures division. That business unit was spun off in April 2003 and now focuses on designing quality waterfeatures for residential and commercial clients. Hebdon is a certified landscape professional (CLP) through the Associated Landscape Contractors of America.

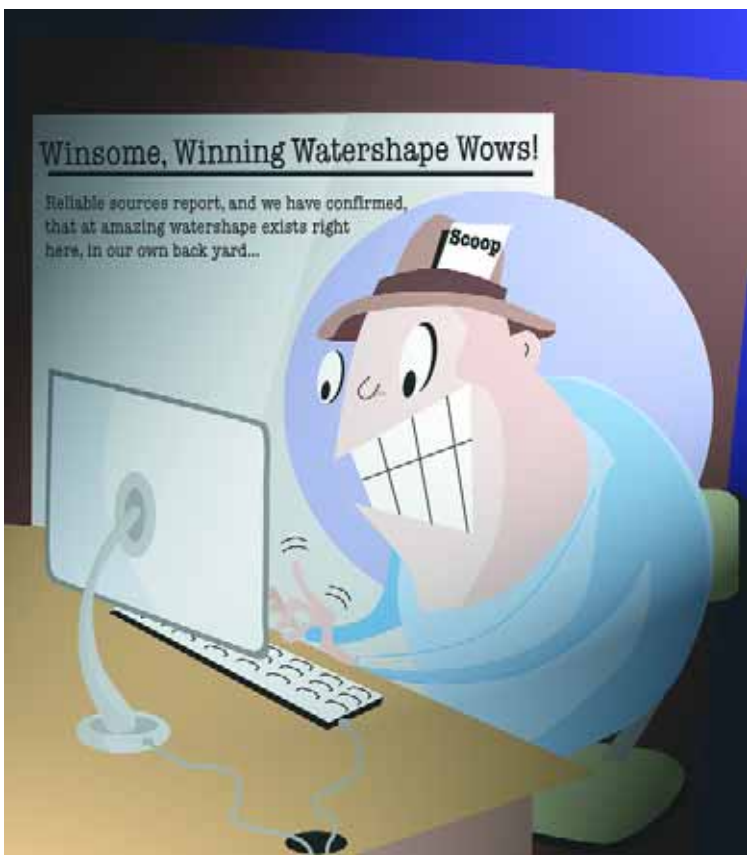
ZIGANN

HEBDON

By Brian Van Bower

Powering the Press

Securing good press is a matter of designing and/or building quality, exciting projects on the one hand and, on the other, of fairly evaluating your own work.



Many have asked me how it is that my work is published so often. I'm not talking about this column, which is about what I do and occasionally depicts my work to illustrate a point I'm making about what we do as watershapers. Rather, the question's about my projects making their ways into books and consumer magazines and other media beyond *WaterShapes*.

The short answer is that I focus on garnering this sort of exposure and have actively cultivated it through the years. As is the case with anything else you do to draw positive attention to your business, seeking to have your work published in a book or magazine takes time and effort and an understanding of what working with writers and editors is all about.

The benefits of figuring this out and gaining high-profile exposure among an interested audience can be wonderful.

making contact

Exceptional projects for outstanding clients don't fall off trees: You need to reach these people somehow and make your presence known.

There are numbers of ways of achieving this contact, and I'd argue that positive press is far and away the best vehicle for doing so. You might accomplish as much by placing ads in newspapers or magazines, but I've always felt that the person seeing the ad recognizes that you've purchased the space for self-promotion. By contrast, editorial exposure in the same newspaper or magazine is in many ways the equivalent of third-party endorsement of the work you do.

When prospective clients see your work in a consumer publication, they'll interpret the appearance as validation of your professionalism and may be more inclined to seek you out. (The same is also true for a professional audience with exposure in trade magazines, but that's not my focus here.) Consumers will presume that the editors of their favorite house-and-garden/shelter magazines or newspaper supplements have published your work because of its merit and your abilities and not necessarily because you are seeking new clients. It's a wholly different twist on how and why people contact you.

And consider what happens if you gain coverage in *multiple* publications: This results in clients' telling you that they've seen your work "all over the place" – and that they've contacted you because you seem to be "hot." It doesn't take too many of these conversations to think that time spent on the press-relations front can yield big dividends in terms of building a reputation and gathering leads.

Remember that consumer magazines are extraordinarily powerful when it comes to guiding readers' tastes and desires. Right or wrong, people make a natural assumption that, because you're in the consumer media, your work has merit and you have credibility.

But getting your work published is no slam dunk. Magazine, newspaper and book editors keep their jobs because they perform well in selecting designers and projects that appeal to their readers. This means that your work needs to fit a context and make sense for the publication.

Continued on page 12

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In other words, securing good press is a matter of designing and/or building quality, exciting projects on the one hand and, on the other, of fairly evaluating your own work, seeking evaluations from others – either fellow professionals or, in some cases, savvy clients, and studying what's already being published to see how well your work stacks up.

be honest!

However you do it, this self-assessment process needs to be fair. You have to ask yourself, "Am I good enough? Is my work worthy of being out there for other people to see? Will it stand up to the scrutiny?"

This process of setting your work down next to other projects that have found their way into print and judging your own creations with fresh and relatively objective eyes can be difficult. It takes courage and can be scary, and if you put yourself through this sort of self-evaluative exercise and can't honestly say that your work compares favorably to what you see in print, then my advice is to wait until you have better stuff to show.

Consider: If you try to promote mediocre work as having real quality, you're likely to find more frustration than success in approaching editors and should hold off until you're ready.

If you have work that fits, however, the key to making inroads with editors is being able to speak their language and make yourself heard. This entails expressing what you know about design and construction and doing so with an authority that engages the editor and positions you to talk with a writer and, eventually, with readers.

> I've learned that there's a big distinction between communicating with professionals through trade journals and with consumers through newspapers, magazines and books.

That means explaining the situation you faced for the project, your vision, and how you executed that vision – all in ways that are appropriate for the audience at hand. Having good pictures is nice, but to make things happen in print, you must be able to share meaningful and relatively detailed information. You must be an authority for anyone to bother reading what you have to say.

I've learned through the years that there's a big distinction between communicating with professionals through trade journals and with consumers through newspapers, magazines and books. In the trades, the information tends to the practical, technical and pro-

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cedural. With consumer publications, by contrast, the information tends toward the creative vision and how it is exercised. The latter sort of communication generally means throwing more of your personality into the process.

Some designers and builders aren't comfortable with "revealing" themselves in this way, but consumers tend to be more interested in making personal connections rather than professional ones.

image conscious

As I suggested above, having good images of your work is one of the keys to reaching the editors who decide whose work makes it into print.

With some of the larger publications, they'll want to send their own photographers out to get exactly the shots they want, but the fact of the matter is that you usually need to generate good photography on your own just to get a foot in the door.

Regardless of how beautiful a design and project may be, if you don't have quality images to demonstrate that splendor, it's not likely your work will be considered seriously for publication.

The first thing you have to decide here is whether you're going to hire a professional photographer or take the pictures yourself. Obviously, hiring a professional is an investment – sometimes a significant one. But unless you know your way around a camera, have a decent eye and possess some understanding of light, angles, depth of field and the characteristics of film, filters and exposures, the images you take will not be as attractive or well-composed as those taken by a pro.

Through the years, I've judged a fair number of design-awards competitions, and I've often been startled by what

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people submit. Believe me, regardless of how beautiful a design and project may be, if you don't have quality images to demonstrate that splendor, it's not likely your work will be considered seriously for publication.

Just as you need to speak a language editors appreciate, you must also communicate in visual terms they accept. This is why, personally, I call in professional photographers to record my projects to supplement my own picture taking. I have a pretty good eye and know how to use my camera, but I'm no expert.

By the same token, I've learned a lot from watching professional photographers shoot my work and how they approach the spaces I've called them in to record for me.

With watershapes, for example, the water is so compelling that it's easy (especially as a watershaper) to fall into the visual trap of just shooting the water and not the overall environment. My observation of professionals has taught me to step back and take in the whole setting.

In fact, for a great many of the shots I now take, the water is not the focal point so much as it is a complement to and component of the entire space. I also make a point of taking a greater number of photographs from a larger number of angles – not just from different vantage points around the space but also from high and low angles as well as at eye level – to capture visual relationships and more of the "feeling" of the space.

In addition to these wide shots, I've also learned a very important lesson: Professional photographers and editors love shots of details – little spaces where shadows or colors or intersections of materials are compelling or beautiful or were manifestly difficult to execute. I now take lots of these shots myself, something I rarely did before.

neat and clean

When you take your own photographs, observe a cardinal rule of good photography and "clean up" the shot.

I'm stunned when I see beauty shots of pools, spas and other watershapes in which the image is marred, often comically, by the presence of hoses, pool cleaners, garbage, dead leaves and other plant debris, children's toys, flotation devices and any number of other distractions.

Not only should your images be uncluttered by such things, but you should also think in terms of enhancing the image by *adding* small touches, such as flowers on tables, place-settings on patio furniture or extra plants in strategic places (to camouflage unsightly spots).

One of the most important tricks of the photographic trade I've learned through the years is that timing is critical. This is partly a matter of observing the space at various times during the day and taking photographs when the light's at its best, but it's also about being patient and waiting for the right weather – or maybe even the right season or time of year – to make the most of the setting's possibilities.

Continued on page 18

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Even though a professional knows how to capture quality images, he or she may not immediately "see" the project the way you'd like. I always consider photographers to be similar to anyone else who's seeing the work for the first time, and I always make a point of discussing what I'd like them to shoot. They may go beyond my requests and catch something spectacular and unanticipated, but in any event I get the shots I think I'll be needing.

Finally, there is the question of taking construction photos. For consumer magazines, "in-process" shots are seldom of interest, but trade publications (including *WaterShapes*) may well have a need for such shots. Because I work with publishers on both sides, I take pictures steadily and usually take "master shots" from one particular angle to record progress and the transformation of the space.

For the most part, however, these construction shots and photos of things like equipment sets aren't for publication. Rather, I use them as tools to document how things should be done for the benefit of subcontractors or staff charged with doing similar work on other projects – or to show prospective clients what's involved with the construction process.

working it

All of this background work and preparation is part of the process of getting your foot in the door with an editor, but there's a lot more to finding your way into print than being ready to have someone take a look. As I mentioned at the outset, working with the media takes time, and you need to be persistent and patient as you demonstrate the value of your work to editors and, as important, get to know them and what they want and develop a rapport with them.

That said, there are some strategies you can use to get your foot in the door.

- There's always the cold call with an

unsolicited submission. This involves finding out the name or names of editorial staff members and contacting them with your ideas.

If you're lucky, this may be all it takes – but be sure if you go this route that you have good images together and that you have an "angle" in mind having to do with something particularly interesting or trendy about the project. Obviously, editors and writers have their own ideas about what works for their publications, but when you come to the process with an idea in mind (and thereby do some of their work for them), you're that much ahead of the game.

In this case, it really pays to be familiar with the publication. If you see a fit in your work, play up an angle they commonly take and you're likelier to make a good impression. It doesn't hurt to have something written down to go with the images – either an article draft (if you feel confident in your writing abilities) or a promotional description of a project.

w It's also possible to use indirect approaches. Oftentimes, for example, a manufacturer will seek press coverage directly or retains a public relations firm to spread the good word. If you have a project that demonstrates a particularly exemplary or creative use of such a manufacturer's product, you can submit your images and ideas to that vendor with the suggestion that they pick up the ball and run with it.

At first, this may only result in an image or two winding up in an article or a brochure, but it's a start. And once you're in print somewhere, you can use that exposure to interest other media outlets – sort of like building a referral network.

w One of the most common paths to good press is submitting your work to local or national design-award competitions. I have my quibbles with the dignity of the most accessible of these competitions, but when it comes to seeking the attention of editors, there's little doubt that people in the media will, on occasion, look to design-award winners in winnowing through possible resources.

w Perhaps the best strategy is to be an active participant in the industry, either by working with a trade association, various charities, educational programs or a trade show. Involvement in these programs is particularly effective in reaching the trade press, but it can lead to consumer outlets because newspapers and magazines and book editors often call trade editors to get names.

This activity may not result in immedi-

digital drama

When you take pictures for publication, it's important to understand the requirements the publications have for images. Slides and prints are tried and true – and much appreciated these days by editors and art directors who've had their problems with digital images.

I've spoken with lots of editors, including *WaterShapes*' own Eric Herman, who are perturbed by the explosion in use of digital cameras: They've proved to be wonderful with respect to convenience, but not enough watershapers recognize that the images must be shot at a reasonable size and resolution to be publishable.

Eric tells me he's had way too many articles fall through when CDs have arrived with hundreds of gorgeous images that are about the size of a thumbnail when viewed at the 300 dpi standard required for printing. Not all digital cameras are made equal: If you use one, shoot at the highest possible resolution – and if your camera isn't able to shoot 5-by-7s or 8-by-10s at 300 dpi, think about getting one that can!

Whatever approach you use, remember that the proof is in the images: In contacting editors, it's always a good idea to have an assortment of photos at the ready – whether on your web site or in a portfolio of some kind – because, ultimately, it's the work that sells the story.

– B.V.B.

ate publication, but it puts you at the top of editors' minds when they're developing content for future issues or have questions about particular stories. If you make yourself a ready resource for editorial people when such questions arise, it's far likelier that they will at some point reward that involvement with exposure in their publications in one form or another.

communication keys

In my career, I've found that working with editors and writers is not difficult so long as you understand their needs. These people work at collecting and processing content for their publications, and they're always on the lookout for interesting material. When you put your work in front of them – by whatever means – you increase the chance that they'll turn to you for ideas and images.

