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## Japanese Garden Design

A journey through the modern,  
western Japanese Garden

p. 56





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Natural disasters and stop-work orders are not usually components of a successful construction project, but in this case, they motivated **Jerry Romano** to craft a breathtaking boulder feature that would become his showroom's centerpiece.

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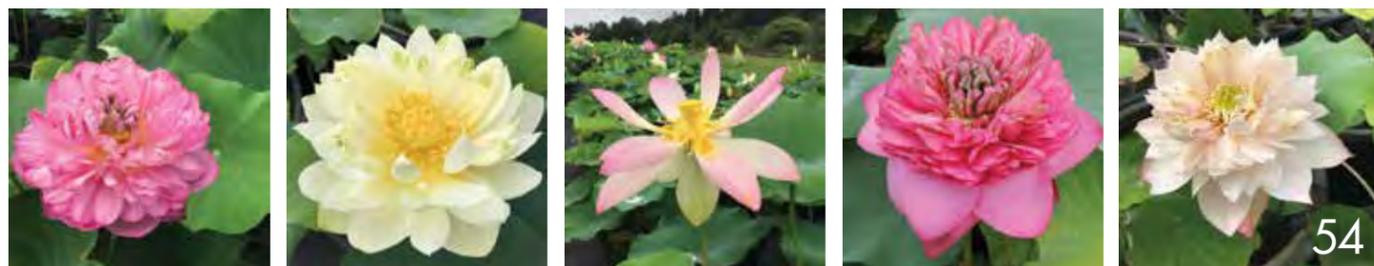
There is little more worrisome for a water feature contractor than pricing themselves out of business. Fear not, says **Tom Grandy**. He explains how to reasonably raise your rates without losing business.

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In our last issue, **Kent Wallace** recounted the design and build of a formal, still pond with Foo Dog statues for a client in the arid climate of Las Vegas. Don't miss Act Two of this story, with the team bringing the design to fruition with a sophisticated network of plumbing and filtration techniques.

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Crafting a western-style Japanese garden requires more of an understanding of philosophy than the ability to follow a "how-to" guide. **Jerome Skuba** takes us back through thousands of years of tradition in order to grasp the simplicity, uniqueness and environmental awareness of this waterscape design.

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Did you have the opportunity to attend Atlantic Water Gardens' second annual Professional Conference in Cleveland, Ohio? We certainly did, and we've got the photos to prove it. Publisher **Lora Lee Gelles** has the recap of some of the highlights of this year's show.

### 54 Lotus Lowdown

Ten Mile Creek Nursery caught the lotus bug back in 2009, and today, as operational manager **Laura Bancroft** explains, it's one of their best sellers. See why growing the popular water plant may not be as daunting as you once thought.



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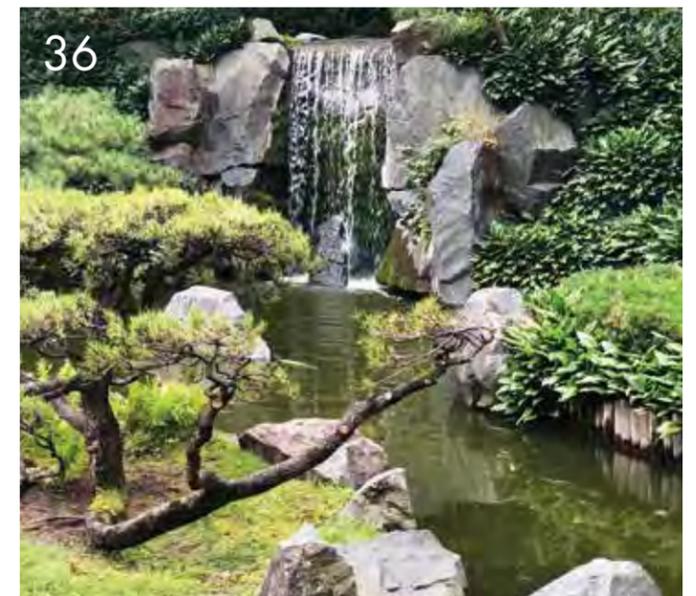
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## Upcoming Events