As a rule, professionals in the communications business – magazine and newspaper editors and writers as well as the editors who put together coffee-table books – have curious minds and enjoy discussing things that interest them. Again, the ability to discuss what you do as a watershaper in direct and intelligent ways increases their comfort with you and the work you offer. It's all about simplifying the process of selecting whose work they publish, smoothing the path and making their lives a bit easier.

Just remember that editors and writers are always living and dying with their next deadline and aren't as focused on you as you might want them to be. In fact, a conversation you had weeks or months ago may have fallen off their charts, which is why I never hesitate to renew contact by phone or e-mail and let them know I'm still available, interested and amazingly interesting.

I've always enjoyed my work with the press, and there's no doubt that the exposure I've received over the years has helped to fuel my business and reputation. It's tremendously satisfying to receive feedback from people who've read articles or columns I've written or that have been written about me, and the circle of these contacts just seems to keep on growing.

One last observation: You might design and/or build the most beautiful watershapes and spaces in the world, but if no one knows about them other than your clients, you're selling yourself and your work short. Obtaining good pictures and getting to know people in the press is never a bad idea. Although you can never tell exactly how your work will be received, you'll never know until you try! 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.

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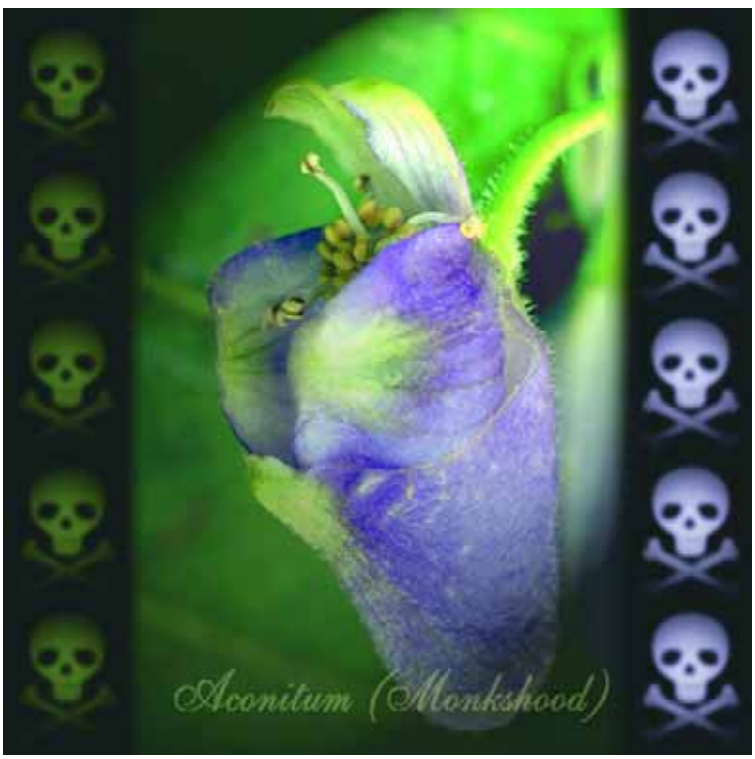
By Stephanie Rose

A New Sensitivity



I found a new "favorite" plant last summer. It's called *Dalechampia dioscoreafolia*, otherwise known as the Costa Rican Butterfly Vine. Its stunningly beautiful, exotic flowers were unlike those on any of the vines I typically see at nurseries and easily earned a place in my disorganized (and experimental) backyard garden.

Given its unique beauty, I placed it on a trellis directly outside my bedroom window so I could see it every day and observe its progress. After a few months of growth, it was still quite floppy and had not wrapped itself around places high enough on the trellis for my liking.

So one Saturday, I went out and wrestled apart many of the branches of the vine that had wrapped around themselves and set them up to reach over the trellis. After about half an hour's worth of untangling, I had a sense that the plant was quite literally moving in the right direction.

I also noticed that my arms were a bit itchy.

a little surprise

I went inside to wash up to my elbows with soap, believing it would take care of any skin irritation.

By the next morning, however, I was laughing at myself for having been so clueless. Both my arms and my midriff (the part that wasn't completely covered by my T-shirt) were covered in a rash that looked something like poison oak. Two doctor friends both looked at the rash and, after exclaiming "eeww" and making faces you don't want to see doctors make, concluded knowingly that the plant I had grappled with must have possessed some irritating properties.

We can't do enough homework and research to prevent *every* such situation from arising, but there definitely are some steps we can all take to be sure our clients are protected from hazardous plants.

I immediately went to my garden guide to look up the vine and see if I had missed something in its description. Interestingly, there was absolutely no mention of any toxicity or potential irritation. Not being satisfied, I took the further step of looking up the plant's family name: Euphorbiaceae. I'm reasonably familiar with Euphorbias, so I was a bit surprised to see that the sap is irritating or poisonous in many species – including, apparently, that of the Costa Rican Butterfly Vine.

I was quick to point out the properties of this plant to the nursery that sold it to me, suggesting that other clients might want to know that the vine has skin-irritating sap. Certainly I didn't want anyone else to go through what I was going through already.

I don't want to over-dramatize the situation. The irritation wasn't horrible, and I was able to control the itching with homeopathic products that helped me through the three weeks I had the rash with minimal discomfort – other than the occasional embarrassment of having what looked like the plague all over my arms.

Nonetheless, my brush with this plant's toxins reminded me of a lesson I ought to have learned long ago. True, we can't do enough homework and research to prevent *every* such situation from arising, but there definitely are some steps we can all take to be sure our clients are protected from hazardous plants.

For starters, it's always important to research a new plant in garden guides. In the popular *Sunset Western Garden Book*, for example, the

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legend that accompanies each plant description raises a warning for plants known to be poisonous or irritating. But no such guide is foolproof, because people react differently to different substances they encounter in their environments. That's why it's good practice to ask clients about allergies or sensitivities as you begin creating a planting plan.

common sense

I'm not suggesting that you mount a major research effort every time you select plants. But if you're in a situation where you know your client has sensitivities to pollen or a general problem with allergies, there are a couple of simple things you can do to be on the safe side.

First, don't be satisfied (as I was in the case of my vine) with information from a single source. If you've relied on a garden guide, for instance, it's a good idea to verify that information with staff at your local nursery or garden center or track information down via the Internet. And don't be entirely satisfied if you don't find a specific warning: Look up the family name of the plant and check the whole lot of them out for potential toxicity.

You're not always going to be able to prevent problems with every, single plant (again, different people are sensitive to different things), but the more research you do, the better are your chances of avoiding the nastier consequences of making a mistake.

And this isn't just about homeowners with allergies: I now make it a habit to include children and any household pets in my design and decision-making processes and use special care in steering clear of potentially toxic plants. Better to err on the side of caution when it's not your own yard!

Trouble is that irritating, toxic or potentially toxic plants are all around us. The list below is hardly exhaustive, but it is impressive both in length and in the familiarity of many of the plants – and for the fact that it's just about southern California. I can only imagine that a national guidebook on this topic would run on for many hundreds of pages!

- **Aconitum (Monkshood).** This unusual and beautiful perennial is quite poisonous if ingested. Use it only in gardens where there is absolutely no chance of children or pets chomping on its flowers or leaves.
- **Alocasia and Colocasia (Elephant's Ear/Taro).** All parts of these plants can be poisonous if ingested, and exposure to the sap can cause skin irritation. Plant this in the background, where it will not be easily brushed – or eaten by a pet.
- **Anemone.** All parts of this shade-loving (and therefore extremely useful) perennial are poisonous if ingested.
- **Brugmansia (Angel's Trumpet).** All parts are poisonous if ingested, and I've been told that its effects are hallucinogenic – something of which I have no firsthand knowledge! I use this plant frequently to exploit its large, trumpet-shaped flowers. When I do, I always inform my clients of its toxic properties as a precaution.

Continued on page 26

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◗ **Brunfelsia (Yesterday, Today and Tomorrow).** All parts of this shrub are poisonous if ingested. This is another plant I use frequently, in this case to take advantage of its fragrance and flowers and the fact that it thrives in partial shade.

◗ **Cestrum.** This shrub's fruit and sap are both poisonous if ingested – and tough to avoid because they're so widely used. Night Blooming Jasmine, for example, is part of this genus.

◗ **Daphne.** All parts of this plant are poisonous if ingested – especially the fruits. The most commonly used variety of this shrub in my area is Daphne odora, prized and widely used because of its fragrance and adaptability.

◗ **Digitalis (Foxglove).** All parts are poisonous if ingested. The powerful heart drug digitalis is derived from this plant, which says it all. I use this in many designs, and I always mention this plant's name to clients and wait for recognition. Whether they're aware of its specific properties or not, I always voice the caution.

◗ **Erythrina (Coral Tree).** The seeds of this majestic tree are poisonous if ingested. Trouble is, the deep coral-colored seed pods are so vibrant that they attract lots of attention – a particular problem with small children. When I use them, I am liberal with warnings.

◗ **Euphorbias.** As I've just discovered for myself, the sap of these plants is irritating or poisonous in many species. Unfortunately, it's a huge genus (including such well-known shrubs as Poinsettias) and is therefore hard to avoid. Special care should be used in moving or handling them.

◗ **Gelsemium sempervirens (Carolina Jessamine).** All parts of this vine, popular for its vigor and bright yellow flowers, are poisonous if ingested. This is another plant to keep away from children and pets.

◗ **Heliotropium arborescens (Heliotrope).** All parts of this perennial are poisonous if ingested. I like to use this plant, which grows to about two feet tall and works well in the middle of borders, and love its deep-purple flower clusters. So far, I haven't run into problems in using it, but I'm always watching.

◗ **Helleborus.** All parts of this shade-loving perennial will prove poisonous if ingested.

◗ **Nerium oleander (Oleander).** All parts of this widely used plant are poisonous if ingested, which seems to be something a lot of my clients know without my having to tell them. Deer are wise to its toxicity as well, making it an effective barrier plant. The one point I make with clients is not to use the wood as barbecue kindling: When oleander burns, it gives off toxic fumes.

◗ **Nicotiana.** All parts of this plant, sold in southern California as an annual, are extremely poisonous if ingested. Many people prize it for its hardiness, but I tend to avoid it because of the "extreme" caution and because there are so many other options when it comes to plants for borders.

◗ **Rhododendron (includes Azaleas).** The leaves of these plants – staples of the American garden – are toxic if ingested.

It's the hardiest shade shrub I use, and I will continue to do so because I've never heard of any incidents or problems having to do with toxicity.

◗ **Schinus molle (California Pepper).** Direct contact with the foliage can cause dermatitis, but it's not much of a threat in that respect (at least by comparison to perennials and shrubs) because the leaves are typically out of reach of the average garden visitor.

◗ **Solanum (includes Potato Vines).** Most of these plants – which in my book get too woody to be useful – are poisonous when ingested. Frankly, I wasn't aware of this toxicity until recently, and I'm happy to have yet another reason not to use them.

◗ **Spartium junceum (Spanish Broom).** All parts of this rangy shrub are poisonous if ingested. Its intensely fragrant yellow flowers make it useful (with the appropriate caveats, of course).

points of care

All of these plants (even the ones I personally don't like) are too useful in gardens to be dismissed out of hand. It's simply a matter of deciding on appropriate uses in given settings and of warning your clients about potential hazards.

In my conversations on the subject, I point out that heat may increase the irritation caused by some of these plants. I also suggest, when clients want the plants despite my warnings, that they invest in good leather or goatskin gloves and wear long sleeves and long pants while working near or with these plants.

I further advise care in using these plants as a source for cut flowers. Visitors may want to touch a beautiful arrangement without being aware of the nature of the plants in the vase. Remember: Mother Nature created these stunning flowers and unusual plants to attract – and that includes us!

With watershapes in particular, I spread caution with great care: Placing any potentially toxic plants near a pond or stream will endanger wildlife both in and around the watershape, possibly poisoning fish and any water-loving creature that might eat them. Even the water itself might become poisonous.

As is the case with a range of other design considerations, I work with my clients, listen to their requests and give them appropriate feedback, including warnings where they are warranted. As mentioned above, I prefer to be overly cautious by way of protecting myself and my business by disclosing any hazards a plant may present. WS

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

By David Tisherman

Smoothing the Way

In renovation projects, preparation of the pool's interior surface for a new finish is truly where the rubber meets the road – a key step in which what you've planned and what you actually do *must* come together.

With this installment of "Details," we're doubling back to the Los Angeles project we left behind in October as we waited for tile to arrive from Italy. If you'll recall, the pool had been built in the 1920s and graces a property with a magnificent Gatsby-era home.

As I mentioned at the outset of this interrupted sequence of columns, the homeowners have been extremely involved, always wanting to know as much as they possibly can about what's going on in their backyard. As I mentioned as well, the challenge with renovations – especially one as involved as this on so old a pool – is that you can never predict with any sense of certainty what you're going to find once the work gets started.

And the unexpected is what we found, over and over again.

stripped down

To recap quickly, I became involved with this project sometime after the owners had installed a beautiful limestone deck. That was our first problem, as the need to work around the decking increased the difficulty (and the uncertainty) of our renovation work many times over.

This led to the decision that all of our renovation work had to be achieved through sub-grade penetrations of the old shell as we added a round spa and accommodated new plumbing, lighting and control lines with three key additions: a large "step" that runs the length of the pool, a new set of shallow-end steps and a new, raised floor in the deep end of what was a *very* deep pool.

This approach emerged through careful planning, close contact with the clients and conversations with key subcontractors. Big variables remained, however, many of them having to do with the interior surface and basic structure of what was, after all, a grand septuagenarian swimming pool, and still others having to do with the soil, drainage and everything else that was going on around the pool beneath the untouchable limestone decking.

In tackling a delicate renovation project such as this one, you always inspect the site in every way you can, but there will invariably be things going on that you cannot see. For example, we knew the pool had been plastered once in its history, but we were not aware of whether or not it had been resurfaced – either how many times or in what manner, shape or form.

This is why, with every remodel I do, I explain to homeowners that without the benefit of X-ray vision, there are aspects of the work that cannot be estimated ahead of time. This is also why I give a fixed price only on parts of the project of which I'm certain. For the rest – such as anything having to do with the condition of the shell beneath the plaster – everything is set up on a time-and-materials basis. Based on what I've seen happen time and again, a "firm estimate" on a

With every remodel I do, I explain to homeowners that without the benefit of X-ray vision, there are aspects of the work that cannot be estimated ahead of time. This is why I give a fixed price only on parts of the project of which I'm certain.

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complex remodel is the easy way to ensure lawsuits, furious clients and a costly, miserable watershaping experience.

In this case, the first step in clearing away variables involved stripping the pool. I entrusted this job to my friends at Marquez Pool Plastering, who stripped the tile from the existing gutter that surrounded the pool (taking great pains not to chip the cantilevered limestone decking) and then began stripping the plaster.

As they chipped away, we discovered that the pool had indeed been resurfaced at some point with a second layer of plaster atop the original finish. They ended up stripping it twice, working until we were satisfied that every square inch of the pool's interior was hard, immovable material.

what we found

The stripping process was no big deal and went smoothly. Once it was complete, we were ready to inspect the shell – both to assess its condition and to determine whether the renovation we'd been planning was even possible.

Soon we found what could have proved a major problem: Running perpendicular to the long walls of the pool, side to side in almost a straight line and – ominously – tracing the elevation break between the shallow and deep ends, was a visible, hairline crack.

In my experience, cracks such as these can spell big trouble having to do with expansive soil, differential settlement, inadequate engineering, poor construction practice and a wide range of other possible issues. Time and time again, when you see this sort of creeping structural failure, it emerges first in the area traversing from shallow to deep.

We opened the crack with a small V-cut for a closer inspection and, sure enough, we saw that some of the steel in the shell had oxidized – although not to what seemed a serious extent. At this point, I called in my structural engineer, Mark Smith, whose name has come up in my columns on several past occasions. When it comes to offering opinions and making recommendations, he's quite conservative, highly conscientious – and invariably correct.

We spent a tremendous amount of time on site talking about what we saw, inspecting the shell over and over again and looking for clues both inside and outside the pool. Ultimately, however, the evolution of the crack remained a mystery, even to Mark's trained eye.

We sat down and chalked up a number of mitigating factors. For one, the crack only ran across the floor and not up the walls of the pool. (We knew that most pools failing from differential settlement will show damage on both the horizontal *and* vertical surfaces.) For another, steel oxidation was minimal. And in looking at the concrete itself and at what we learned in core-drilling it to accommodate the plumbing runs, we guessed that

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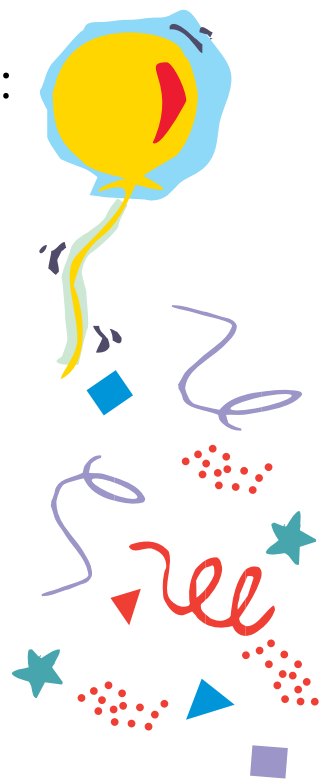

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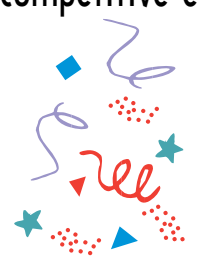


Thank You!

Special thanks to the readers who helped us by participating in the study. Your responses have enabled us to make adjustments and plans that will help the magazine better serve watershapers' information needs in the months and years to come.

WaterShapes: It's what people are reading in 2004

the poured concrete's strength was between 5,000 and 6,000 psi – amazingly strong given today's standards.

Furthermore, the pool had plenty of history. It had been poured in place, not shot; it was surrounded by reliable retaining walls; and there was the obvious fact that it had stood reliably in place for nearly eight decades, a time frame in which southern California has seen a number of major earthquakes.

After lots of discussion, we decided to move forward and cut a large V-notch into the concrete and steel and fill the void with a non-shrink grout. This was all done, start to finish, with the homeowners' understanding and approval.

locked in place

The concrete was so hard that we needed a jackhammer to open up the inch-and-a-half-deep cut along the crack, which we cleaned up with a chipping hammer. We then applied the non-shrink grout before covering the entire crack with an elastic membrane ordinarily used to waterproof roofs and walls.

We then roughed the shell in anticipation of applying three coats of Thoroseal to the entire interior surface. As is my usual practice, we alternated gray and white versions of the product, partly to make it easy to be certain we had complete coverage, but also because the two varieties have different characteristics that makes using white over gray advantageous. Finally, we floated the pool to smooth out the interior contours in anticipation of tile application.

Throughout these preparatory stages, we were mindful of the fact that we were working with old concrete and new gunite. Surface preparation in the form of sealing and floating is intended, of course, to create a uniform surface, but we had two different substrates and the possibility of relative expansion and contraction to consider.

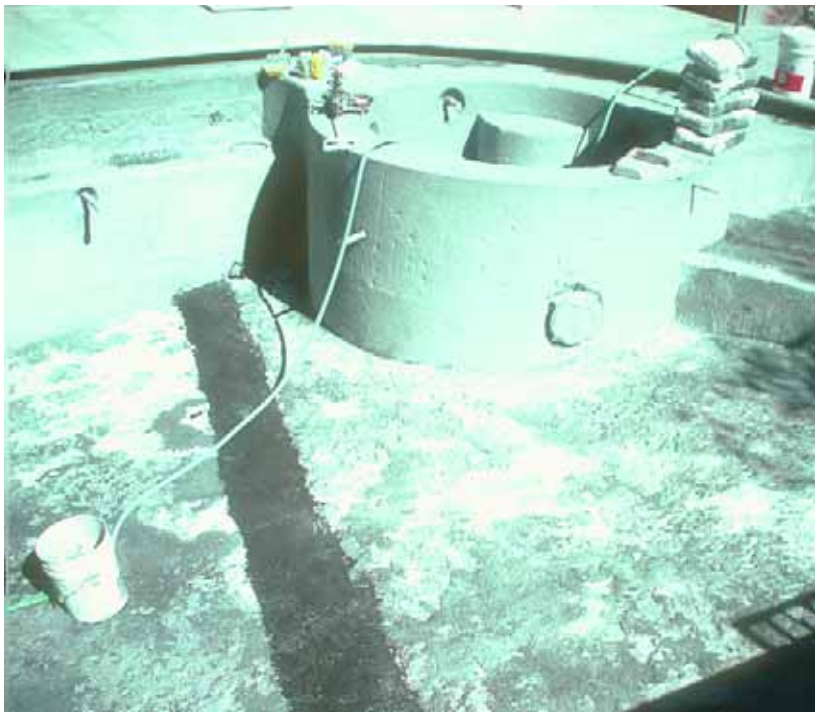
The key to handling surface issues such as these, where new gunite meets existing material, is making certain the new sections are installed using proper supporting reinforcement, have been doweled securely into the existing structure and are added with quality construction techniques. Otherwise, the result is often cracking and structural failure.

This crack appeared once the old pool had been stripped and was enough of a concern that I brought in my structural engineer to assess the situation. With his endorsement, we widened the crack in anticipation of filling it with a non-shrinking grout.

In *any* sort of construction, in fact, whether new or remodeling, I always put steel in steps and benches and consider it complete folly to do otherwise. I do so because it's what structural engineers call for; in renovations in particular, I do it because the steel, with its ability to handle tension, will give strength to the new parts of the shell and will resist damage from expansion and contraction of the concrete.

My strong advice: Unless you are qualified to do so, it's never a good idea to act as your own structural engineer. Whether you've been a watershaper for 30 days or 30 years, your role is that of a contractor or subcontractor, and your best practice is to follow details given to you by a certified expert.

Another strong suggestion – and one that should probably go without saying by now: Refuse to use rebound *anywhere* in your work. In renovations in particular, this material is compromised and should be disposed of properly.

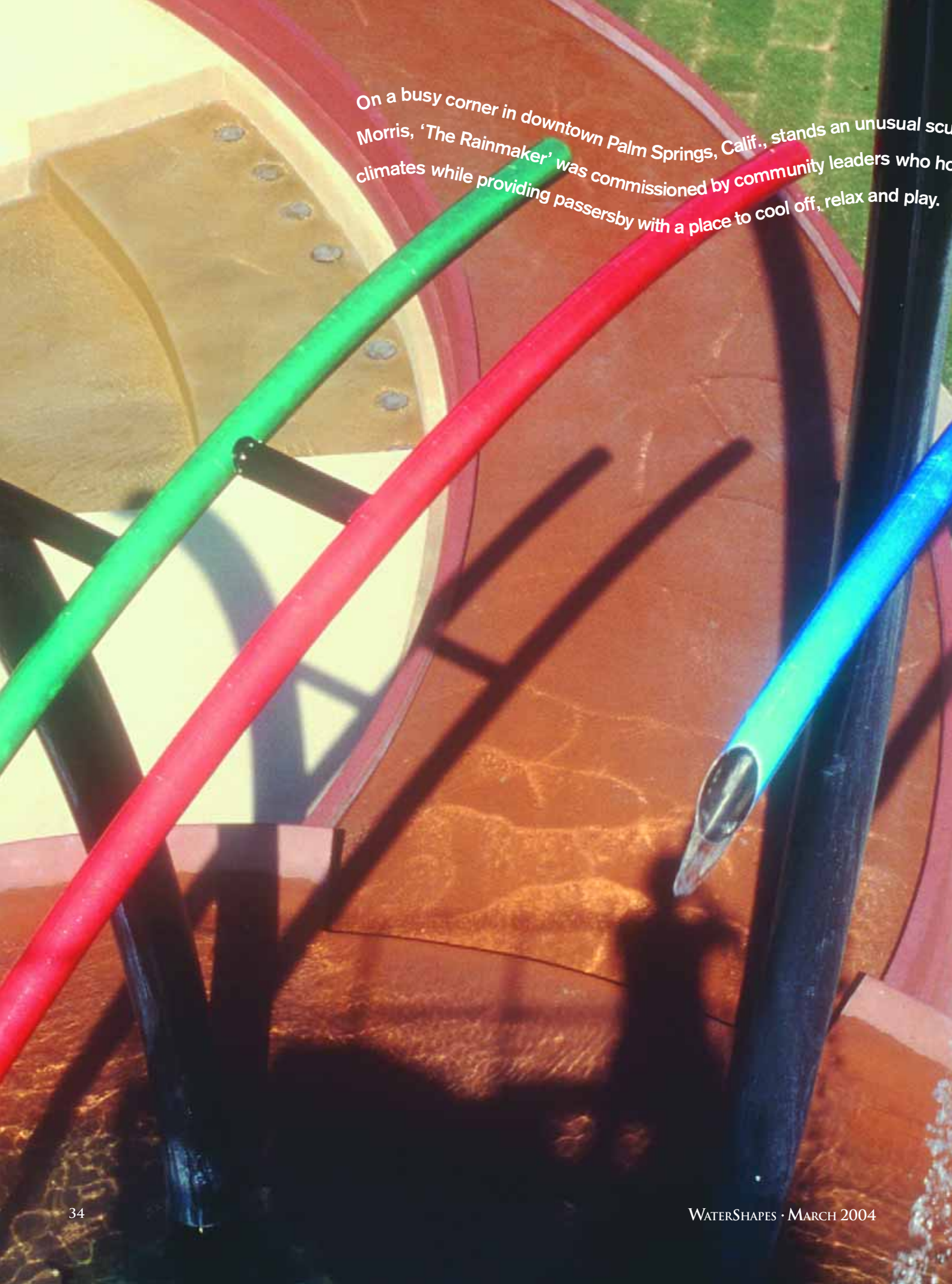


Once the crack across the floor of the old pool was filled with non-shrinking grout, we were ready to move on to waterproof the shell in preparation for finishing the interior with a beautiful imported tile.

One key detail in finishing our preparations inside this shell had to do with filling up the deep end of the pool without having to "feather" the new gunite where it met the deep end's existing slope. To avoid this potential point of failure, we set up a line and carefully chipped away the old material down two vertical inches. This means that, even at the edge, the new material will be no less than two inches thick. WS

Next: installation of the gorgeous tile in the pool and the new spa.