2018

**October 31 - November 2**  
**International Pool | Spa | Patio Expo**  
Mandalay Bay Convention Center  
Las Vegas, Nevada  
www.poolspapatio.com

**December 3 - 7**  
**Irrigation Show 2018**  
Long Beach Convention Center  
Long Beach, California  
www.irrigation.org

2018

**January 9 - 11**  
**MANTS**  
Baltimore Convention Center  
Baltimore, Maryland  
www.mants.com

**February 19 - 22**  
**Water Garden Expo**  
Heart of Oklahoma Expo Center  
Shawnee, Oklahoma  
www.wgexpo.com

**March 2 - 3**  
**32nd Annual Koi Club of San Diego Koi Show**  
Del Mar Fairgrounds  
Del Mar, California  
www.koiclubofsandiego.org

Are you attending an event that you think others should know about? Are you hosting an event and want more people to come? Send event info to [llgelles@pondtrademag.com](mailto:llgelles@pondtrademag.com).

**March 22 - 24**  
**Central Florida Koi & Goldfish Show**  
Avanti Palms Resort Hotel  
Orlando, Florida  
www.cfks.org

**May 7 - 9**  
**National Hardware Show**  
Las Vegas Convention Center  
Las Vegas, Nevada  
www.nationalhardwareshow.com

**August 21 - 25**  
**Pondemonium**  
The Q Center  
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## Publisher's Perspective

### Page 66

Got your attention with that headline, I bet! As I was finishing up designing this issue, I came to the "final" page, page 66, which shows a beautiful photo with the catch phrase "Time to Reflect." Now that the leaves are falling, colder weather is setting in (at least for us up north) and the calendar year is coming to an end,



I'm sitting back reflecting that it has been a good year. I think most of you would agree that pond building has been on an upswing, and the economy is doing well.

We've had a great year at POND Trade, too. We've been fortunate to have a wide variety of in-depth, innovative articles this year, with a lot of new writers and perspectives. Our second annual Water Artisans of the Year contest was a huge hit, and it's hard to

believe the results of our third contest are just two issues away. But rather than look too far forward, I think it's important to continue to reflect on the here and now.

Case in point, I'm really excited about the Japanese Garden Design feature on pg. 36. We've been trying to run an article on this topic for more than a year, and Jerome Skuba did a great job covering the topic. I worked closely with Jerome on the photography, and he had me visit and shoot several locations. Hey, you don't have to twist my arm to do that! Japanese gardens are so welcoming and peaceful, and it was my pleasure to have a small hand in this issue's cover feature.

Jerome's article is just one of eight fascinating features we've lined up for you in this issue. In the pond construction department, Jerry Romano recounts a harrowing sequence of events that led to the creation of a true gem when it comes to larger-than-life water features. Flip the page and check out the "miracle boulder" that now adorns Jerry's company showroom.

For you business owners who may be struggling to keep your rates competitive, Tom Gandy has an eye-opening feature about raising your hourly wages on pg. 16 that might make you think differently about the subject in the future. Also, don't miss Laura Bancroft's "Lotus Lowdown" at the end of the issue for everything you need to know about this easy-to-grow aquatic plant.

Happy PONDering!

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# Solid as a **Rock**

Making the most of challenging circumstances

by **Jerry Romano,**  
Liquid Designz of New Jersey

**O**ur Liquid Designz showroom is situated on a fairly busy, double-lined county road in Northern New Jersey. It presents a perfect opportunity to showcase some of our beautiful work as close to the road as possible, so passing traffic can view one or both of our two displays flanking the corners of our property, approximately 150 feet apart.

On one side we have a lovely, multifac-

eted design, which includes multiple spillway bowls, urns, gorgeous driftwood, large rocks and colorful plantings along with a Jersey-shore theme of thick rope running through three sets of pylons. The other side has our latest “insane,” floating 1-ton boulder that you see pictured here.