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



On a busy corner in downtown Palm Springs, Calif., stands an unusual scu
Morris, 'The Rainmaker' was commissioned by community leaders who ho
climates while providing passersby with a place to cool off, relax and play.

Spirited Waters

lpture that artfully moves water through the hot desert air. The work of New York sculptor David Curt pped the fountain would become a landmark celebrating the life-giving power of water in the driest of

By David Curt Morris

In 1997, the City of Palm Springs Arts Commission held a national competition for a sculpture to be placed in a prominent public space, the Frances Stevens Park. I was intrigued by the site's high visibility – and by the fact that the California city wanted a sculpture that used water in a desert setting.

Working from my studio on the East Coast, I put together an initial proposal that included a number of ideas – provocative to me, certainly, but not yet finely tuned.

It wasn't until I actually visited the site in Round Two of the selection process that I knew just how perfect a setting was being offered – a wide-open space in the center of town, ringed by tall palm trees and low-lying buildings with the stunning San Jacinto Mountains as a backdrop.

So often in public art, a work is forced to compete with surrounding structures, but in this setting, the work could find harmony with its surroundings. As a result, I made a concerted effort to refine and redefine my approach.

Sharpened Concept

Through the years, I have worked with schemes for kinetic water sculptures based loosely on the simple deer-chaser mechanism found in Japanese gardens – the *Shi-shi-o-doshi*. This is a stream-water-fed bamboo tube that continually fills with water until it is thrown out of balance. It then rapidly rotates to strike a second bamboo tube, making a hollow sound while pouring water back into the stream.

My work enlarges upon this scheme with, in this case, the sound of the water plunging into the basin replacing the clunk of the bamboo and the elegant contour of the water as it pours becoming the paramount visual effect. In essence, choreographed movement is the objective.

As it turned out, a key member of the Arts Commission had seen an earlier water sculpture of mine at the Oregon Museum of Science & Industry (OMSI) in Portland and was eager to see a variation of the same concept for Palm Springs. This was David Aiken, the commission's chairman. His support proved decisive, and I was selected to realize the proposal.

The sculpture consists of two curved, 35-foot-tall masts, each suspending a pair of wands that move in sweeping motions as they fill with water. They then pour sleek, glass-like arcs

The Rainmaker composition springs from a Japanese garden form, but it fits admirably into Native American culture and local traditions having to do with rain dances and a desire to control water amid the unforgiving desert that surrounds Palm Springs.

of water into a circular catch basin. The Rainmaker motion is smooth and carefully controlled – based upon a mechanical refinement and simplification of a complex, programmable electromechanical hydraulic/pneumatic control system I devised for the OMSI project.

The sculpture itself is all stainless steel. The two upright masts are 10 inches in diameter and coated with a black automotive epoxy. The wands are five inches in diameter and have been coated with a retro-reflective signage material for high visibility. The wands are easily seen from a great distance, especially after dark, when they shine with almost neon-like brilliance.

The basin feeds a raised aqueduct that encircles an amphitheater on its way to a wading pool for children. This wading pool sits at the entry to the courtyard of the adjacent Palm Springs Theater, where the splashing of water as it pours into the pool reverberates between the hard walls of the passage. Before it gets there, some of the slow-moving water is diverted to wet sections of the amphitheater steps, offering passersby yet another opportunity for interaction.

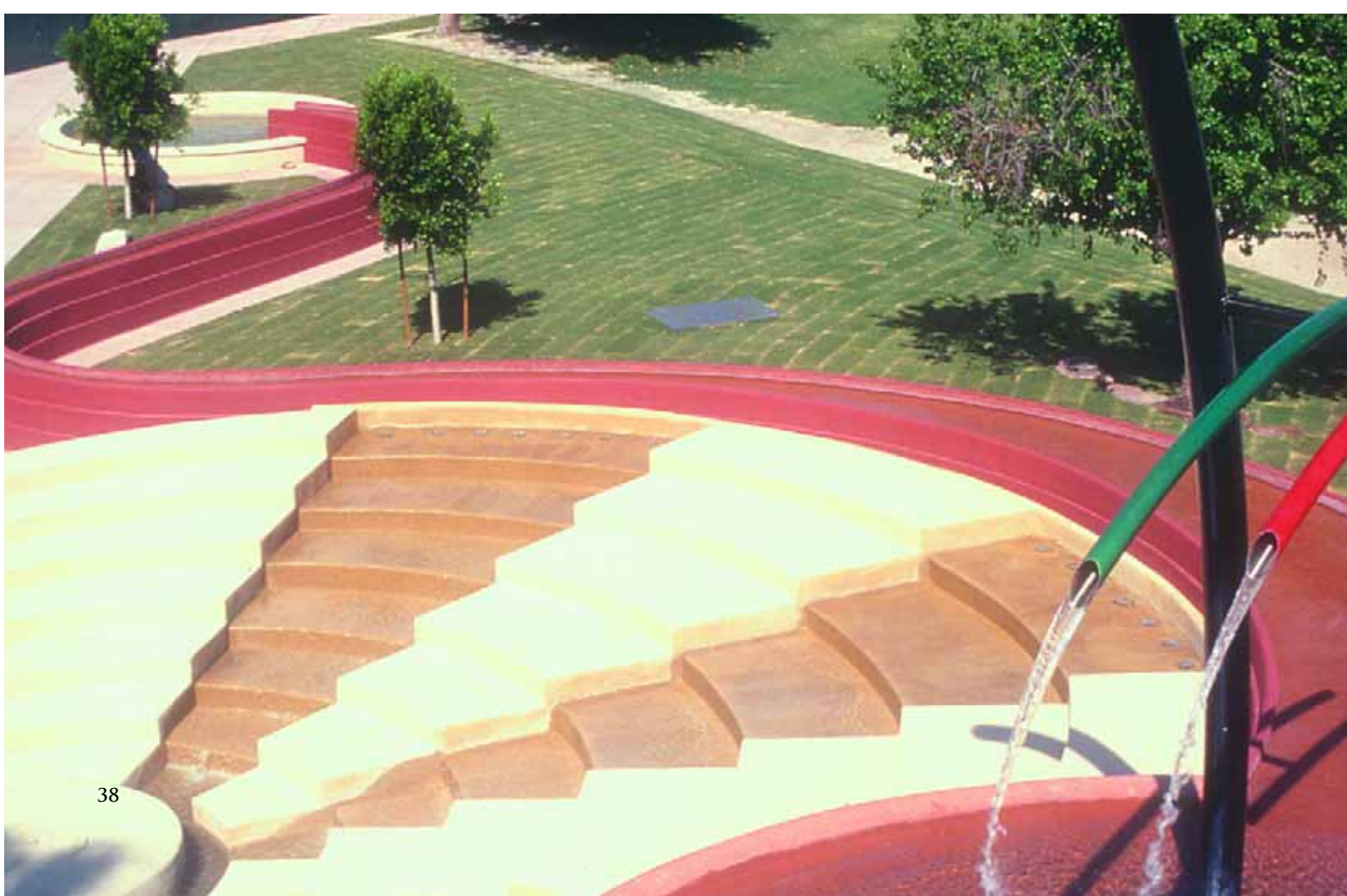
The aqueduct, the wading pool and water cascading over the steps are inviting to a public parched by the intense desert heat. But it is the wands of The Rainmaker that give the composition its visual distinction and expressive character.

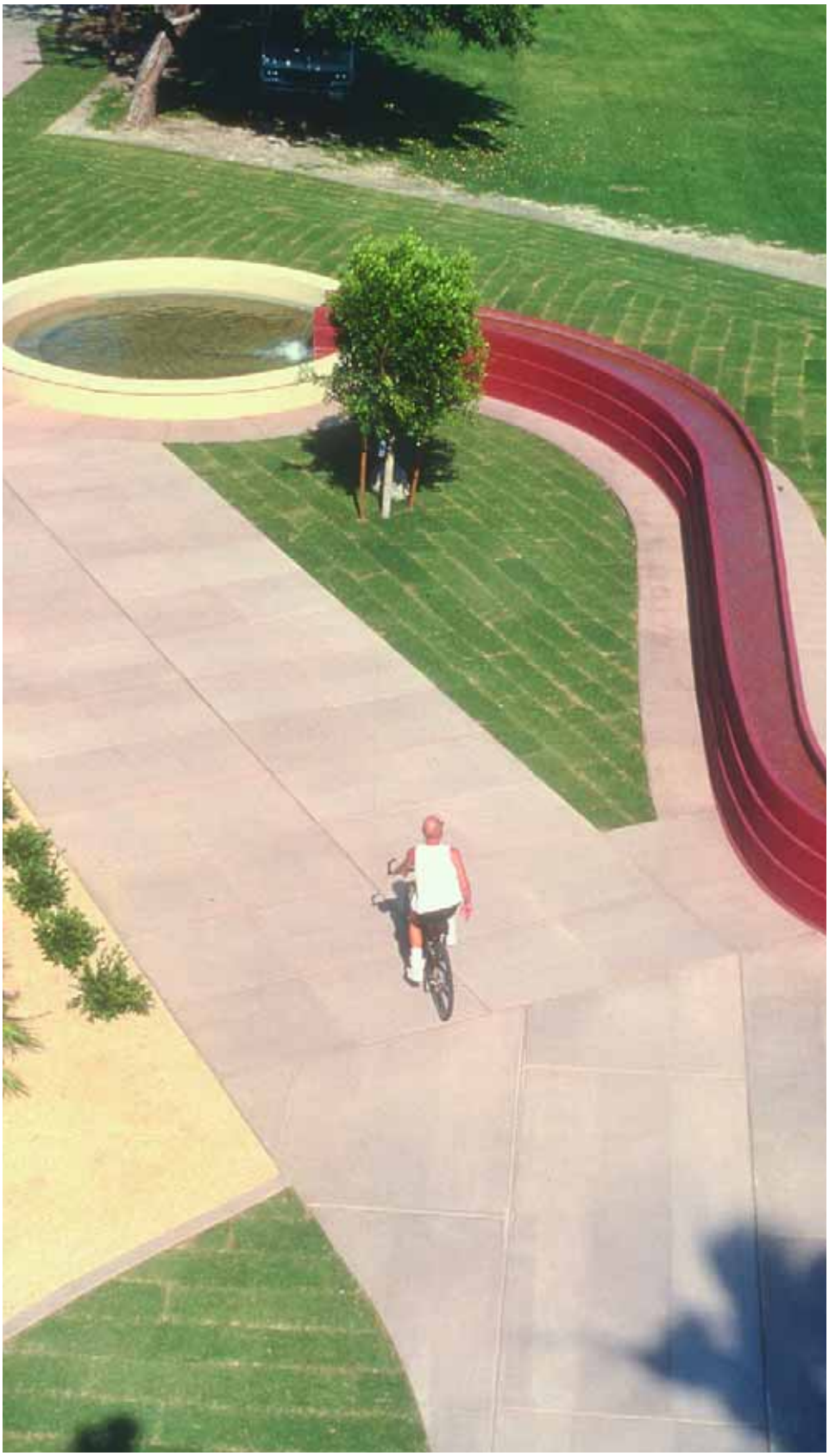
Symbolic Roots

In some southwestern Native American cultures, rain dances were held to ensure the well being of the tribe. The dances called either for water for crops or entreated the Spirits not to destroy villages with flash floods and water washes. (Water appears almost miraculously in the palm canyons of southern California's deserts, alternately and unpredictably sustaining or taking life in a brutally hostile landscape.)

Similarly, the aqueduct was inspired by the arroyos that form in heavy rainstorms, while the amphitheater is based upon Native American gathering places. As I worked, a vocabulary of expressive elements emerged and took physical form: the Rainmaker spirit, the aqueduct or raised stream, the water-wash,

The Rainmaker's wands move gracefully through the desert air as they fill with water and then spill their contents into a catch basin below. The wands are coated with a material that makes them stand out even at night, when they shine with neon-like intensity.





Fed by the wands through the catch basin, the raised aquedect mimics the form of local arroyos as it cuts a sinuous path between the Rainmaker and the splash pool at stream's end, giving passersby ample opportunity to interact with the water and cool themselves as they move either toward or away from the wands.

the amphitheater and, finally, the collection pool.

Other qualities of the desert landscape are echoed in the colors and forms of the work, including the tall palms that rise up against the vast backdrop of the San Jacinto Mountains, the deep blue of the sky, the brilliant greens of the irrigated grasses, the deep red of the ubiquitous terracotta tiles and the burnt umber of local rock formations.

As this abstract program developed, I could not lose track of the need to treat the design as a destination for community recreation, relaxation and comfort as well as a work of art. After all, the space in which The Rainmaker gyrates is in the central public park of the city. From my perspective, however, the task of making this corner of the park inviting to passersby was simplified by the opportunities that arise whenever water is part of the picture.

The aqueduct, for example, not only cradles the amphitheater, but it also gives visitors a chance to walk through or even sit in the water as it flows gently over the wet areas of the steps. Throughout much of the year, it's so incredibly hot that passersby take the opportunity to cool themselves by sitting in the water – and then are dry again within minutes of leaving the amphitheater. A heat-resisting deck coating was employed that permits visitors to walk the dry areas of the amphitheater in their bare feet on even the hottest desert days.

All of these practical choices were made in close collaboration with the city, principally in the person of Diane Morgan, director of the Palm Springs arts program, who was so deeply committed to the project's success that it allowed us to navigate through some of the toughest problems I've ever encountered, including poor performance of a prime contractor that led to ridiculous delays and increasing restiveness on the part of a rightfully frustrated city council. (For details on how community support saved the day, see the sidebar on page 40.)

Making Headway

Key to turning things around was the participation of concrete specialist Rich

Fellows in Art

The decision to sponsor The Rainmaker was controversial, and I give particular credit to David Aiken, head of the City of Palm Springs Art Commission, who resisted calls for polite, traditional designs and throughout the process fought for my proposal.

Without Aiken's support and that of arts program director Diane Morgan and director of downtown development Jerry Ogburn during what became an arduous process, The Rainmaker would never have made it to opening day. Their vindication comes in the fact that the composition is now one of the most popular attractions on the city's main street, Palm Canyon Drive.

When things became tough in the construction phase, I was buoyed by the support not only of the commission but also of then-Mayor Will Kleindeinst, City Manager David Ready and Mayor-to-be Ron Oden. I owe special thanks as well to Symphony Conductor Maurice Engleman, who wrote a very timely and moving letter that caught the attention of the City Council, and finally, to City Attorney David Aleshire, who argued persuasively to the Council to get barriers lifted and the water flowing.

Kathleen and Craig Blau – owners of The Chase Hotel, which served as my headquarters for the duration of the project – deserve special mention: They were so intent on providing ever-deepening levels of support and comfort that they pulled me from their wonderful hotel and set me up in their own guesthouse. Craig even volunteered on the day of the sculpture installation to do essential and critical work.

– D.C.M.

Parzinsky, who came on the scene at a critical point.

He believed in what we were doing and wanted to see things through to completion. What followed was a tremendous amount of jackhammering and refitting of the work that had already been done, but badly. Without Parzinsky's efforts, the project would never have been realized. Considering all the difficulties, the final product is of a higher quality than we had any right to anticipate.

After working long hours in terrible heat, Rich, his crew and I would gather in the bar across the street, wait for relaxation to settle in and then compliment one another on the high level of our collective workmanship – a far cry from the initial struggles on site and for me a level of camaraderie that made this one of the most rewarding work experiences I've ever had.

Before long, it was opening day. The city staged a celebration, putting up big tents to shield guests from the hot sun and offering a day of speeches, refreshments and music leading up to the ceremonial throwing of the switch that brought the sculpture to life.

From Studio to Site

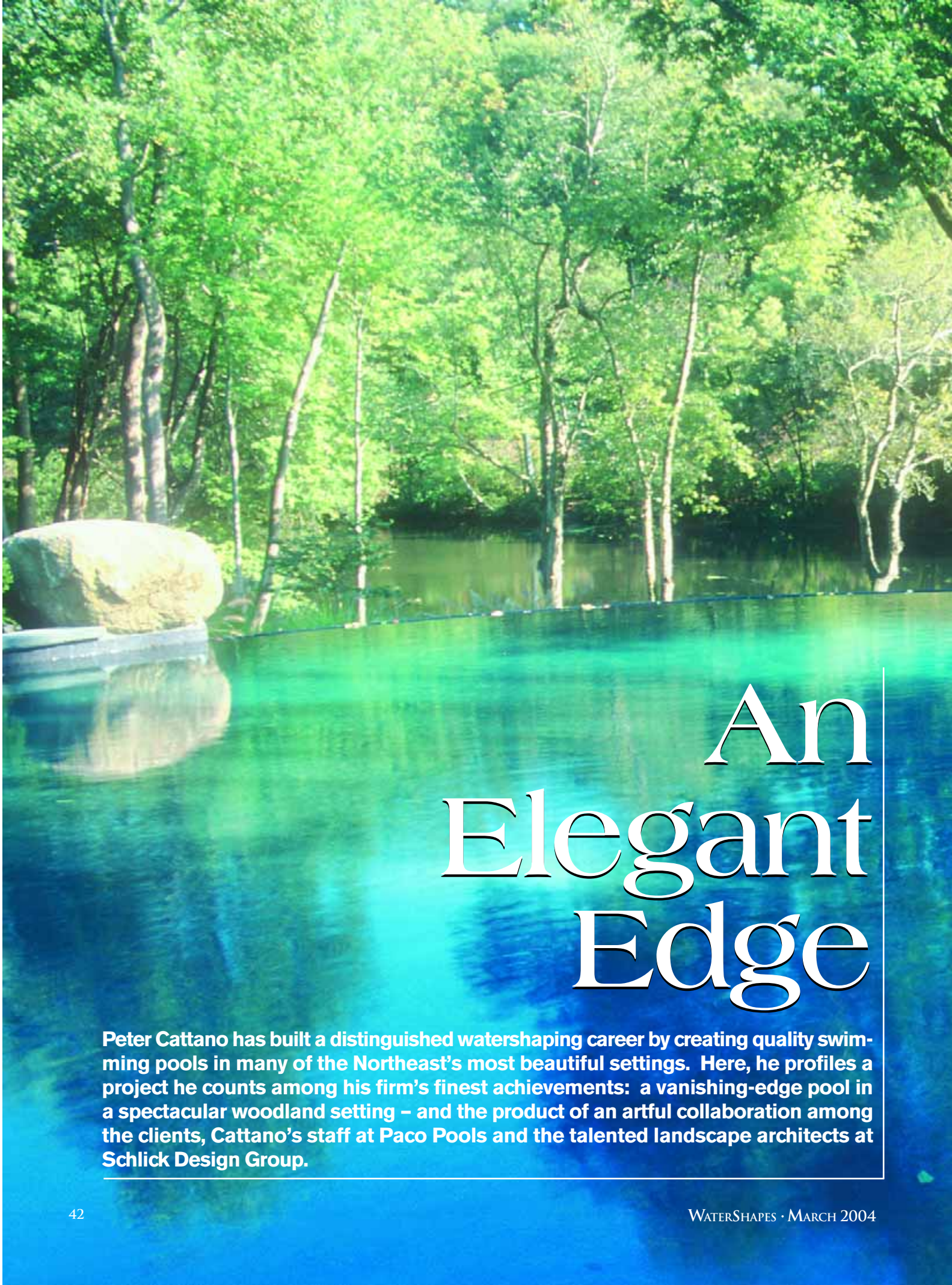
As is always the case with my projects, design and engineering for The Rainmaker sculpture was carried out in my New York studio. Extensive computer modeling preceded actual tests with working models, then working drawings were prepared in collaboration with R&W Engineering of Portland, Ore., with metal fabrication taking place in the superb art shop of Milgo-Bufkin in Brooklyn, N.Y.

To avoid on-site problems, all pumping, filtration, regulation and support-service equipment was factory-installed in a pre-fabricated vault and shipped whole from Oregon to Palm Springs.

This work was executed brilliantly by Jack and Greg Andersen of Andersen-Pacific, also in Portland. The installation resembled a NASA module and worked like a charm, with a five-horsepower Paco pump for the aqueduct and washes, a three-horsepower Paco pump for the wands and a pair of Pentair pumps and filters for the rest of the system.

– D.C.M.

The amphitheater's wetted steps offer another chance for interaction with the Rainmaker's bounty, offering park users not only the opportunity to sit next to or even in the water, but also to rest and relax as they watch the sculpture wands move elegantly through space.



An Elegant Edge

Peter Cattano has built a distinguished watershaping career by creating quality swimming pools in many of the Northeast's most beautiful settings. Here, he profiles a project he counts among his firm's finest achievements: a vanishing-edge pool in a spectacular woodland setting – and the product of an artful collaboration among the clients, Cattano's staff at Paco Pools and the talented landscape architects at Schlick Design Group.

By Peter Cattano

I've always believed that great projects require three key elements: a beautiful design, knowledgeable and careful construction, and a good client. For the project pictured here, all three of those pieces were in place, and the result has become a significant point of pride for our firm.

The site consists of three sloping acres in the upscale community of Mill Neck on the north shore of Long Island, N.Y. The home sits at the highest elevation of the property, which reaches down to a large, brackish pond fed by the waters of nearby Mill Neck Bay.

The swimming pool and surrounding hardscape and landscape were incorporated into a complete renovation of the existing 85-year-old, two-story brick home, which had formerly been painted white. The brick has been sandblasted to reveal the rich colors of the original façade and match the veneering of a building extension. The result is the classic look of a French estate home – all very tasteful and elegant.

Out Back

The property already contained a gunite pool with an elevated, attached spa, but the design and orientation of the watershapes did nothing to draw the eye toward either the magnificent stand of hardwood trees that surround the space or the pond below. The clients rightly felt it all lacked personality and the impact of pools they had seen in various books and magazines.

In fact, they'd done a good bit of homework about today's pools and spas and had decided that what they really wanted was a vanishing-edge pool. I couldn't have agreed more: It seemed like the definitive setting for just such a detail.

The pool sits in a terraced space downslope from the home and upslope from the pond and a heavily wooded area – from my perspective, the perfect spot for a dramatic vanishing edge detail that would take advantage of both water-on-water and water-on-greenery views.

Better yet, although these were clients with refined tastes and ready opinions, they willingly accepted the idea of working with experienced professionals to bring together what they saw as a key investment in their property and lifestyle. Once their general ideas had coalesced, they left it to Gary Blum of the Schlick Design Group (Green Lawn, N.Y.) to design and manage the overall project and to us at Paco Pools & Spas (Baldwin, N.Y.) to take care of the engineering and construction of the vanishing edge pool and its unique hydraulic systems.

I'm a firm believer in collaborations that involve people and organizations with complementary skills and couldn't have asked for more in this case. I've worked with the staff at Schlick Design Group on a variety of projects through the past decade, and we've formed an association in which ideas flow freely, things happen intuitively and there's a genuine understanding on both sides of the value of a working relationship based on trust, experience and familiarity with the ways we each work.

Here, Blum defined the areas to be landscaped and the shape of the pool, then left the details of the working design,

The raised spa is sheltered by a recess in the fieldstone wall, offering bathers a grand view out over the vanishing edge to the trees and pond beyond. The spillway falls into an area contained by the steppingstones, reducing turbulence that might hamper the edge effect.

Materials were chosen with care and an eye to colors that fit within the rustic setting, including the dark-gray plaster inside the pool, the deep-blue waterline tile, the bluestone coping and the tumbled light-gray pavers of the deck.

For all the simplicity of the design and the lack of dramatic waterfeatures, the hydraulics behind this watershape required a complicated plumbing system that led to a downslope equipment pad. In all, 18 major lines run between the pad and the vessel.

engineering and watershape construction to us. His team brought in and managed all of the subcontractors and took care of the scheduling for all work being done outside the house and the guesthouse adjacent to the pool during a six-month renovation process.

Through it all, the clients offered their input and knew more or less exactly what they wanted – but they were also willing to let the project team take the ball and run with it.

Making Decisions

When I first visited the site, initial discussions focused on positioning the pool to maximize the visual significance of the vanishing-edge effect. The plan was the result of rounds of discussions, detailed measurements, assessment of elevations and careful consideration of all relevant lines of sight.

As designed, the free-form pool has a surface area of 1,300 square feet that flows to a sweeping, 33-1/2-foot vanishing edge. The water ranges in depth from three to eight feet. In the shallow end is a dam wall that encompasses a raised spa. The raised wall is finished with stacked Pennsylvania fieldstone to match surrounding stonework.

The spa itself features eight bronze therapy jets and a large weir finished with fieldstone. Directly in front of the spa are three large steppingstones supported at water level by small piers. The steppingstones allow visitors to move from the main stairs leading from the house to a cabana and deck area on the opposite side of the pool.

There are no other water effects beyond the overflow from the spa and the vanishing edge. The overall design is one of simple elegance, rather than layers of visual and aural features. This was a perfect match for the clients' desire for straightforward and simple aesthetics that placed maximum focus on the watershape's rustic surroundings.

As we all agreed, there's a view of the pond over the vanishing edge from certain angles, but for the most part, the water flows toward a backdrop of trees. This is a big point missing from the common perception of vanishing edges: There's no rule that says you must have water-on-water views to make these details work visually. In fact, some of the most effective vanishing edges I've ever seen disappear into fields of foliage, as in this case.

The colors we chose and the materials we used all fit within the rustic setting, from the New York bluestone coping and the pool's dark-gray plaster interior to the deep-blue ceramic tile on the main pool's waterline and on both long walls of the catch basin.

The decking in the large areas around the watershape had to be cool underfoot, which ruled out more bluestone, so Blum opted for a distressed, tumbled paver in a neutral, light-gray tone. As it turns out, the bluestone coping set in the field of gray pavers sets up a contrast that highlights the sweeping shape of the pool and

frames the vivid reflections of greenery surrounding the pool. We've all been delighted to see how the visual character of the pool changes as lighting conditions change through the days and seasons.

Focusing on the Visuals

As mentioned above, one of the things we looked at very carefully in positioning the pool and establishing its vanishing edge were lines of sight. We used the perspective of a six-footer standing in the shallow end as the prime observation point, working from there in setting up an edge that angled away from the pool and dropped to a catch basin three-and- a-half feet below the edge – not visible from any point on the house side of the pool.

There's no formal path that leads to the downslope side of the pool, but there's a grassy area that offers access to a bench next to the catch basin. For the most part, however, the elevation drops quite rapidly beyond the pool and much of the slope is planted in a groundcover that doesn't particularly encourage visitors to pass that way.

What does encourage people to venture near the edge wall is the fact that the pool is eight feet deep on that side. The deck is a bit elevated in that area, and there's a large, flat diving rock. Apparently a favorite maneuver is to dive in, swim up to the edge and then hang over the weir to take in the scenery beyond.

A huge, flowering dogwood tree stands close to the spa and is quite amazing when it blooms each spring. The gorgeous white blossoms are spectacular: Even though they do find their way into the pool, everyone agrees that the sight of the tree reflecting in the water is worth the bother of cleaning the pool more often than usual.

All of these visuals are supported by quality in hydraulic design – a hallmark of what we do as watershapers. On this project, for example, we used three- and four-inch plumbing to ensure low pipeline velocities and minimal head losses. There are also three skimmers in the pool (a gesture to the dogwood as well as a means of reducing surface turbulence) and a twelve-by-twelve-inch commercial box drain on the floor of the pool.

Filtration is handled by a 36-inch high-rate sand filter from Pentair Pool Products

A Crushed Foundation

As mentioned in the accompanying text, the site had an old pool that had been demolished, removed and backfilled before we arrived.

Soils testing of the backfilled area revealed that the fill material was not sufficiently consolidated and therefore would not hold the new structure without future settlement. Rather than incur the expense of setting up concrete pilings, we dug out the newly defined pool area down to an undisturbed, reliable ground.

With the hole dug, the excavation contractor hauled in more than 250 tons of 3/4-inch chopped, angular bluestone and installed the material in 10-inch lifts, thereby creating a firm foundation for the new pool shell at a fraction of the cost of pilings, grade beams and associated structural engineering.

The pool is located at the base of a large slope, which raised concerns about ground water from higher elevations moving under the shell and exerting hydrostatic pressure and uplifting force. So we also excavated a five-and-a-half-cubic-yard pit at the deepest portion of the pool, filling it with crushed stone. Any water moving down the hill will now be absorbed by the underlying strata.

– P.C.

(Sanford, N.C.) and a two-horsepower pump from Hayward Pool Products (Elizabeth, N.J.). The spa has two pumps to run its array of jets, and the vanishing edge uses two pumps and two cartridge filters to polish the water flowing through the catch basin.

We went with two pumps for the vanishing edge effect to give it two personalities: With one pump on, the edge is subtly wetted, with only a small flow into the catch basin; with both pumps on, the water breaks completely away from the edge to create a waterfall effect.

Added Benefits

That last point is, I think, an important one, because too many watershapers lose track of the importance of auditory effects in watershape design.

In this case, the waterfall effect creates the sound of a curtain of gentle raindrops, and the clients have told us repeatedly how much they enjoy walking alongside the pool just to listen to the soothing sound of the water flowing into the catch basin.

The sound is all the more unexpected because it accompanies a highly reflective surface completely unaffected by turbulence. In addition to the multiple skimmers, we set the pool's returns low in the wall and covered them with anti-vortex covers of the type used with main drains. In fact, the only agitation comes when the spa overflows – a phenomenon minimized by narrowing the pool in front of the spa to neutralize surface motion.

All of these systems and variable operating configurations are managed by a control system made by Jandy (Petaluma, Calif.), and a saltwater chlorine generator by AutoPilot (Fort Lauderdale, Fla.) is used for sanitization. Lighting is provided by three 500-watt fixtures in the pool and one 250-watt unit in the spa – all of them on rheostats to enable the homeowners to control the mood.

We spent the better part of a week trenching and laying down 18 lines to a flooded-suction equipment pad. To prevent collateral damage from check-valve failure, we plumbed Hartford loops on the return lines from the catch-pool pumps. This will keep gravity from pushing the contents of the main pool into the catch pool.

As a reward to the adventurous, the downslope side of the vanishing-edge wall offers a sublime aural experience to go with the stunning visuals, but the focus of the design is the upslope views of the water disappearing into greenery or into the pond beyond.

The pool itself is a picture of solid strength. The concrete was applied to a framework of #4 rebar – on 12-inch centers in the floors and six-inch centers on the walls – with a double curtain of #4 bars on five-inch centers in the vanishing-edge wall. The two decorative boulders flanking the edge are supported below with extra steel that handles the surcharge.

This was all hard, detailed work, but there was never a thought given to cutting a corner or compromising in any way on quality. Our collaboration with the Schlick Design Group worked beautifully, and with their precise project management, the entire process went smoothly from end to end – a true delight in a universe in which that's not always the case.

As we look back on this project, we see that everything fell into place – from the right clients to the right designers to the right contractors turning the right vision into reality. The result is a setting that wins praise for its simple elegance and for the ease with which it fits into its verdant surroundings.

Even when you strive to build quality watershapes each and every time, there aren't all too many that come together quite so neatly as this one.

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Artistry in a Seashell

Always on the lookout for deluxe natural and man-made finish materials but frequently frustrated by the hunt, designer Barbara Zigann took matters into her own hands a few years back. After extensive research and experimentation, she brought an unusual and flexible blend of seashells, fossils, glass and cement to market – an environmentally friendly product that brings something unique to any watershape or architectural setting.

By Barbara Zigann

As a designer, I've always sought out exceptional finish materials to use in my projects.

My background is in fine arts, and I've worked in the design/build business for years, creating high-end exterior and interior spaces and taking pride in finding surfacing products that excite my clients and beautify the work. Operating in south Florida, however, I kept running into so many limitations on what was available that it had the effect of limiting my creativity. Natural stone can be hard to come by in adequate supply where I live, for instance, and as much as I like tile, it doesn't fill the bill for every job. Anything's available at a price, of course, but even affluent clients often will flinch when they see what's involved.

For a time, I focused on local materials and used natural coral, putting its rich assortment of soft colors and textures to use – perfect for swimming pool environments. Unfortunately, the coral beds along the Florida coast have been badly depleted, and restrictions placed on coral mining in 1995 have dried up supplies to the point that what we find today is mostly rubble in an unattractive brown color.

Many of us tried Philippine limestone and Mexican shell stone – interesting, but where flat material was widely available, trim pieces were not. I tried cast stone and some of the paver and stamped-concrete products, but the results were inconsistent and seldom looked natural. Finally, I became so frustrated that I decided to develop a new product that would have the beauty and richness of a natural material with the reliability, consistency and convenience of a manufactured product.

The Answer Underfoot

As I looked around and considered possibilities, I eventually began examining the geological composition of Florida itself, which rests largely on a bed of seashells. While it supports our every footstep, this material generally sees the light of day only when it comes up as a waste product in mining for sand.

In fact, just about the only use for the material has been as a drainage enhancer – in much the way pea gravel is used in other places. What I discovered is that most of this shell material is, in fact, treated as waste – and was therefore available in huge quantities for little more than the cost of transporting it.

It dawned on me that this "garbage" could be turned into a resource by someone with the right idea about what to do with it.

Through my research, I learned a good bit about mining, how building materials are created and how those processes affect the planet. I read and heard about environmental depletion, how marble quarrying irreparably scars the landscape and more – and began to think more and more in terms of developing a product that didn't exact such devastating costs. And I couldn't get the piles of discarded seashells out of my mind.

I soon thought about combining the shell material with its cousin, Portland cement, which, like seashells, predominately consists of calcium carbonate. When we started experimenting with the two materials, we found almost instantly that they worked well together: The seashells have an extremely porous structure that absorbs the cement paste, causing the two components to bond well in an extremely durable cement/aggregate matrix.

So we continued the research, experimenting with concrete admixtures to come up with a mix that yielded good-looking, durable results. After two years and a great deal of trial and error, we developed a mixing schedule that now serves as the basis for our SeaStone line of products.

Playing with the Palette

In playing with the product through the development process, we learned that we could achieve different looks by changing the degrees to which the shells were revealed in the mix – everything from smooth, cream-coat finishes to highly textured, exposed-aggregate-type finishes. We found that color could also be adjusted by using either gray or white cement and other color additives.

From there, we developed the concept of using fossilized plants and fish to enhance the natural appearance of the stone, and, ultimately, we began playing with broken glass, another abundant waste product. Before long, we saw that we had a fairly complete product line.

At the same time, we were beginning to think in terms of applications. From the start, we saw that the product could be used in interior and exterior designs. Our first thoughts were about using the product on flat surfaces in dry, above-the-waterline situations, so we created molds for coping, end pieces and trim pieces to go along with panels and large, flat tiles. At about this time, it occurred to us that the product was water resistant and could be used in submerged applications as well.

Next we focused on equipment and the manufacturing processes needed to produce the material in large quantities and in a variety of forms we'd projected. As luck would have it, this part of the developmental plan was fairly straightforward and involved a number of tried-and-true technologies.

Basically, the shells, cement, water and admixtures are moved into a big mixer and processed before being poured into a large vat in which we create a "batter" with various colorants and added aggregates, such as fossils or glass. The material is then conveyed to pressure molds and left to cure. That's all there is to it – except for the pieces in which we expose the seashells, in which case we add a step where the surface is ground using diamond cutting tools.

Of course, the above description oversimplifies the process, and there are many adjustments we make that enable us to customize batches and tailor appearances to client needs. But it really is a fairly simple (and familiar) process.

In appearance, the finished products all have soft, natural colors – much like the familiar palette of natural coral. The basic color is buff, but with all of the delicate creams, taupes, grays and pinks found in seashells and coral.

With the glass added, the product encompasses a wide range of stronger and darker colors as well. Even so, we've made no attempt to compete with more distinctly architectural materials such as glass tile or other boldly colored finishes.

In No Hurry

We entered the market in 1998 and have always taken a conservative path. We've wanted to make certain we would grow at the right rate and could always meet demand while offering complete technical support. We lived for feedback as well, and we've always taken special care in working with contractors who were trying the product for the first time.

At first, we limited our distribution to Florida, targeting the large number of designers in the Sunshine State who were looking for an alternative to coral. We also pursued ASTM registration of our product's quality and consistency – something unavailable with truly natural materials

such as coral, where experience taught us that compensating for flawed pieces often meant over-ordering by up to 30%.

We also continued to look at applications and began to perceive the product's natural connection to water. Indeed, we found that SeaStone works equally well in dry and wet applications, even in details such as beach entries, where the presence of shells and fossilized marine life creates direct visual ties to familiar aquatic environments.

We've continued to refine installation techniques as well. Given that the product is made in panels or large tiles (either 3/4 or 1-1/2 inches thick in standard sizes), grout is involved, which is why we recommend waterproofing beneath the material in submerged applications to ensure a proper seal.

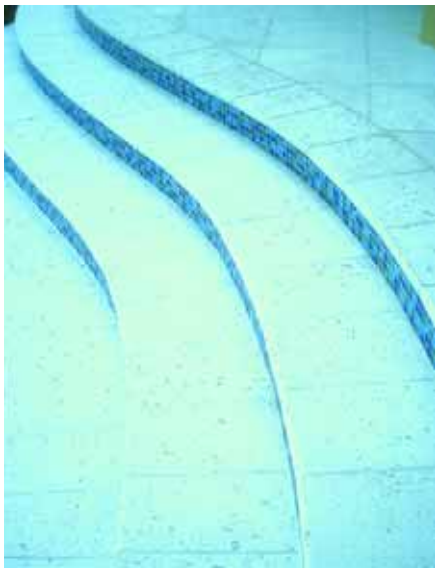
Next in line is a family of specially designed waterline tile pieces, with added glass for a bolder appearance and admixtures designed to reduce alkali silica reactivity (ASR) and make the product fully useable in true wet/dry applications. (For now, we recommend the product for use either in completely submerged or mostly dry settings.)

The Green Scene

The way we see it – and as our clients tell us – the fact that the product is made almost entirely from waste or recycled materials works distinctly in its favor. But even in places where the "environmentally friendly" label doesn't translate to increased demand or sales, the product stands on its own because of its appearance and its performance in the field.

Indeed, the success of SeaStone will rest, as it should, in the usefulness of the product as a finish. We see the environmental aspect as a bonus, as we do the fact that the product has a texture that is very slip-resistant and conforms to standards set by the Americans with Disabilities Act. Then there's the fact that the material doesn't absorb heat and is therefore well suited to outdoor settings in which people walk with bare feet.

These features have led to a positive reception for a product borne entirely of my frustration – not a bad outcome for a material that would otherwise be discarded as waste!



Whatever the application – as steps, as pool coping, on the waterline, as a beach entry or on architectural planes – the product is a flexible surfacing material with a strong visual character and a distinct, coral-like texture and coloration.

Good Medicine

The watershapes that literally embrace the McKay-Dee Hospital Center in Ogden, Utah, were crucial to the success of the facility's self-consciously relaxing, curative environment, says Derk Hebdon, president of Salt Lake City's Bratt Water Features. Highlighted by a 65-foot water plume and a soothing, 170-foot-wide sheet waterfall, the complex was designed with the needs of patients, visitors, staff and the community very much in mind.

By Derk Hebdon

Built to function and compete in an era when marketing matters for healthcare facilities, the McKay-Dee Hospital Center was designed to create a soothing, supportive, healing environment for patients, visitors and staff – so much so that the center looks more like a resort hotel than a medical institution.

The architecture is open and soaring, offering sweeping views from interior spaces set up for comfort and restfulness. Designed by Jeff Stouffler of HKS Architects of Dallas, the structure is organized around a four-story atrium that runs the length of the building, offering clear lines of sight not only to distant mountain and valley views, but also to nearby landscapes graced with winding paths and beautiful watershapes.

The opening of the 690,000-square-foot facility on March 25, 2002, was accompanied by great public fanfare. As people in the community have embraced and begun to seek care there, it's been a point of pride for all of us at Bratt Water Features to know that the beautiful curving lake that wraps around the exterior of the gleaming building is one of the things people see, enjoy and appreciate the most.

Broad Scope

Our job was to build all of the watershapes, including seven small fountains and the big lake system, based on designs prepared by Waterscape Consultants of Houston and by landscape architect James Burnett, also of

ALL-EMBRACING: The project was executed on a grand scale with a shape somewhat suggesting the head of Bullwinkle, the cartoon moose, whose antlers wrap around the west end of the hospital to create a zone of soft sounds and recuperative serenity.

Houston. As bidders on the installation contract in 1999, we had the advantage of being a local firm – but we also brought extensive experience with large-scale public waterfeatures to the table.

And this project was *big*. As far as anyone on the design team knows, this is the largest waterfeature/fountain complex ever built in the state of Utah. We refer to the feature as "Bullwinkle" because, when seen from overhead, its oddly symmetrical free-form shape casts a silhouette resembling the cartoon moose's head and antlers.

The antlers wrap around the footprint of the southwest end of the building, with the nose stretching away from hospital to create a broad lake with a towering geyser at the far end. The 175-foot-wide, 500-foot-long watershape features a 170-foot-long waterfall between the antlers and the crown of Bullwinkle's head that faces an outdoor pavilion/eating area served by an indoor café.

The water falls four feet into a teardrop-shaped lower pond that serves as a catch basin – and which turned out to be critical to system operation as well as to project aesthetics, as I'll explain below.

After winning the bid, we came on site and had to deal with a muck pond fed by a natural spring that happened to emerge just where the lake was to be installed. Helpfully, the project's excavation contractor had set up an extensive system of French drains around the perimeter of the lake site. We were able to use this as *part* of our dewatering system, but we soon found that we needed to take greater measures to build as planned.

Indeed, it was a constant struggle in the early going. Our excavator often bogged down in mud, for example, and it took us weeks instead of days to shape and install the vessel. Ultimately, we handled the flow by setting up three ponding locations near points where the spring poured into our basin. We set up "trash" pumps at these spots that ran constantly to keep the water level down.

On 'Dry' Ground

Once the dewatering system was fully functional, we completed the excavation and began the next stage of construction by laying out the extensive

AURAL EFFICACY: **By day and when lit at night, the long weir treats those sitting on the deck area to the sights and sounds of falling water. The**

network of intake and return lines.

There are eight intake areas in the watershape, each made of perforated six-inch pipe and set in the catch basin downstream from the waterfall. The intakes feed into two 12-inch lines that run about 100 feet to the pump vault. The pump array consists of three 10-horsepower pumps – one driving the geyser and the other two returning water to the large upper lakes.

The water is returned via bottom-mounted, anti-vortex assemblies made by Roman Fountains of Albuquerque, N.M. The hospital team was adamant that they did not want to see *any* swirling or foam on the water's surface above the returns.

With all the plumbing laid, we were ready to place the liner system – a "sandwich" consisting of a geo-textile underlayment topped by a 45-mil rubber EPDM liner that was in turn topped by another geo-textile layer. This entire surface area was then covered by gravel and cobble.

The pipes were positioned beneath the gravel and cobble, which effectively forms big biological filters above the intake points. In our experience, this is the best way to maintain water quality in big lakes: Whenever we can set it up this way, we go for it – and the results are consistently awesome, with water so clear you can see right through to the cobbles.

We did things this way because we knew right from the start that crystalline water was of paramount importance to the hospital team. They wanted to make the paths around the grounds accessible to wheelchair-bound patients and those able to walk on their own, and of course they wanted everything those patients and their guests would see to be pristine, healthful and encouraging. Given a high projected volume of traffic that would include patients, visitors and staff, there was simply no room for compromise.

With these systems established, we moved on to deal with the project's many aesthetic details.

Far Falls

The most dramatic of these details is the long weir. Approximately 2,000 gallons per minute flow over this extended

emphasis here was on *soothing* rather than *overwhelming*, with a light flow of gently cascading water rather than a more impressive (and noisier) flow.

EASING ACCESS: **The watershape is surrounded by pathways that allow reasonably close approaches to the water, enabling patients as well as staff to pick favorite spots at water's edge to enjoy the sights and sounds beyond – whether facing the weir and its falling water (A) or taking in the long vanishing-edge effect (B).**

edge to create a thin sheet fall.

The weir itself is an engineered, poured-in-place reinforced-concrete wall that's 18 inches thick with a large concrete footer – dead level from end to end. A local structural engineer prepared this detail, which also needs to retain the considerable weight of the water in the upper lake.

Finished with the same Utah stone veneer used throughout the hospital structure and hardscapes, the structure is lit by 65 underwater brass lighting fixtures, 200 watts apiece, that line the base of the falls and light the whole expanse spectacularly at night.

The falls reward observers who take it in from multiple angles and different perspectives. From a large part of the path that wraps around the lake, for instance, the water flows over the edge in a vanishing-edge effect – a classic water-on-water view where the lower pond comes into play. When you're out in the deck area next to the waterfall, the view of the sheeting water is quite dramatic in a different way – but all in keeping with the thought of maximizing a sense of soothing and healing rather than stirring up excitement or much noise.

The bottom pool is just 14 inches deep and a fraction of the size of the upper lake, which makes this catch basin the functional heart of the system. When the pumps are shut down, a considerable amount of water from the upper pool flows into the lower vessel, which has just an eighth of the surface area of the upper pool. This meant that we had to come up with a mechanical solution to accommodate the rare occasions

Continued on page 62

Seven Fountains

Seven small fountains are strategically located at the entrances to the building – in all cases, nice examples of the ways small amounts of flowing water can have positive effects on settings.

Five are very small and do little more than send small water flows over low walls, echoing the weir effect of the main feature. There are also two others that consist of large boulders cut into large wheels or disks, with water pooling and flowing gently over their sides.

Although these watershapes are quite modest by comparison to the lake, they add a sense of tranquility to their spaces and serve their intended purposes by soothing patients, visitors and practitioners as they enter and leave the hospital facility.

– D.H.

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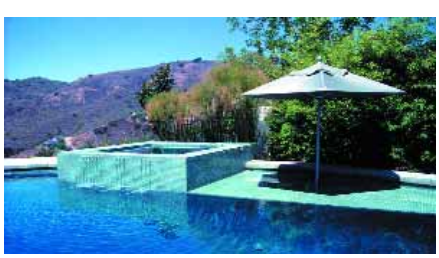

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when the system's pumps would not be operating.

To do so, we ran an 18-inch pipe to a specially designed drain – 12 feet long, two feet high and three feet wide – that we installed in the lower pond. This upright rectangular structure has overflow slots that can be adjusted to set the level of the pond. In effect, this drain works like a stilling well, allowing water to gather as it is pumped out – in this case to waste via the site's storm-drain system.

The overall water level is controlled using a similar (but much smaller) stilling well equipped with an electronic sensor wired to a relay that controls a valve assembly hooked into the city water system. (At first, the hospital had us plumb the make-up system to a reservoir adjacent to a nearby dam. Almost immediately, however, we experienced problems with seeds and organics that came in with the water, so the system was re-plumbed into the public water utility.)

As long as the system is running, the only thing requiring control is the level of the bottom pool – basically to accommodate losses due to evaporation with fresh make-up water.

A Healing Flow

On the upper lake's far end (relative to the hospital), there's a spray effect that sends an aerated column of water 65 feet into the air, creating a falling curtain of water that lends an inspiring sense of majesty to the space.

This feature is fed by a six-inch PVC line that flows to six, two-inch fountain nozzles supplied by Roman Fountains. The water moves at 500 gpm, running from 7 a.m. until 10 p.m – except

at times when the wind exceeds five miles per hour. Five 500-watt submersible lights make it glow beautifully at night.

There are also three centrally located aerators, each bottom-mounted and driven by a blower located in the pump vault. They run during the hours – from 10 p.m. until 7 a.m. – when the fountain is off.

The pump vault is buried beneath a landscaped area close to the water. This 15-by-12-foot space sits beneath a collar that yields a generous eight-foot interior ceiling height. The vault houses the pumps, the aeration system and the water make-up system and has two vents – one equipped with a thermostat and an exhaust fan. There's also a sump-pump assembly that will come on automatically if the vault starts to flood for any reason.

One of the fascinating aspects of this project is its reflection of a trend in hospital- and healthcare-facility design toward borrowing ideas from the hospitality industry. As the managed-care industry has become more competitive, beautifying facilities has become a means of drawing patients as well as health-care professionals. This made our work on this big waterfeature doubly meaningful by combining high quality with high purpose. And it seems to have worked on both levels ever since the facility opened its doors in 2002.

All it takes is watching a patient walking or being wheeled around the water and enjoying the sights and the sounds to muster a sense of satisfaction that speaks to the fact that, when used the right way, water really is good medicine.

GOOD MEDICINE: Up close or from a distance, the 65-foot spray effect rising above the pond's crystalline water is the key visual feature of the hospital's watershape complex, lending a sense of majesty to the space without altering its aim of being both peaceful and comforting.

Of Interest

The following information has been provided to WaterShapes by product suppliers. To find out how to contact these companies, look for the Product Information Card located on page 60.

Decking and Coping Catalog

Circle 135 on Reader Service Card

STEGMEIER CORP. has published its 2004 Catalog of construction forms for use in setting up coping and deck systems for gunite and vinyl-lined pools. The 66-page booklet covers forms for use in creating details such as cantilevers and fiberoptic tracks as well as systems for deck drains, expansion and control joints and more. A special gatefold at the end of the catalog lays out all of the profiles. **Stegmeier Corp.**, Arlington, TX.

Gutter Systems

Circle 136 on Reader Service Card

BRADFORD PRODUCTS offers a complete line of stainless steel gutters for swimming pools. The products come in five styles for a variety of applications (four with grates, one an open-throat system); accessories and options include converter boxes for filtered-water return, recessed steps, deck drains, trough gutters, gutter-wash systems, ceramic-tile facings, gutter grates and more. **Bradford Products**, Wilmington, NC.

Ride-On Trowels

Circle 137 on Reader Service Card

MULTIQUIP offers the Whiteman HTX and STX hydraulic ride-on trowels. Designed for simple operation and better control than previous models with the same high-level productivity, the units feature improved steering responsiveness, simultaneous blade-pitch control, rotor-speed control and easy service access. The HTX finishes paths 192 inches wide; the STX has a 117-inch path width. **Multiquip**, Carson, CA.

Pool Coping

Circle 138 on Reader Service Card

STEPSTONE has published literature on its classic pool coping line. Available in 11 different radius dimensions, nine standard colors and either a sandblasted or lightly stippled surface finish, the pre-cast coping is made of high-strength, hard-rock concrete to offer durability along with fine aesthetics. The literature covers architectural details and applications, and color/finish samples are also available. **Stepstone**, Gardena, CA.

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MISSING ANY?

r **February 1999** (Vol. 1, No. 1)
Tisherman on working in difficult soils; **White** on edge treatments; **Lacher** on expansive soils.

n **April 1999** (Vol. 1, No. 2) Sold Out!
Hopkins on designing with large rocks; **Hare** on basic hydraulics; **Straub** on shell curing.

r **June 1999** (Vol. 1, No. 3)
Phillips on water and decks; **Parmelee** & **Schick** on soils and geology; **Anderson** on water sounds.

r **August 1999** (Vol. 1, No. 4)
Anderson on stream design; **Adams** on community waterparks; **Gutai** on spa hydraulics.

r **October 1999** (Vol. 1, No. 5)
Holden on aquatic-design history; **Mitovich** on dry-deck fountains; **Tisherman** on site geometry.

r **December 1999** (Vol. 1, No, 6)
Finley on Japanese gardens; a roundtable on pools and landscape design; **West** on color rendering.

n **January 2000** (Vol. 2, No. 1)
Hart on designing for model homes; **Zaretsky** on retaining walls; **Chapman** on hydrid pool finishes.

r **February 2000** (Vol. 2, No. 2)
Hersman on lighting design; **Macaire** on faux-rock installations; **Andrews** on glass mosaics.

r **March 2000** (Vol. 2, No. 3)
L'Heureux on project management; **Long** on steel cages; **Forni** on installing and maintaining lakes.

r **April/May 2000** (Vol. 2, No. 4)
Schwartz on garden access; **Anderson** on streambeds; **Nantz** on watershapes and architecture.

r **June/July 2000** (Vol. 2, No. 5)
Holden on fountain-design history; **Bibbero** on large stones; **Anderson** on making streams work.

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Tisherman on slopes; **Lucas** on watershapes for wildlife; **Ryan** & **Medley** on the vertical axis.

r **September 2000** (Vol. 2, No. 7)
Davitt on designing for small spaces; **Altvater** on the importance of aeration; **Hetzner** on sheet falls.

n **October 2000** (Vol. 2, No. 8) Sold Out!
Lampl on natural design; **Anderson** on finishing streams; **Rubenstein** on kinetic water sculpture.

r **Nov./December 2000** (Vol. 2, No. 9)
Arahuete on John Lautner; **L'Heureux** on stretching laminar flows; **Benedetti** on satellite surveying.

r **January/February 2001** (Vol. 3, No. 1)
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r **March 2001** (Vol. 3, No. 2)
Moneta & **Farley** on site-specific design; **Benedetti** on fiberoptics; **Alperstein** on golf-course water.

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Winget on fun-inspired waterforms; **Holden** on survey formats; **Schwartz** on classic stonework (I).

r **July/August 2001** (Vol. 3, No. 6)
Rugg on pond basics (I); **Ruthenberg** on perimeter overflow; **Schwartz** on classic stonework (II).

r **September 2001** (Vol. 3, No. 7)
Rugg on pond basics (II); **Urban** on energy savings; **Pasotti** on interactive waterplay.

r **October 2001** (Vol. 3, No. 8)
Tisherman on hilltop views; **Hagen** on natural stream work; **Schwartz** on classic stonework (III).

r **Nov/December 2001** (Vol. 3, No. 9)
Straub on Kansas City's fountains; **McCloskey** on the Getty Center; **Tisherman** on Fallingwater.

r **January 2002** (Vol. 4, No. 1)
Phillips on Hearst Castle's watershapes; **Bower** on the Raleigh Hotel pool; **Roth** on Katsura Rikyu.

r **February 2002** (Vol. 4, No. 2)
Marosz on project integration; **Moneta** on spa-edge details; **Affleck** on sculpture and water.

n **March 2002** (Vol. 4, No. 3) Sold Out!
Holden on a retro-look design (II); **Morris** on wild water; **L'Heureux** on fountain lighting (I).

n **April 2002** (Vol. 4, No. 4) Sold Out!
Oliver on multi-level flows and transitions; **Gutai** on pump basics; **Dews** on hiding headwaters.

r **May 2002** (Vol. 4, No. 5)
Anderson on pond essentials; **Pasotti** on interactive waterplay; **Gibbons** on 'stellar' fiberoptics.

r **June 2002** (Vol. 4, No. 6)
Altorio on civic fountains; **Gutai** on skimmers; **Beard** on working with landscape architects.

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Holden on retro details; **Dunn** on quality, mid-range pools; **Varick** on grand-scale watershaping.

r **September 2002** (Vol. 4, No. 8)
Rosenberg & Herman on site-sensitive design; **Dirsmith** on long-term design; **Gutai** on filters.

r **October 2002** (Vol. 4, No. 9)
Copley & Wolff on modernizing fountains; **Bethune** on imitating nature; **Tisherman** on edgy colors.

r **Nov/December 2002** (Vol. 4, No. 10)
Holden on Villa d'Este; **Hobbs** on Maya Lin's watershapes; **Phillips** on water in transit.

r **January 2003** (Vol. 5, No. 1)
Fleming on high-end ambitions; **Harris** on decorative interior finishes; **Gutai** on surge tanks.

r **February 2003** (Vol. 5, No. 2)
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r **March 2003** (Vol. 5, No. 3)
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r **April 2003** (Vol. 5, No. 4)
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r **May 2003** (Vol. 5, No. 5)
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Hebdon on borrowing naturalism; **Ruddy** on indoor designs; **So** on modernist sculpture.

r **October 2003** (Vol. 5, No. 10)
Mitovich on dry-deck fountains; **Roth** on liner issues; **Marckx & Fleming** on glass tile.

r **November 2003** (Vol. 5, No. 11)
Holden on carved stone; **Shaw** on roles of consultants; **Forni** on period-sensitive renovation.

r **December 2003** (Vol. 5, No. 12)
Five-year article and topic indexes; five-year index for all columns, 1999-2003.

r **January 2004** (Vol. 6, No. 1)
Ruddy on enclosures; **Lacher** on steel and concrete; **Forni** on water quality for natural watershapes.

r **February 2004** (Vol. 6, No. 2)
Varick on nature and architecture; **Benedetti** on

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EQUIPMENT CATALOG

Circle 139 on Reader Service Card

WATERWAY has published its 30th Anniversary Catalog, a 204-page book covering its complete lines of pool and spa products. The pool section includes pumps, sand and D.E. filters, chlorinators, valves, blowers, skimmers, drains, fittings and more, complete with parts lists and diagrams. The spa section features jets, falls, fittings, manifolds, air controls, filters and more, once again with full schematics. **Waterway**, Oxnard, CA.

PRE-FABRICATED STREAMS

Circle 140 on Reader Service Card

REPLICATIONS UNLIMITED has introduced a series of easy-to-install, pre-manufactured streams, cascades and waterfall kits for residential watergardens and landscapes. Durable but lightweight, the streams are available in 12 modular sections that can be combined in a variety of positions and levels. Molded from real rock formations, they can be added to existing ponds or can stand alone. **Replications Unlimited**, St. Louis, MO.

POND LINERS

Circle 141 on Reader Service Card

FIRESTONE manufactures PondGard EPDM rubber liners for ponds and other waterfeatures. Designed for flexibility, durability and easy installation, the .045-mil-thick material is safe for fish and plant life, comes in a range of sheet sizes from small to immense, resists weather and UV-degradation and has high expansion/contraction characteristics that enable it to conform to sub-grade objects. **Firestone**, Carmel, IN.

POOL SLIDE

Circle 142 on Reader Service Card

S.R. SMITH introduces the Big Dipper pool slide for residential or commercial pools. The durable, four-piece, heavy-duty, roto-molded polyethylene structure is available in a cream color with either a right or left curve and has a self-contained water-lubrication system. The unit needs a 4-by-10-foot deck footprint, assembles in less than one hour and can be mounted into the deck or on-deck. **S.R. Smith**, Canby, OR.

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Standpipe Protectors

Circle 143 on Reader Service Card

NSW has adapted its extruded rigid-plastic tubes to protect standpipes for ponds and other circulating water systems. The extensions prevent standpipe blockage by trash, sticks, leaves or small wildlife by maintaining free flow through the tube's plastic mesh. They are available in 1-, 1-1/2-, 2-, 3- and 4-inch diameters for use with schedule 40 PVC pipe and can easily be cut to length for any application. **NSW**, Roanoke, VA.

Thatched Shade Structures

Circle 144 on Reader Service Card

PALAPA KINGS offers high-quality thatched shade structures for use in a variety of applications. Ranging from seven to 12 feet in diameter with single main poles, the permanent fixtures are designed to last more than 15 years and are available with two roof styles – either a natural, hand-woven palm thatch in two layers or a reed thatch bonded with a polyurethane mix for use in adverse climate areas. **Palapa Kings**, Carlsbad, CA.

Metal Skimmer Lids

Circle 145 on Reader Service Card

SKIMMERLID.COM makes metal skimmer lids as a finishing touch for pool decks. Each lid is cast and professionally finished, with inner- and outer-ring patterns turned on a lathe for beauty and symmetry. Available in bronze or in powder-coated aluminum in four standard colors (gray, copper-vein, tan or dark brown) and many custom colors, the lids are slip-proof, groundable and secure. **Skimmerlid.com**, Pittsburgh, PA.

Hand-Held Rebar Cutters

Circle 146 on Reader Service Card

FASCUT INDUSTRIES offers the Lobster line of handheld rebar cutters. The tools are available in two corded 110-volt models and a cordless rechargeable 12-volt model. One of the corded models cuts bars up to #6; the other two cut up to #5. All models feature a cutting head that can be rotated up, down or sideways, allowing for quick cutting of bars in different positions and locations. **Fascut Industries**, Sauk City, WI.

Of Interest

Pond Skimmers

Circle 147 on Reader Service Card

CAL PUMP has introduced the SK2, a new generation of the company's line of pond skimmers. The unit is made of high-impact, weather-resistant ABS, eliminates the need for manual skimming and can be used effectively in ponds as shallow as 12 inches deep. The device, which can easily be retrofitted into existing ponds, is designed for easy installation – no tools are required. **Cal Pump,** Valencia, CA.

pH Monitor/Controller

Circle 148 on Reader Service Card

ACU-TROL PROGRAMMABLE CONTROLLERS offers the new Smart pH controller, a water-quality management system designed specifically for residential pools and spas. Made with commercial-grade components, the device continuously measures pH and adjusts chemistry to avoid troublesome highs and lows while reducing chlorine consumption. **Acu-Trol Programmable Controllers**, Auburn, CA.

Deck and Tile Cleaner

Circle 149 on Reader Service Card

CERTOL INTERNATIONAL offers AquaMagic, a specially formulated muriatic-acid replacement that cleans rust, scale, oil and grime from pool decks and tiles. Ideal for use on indoor pools, the product has all the advantages of acids while nearly eliminating their dangers and toxic fumes. The 100% biodegradable liquid also works for acid-washing without any dangerous fume cloud. **Certol International,** Denver, CO.

Need more Information?

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Robotic Pool Cleaner

Circle 150 on Reader Service Card

WATER TECH now offers a professional version of the Blue Diamond pool cleaner. Designed to clean pools up to 75 by 25 feet in four hours or less, the robotic cleaner automatically changes cleaning directions to cover every inch of a pool. It also comes with an infra-red obstacle detection system, has a ramp/beach entry sensor and includes a remote control device for spot cleaning. **Water Tech**, New York, NY.

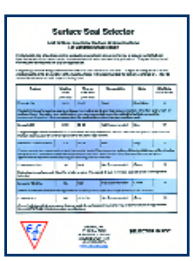
Garden Statuary

Circle 151 on Reader Service Card

BRASS BARON offers an extensive line of garden statuary, fountains and design accents for use in landscapes and around watershapes. Statues include everything from swans, fish, frogs and dolphins to little boys and girls in a wide range of poses and finishes. Planters and faux-stone ponds and fountain bases are also available, and several of the statues are paired with ponds in special packages. **Brass Baron**, San Diego, CA.

Crack-Repair Guide

Circle 152 on Reader Service Card



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

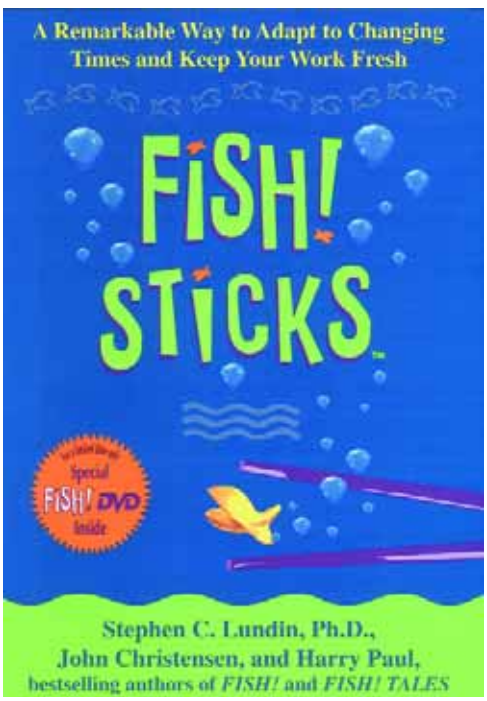
Earth-Moving Rigs

Circle 153 on Reader Service Card

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

By Mike Farley

Fish Tales



Watershaping can be so demanding a profession that it's easy to lose sight of the fact that what we do should really be fun and enjoyable. That's why I bring up two books this month that make a case for approaching your work in ways that encourage a daily sense of joy and adventure for both you and your clients.

The first is simply titled *Fish!* Written by Stephen C. Lundin, Harry Paul and John Christensen (Hyperion, 2000), it's a modern parable about a woman named Mary who has taken over as manager of her company's toxic-waste management division.

It's a job with horrid potential, but as the story goes, Mary is helped by a visit to the famous (and very real) Pike Place Market in Seattle, where she's captivated not only by the wonderful fish on sale, but also by the joy and pleasure she derives from shopping there. What Mary learns is how to take a seemingly miserable job and turn it into something that is not only tolerable, but in many ways extraordinary.

She learns along the way that you choose your attitude and that how you feel about what you do for a living or in your personal life is really a matter of choice. She also recognizes that, whatever it is you do, you should give it your full attention while you're doing it, avoid distraction and stay in the moment. This is crucial, we learn, to providing clients with a memorable experience that leaves them feeling good about their interaction with you.

A final lesson Mary learns at Pike Place is the importance of playing while you work. This is not to say that one should goof off or waste time, but that you should have fun and find joy in diligence and in focusing on the task at hand.

Certainly all of this is wonderful advice and something from which many of us might gain wisdom and a more positive approach to the often-arduous process of building pools, spas, ponds, streams, fountains and other bodies of water. But most of us also know that, while it's easy to give lip service to finding joy in our work, it's another challenge to apply such principles over time.

That's why the same authors followed up their first trip to the fish market with *Fish! Sticks* (Hyperion, 2003). Here, we meet a nurse named Rhonda who works in a hospital that has implemented a program to foster a positive working environment – but has seen those efforts fade with time.

Rhonda visits a fictional sushi restaurant in New York City and, like Mary, comes away with an important set of lessons aimed at maintaining the practices and attitudes described in the first book.

First, Rhoda learns, you must "find it," meaning that when you take on a new approach you must internalize the idea by figuring out where you fit within the overall scheme of the business. Second, you must "live it," which means determining in specific terms what you can do to apply the positive attitude. (This is a big point, because every company and organization is different and the authors make it clear through Rhoda that all companies and all individuals need to find their own paths.)

Finally, Rhoda recognizes that there's a third step and that she must "coach it." This can be best described as establishing and implementing the structure in a way that each person is involved and every person participates in reaching the organization's overall goals.

Each of these books checks in at fewer than 120 pages, making for extremely quick and very entertaining reading. As is the case with other books that define principles that can be applied across various situations and disciplines, *Fish!* and *Fish! Sticks* are books you may find yourself returning to as you work to create what I choose to call "the adventure of watershaping."

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

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