However, it was a bit of a journey to get to this point.

## **Mother Nature Strikes**

It started about three years ago when a storm blew through the area, knocking down

an enormous tree onto some live wires. At the time, no displays were located there, as it served as nothing more than a place for us to receive stone deliveries. I didn't realize that because the tree was partially located on my property, the power company was only obligated to cut the parts of the tree that were hanging on the wires and clean any debris off the road. I wasn't home at the time, but I was ready to lose it when I noticed every branch, limb and trunk that was thrown onto my property.

I decided to remain calm and was fortu-



The vertical support boulder (left) and 1-ton boulder were finally set and secured. The calm (or mayhem) caused by this act of nature (middle) set off the sequence of events that followed. The vertical support boulder (right) was secured and positioned during the cement pour.



nate enough to be able to move everything out of the way with our MT52, except for the largest piece of the tree. It was lying mainly in the woods adjacent to our property, but it extended about 10 feet onto my property. I turned this negative into a positive and built a small, cool-looking pondless waterfall with water originating from inside the large piece of tree section on my property. It was nice for a while, but I tend to get bored quickly.

Fast-forward about three years, and I was cleaning out a residential pond for my largest commercial client, the CEO of a major hospital in New Jersey. He told me they were looking to do something fairly impressive at the hospital's hospice location, which sits on 25 acres and backs up to a natural wetland. I would be working with another hospital contractor I was already close with, who had an amazing crew of guys. I was very excited about the opportunity.

The first thing on my list was to ask the CEO one simple but telling question: "Did you want Six Flags or Disney?" Without any hesitation, his answer was — you guessed it — Disney. "Good choice," I told him.

### Making Magic

So, the project had everything — a large pond with massive boulders, a wetland filter with a small stream running to one end of the pond, a 90-degree, 9,000-gallon reservoir that wrapped around a huge, porcelain tile patio, and massive seating boulders up close and personal, where the pond falls into the negative edge.

All this, and yet the coolest part of the project was not shown on the plans at all. Fortunately, the CEO trusted me, and when he heard the words "Miracle Boulder," he figured it went well with the unfortunate theme of a hospice location. This project was being constructed for the countless families of loved ones who would soon be passing on. The Miracle Boulder was to be situated as a circular pondless feature set up to start the 50-foot stream, which would lead back to the pond on the other side. The Miracle Boulder was to be 8 feet above the water and natural looking. This was the farthest point out in this huge, open field.

Larger plantings would have followed. Did you catch that? Would have followed.

Unfortunately, the town shut down all construction after we finished installing the huge reservoir and ground water pumps, as the water table was high.

### Bringing it Home

So as things were being worked out at the hospice location, I certainly wasn't going to hang around. I told my contractor buddy I was going to build the Miracle Boulder at our showroom right where that darn tree came down. "Sure you are," he said. Two days later, the initial little pondless feature I had built there was ripped out, and I started my search for the right-sized materials to complete this "insane" design. It would have to be slightly scaled down and completely pondless based on the grade of the property and the location of the design.

Don't get me wrong. I was very disappointed regarding the stop-work order. However, while I was working at the hospice location, I had run into Matt, a very nice guy who owned an excavating company called Hartman Excavating. I decided to call him and ask him if he remembered me — which

I knew he did, because I was the nice guy who asked him to get off his machine and give us a hand with our 35-by-100 liner for the negative-edge reservoir. It was a blistering 98 degrees in a wide-open area. "Please don't ever ask me to do that again," he said.

We laughed a bit on the phone, and then I explained my vision to him regarding this "insane" design concept. "I have to be part of that," he replied.

So, the team was set. It was Matt, Paul (my foreman at the time) and, of course, yours truly. Little did I know what challenges were ahead of us.

### Getting to Work

First off, Paul and I ripped out the old pondless design and cut back the huge tree about another 6 feet so I could visualize my new design. We started with a boulder and a very rough, stacked stone retaining wall in a semicircle. Once the wall was completed, I needed Matt to use his small excavator to break up the hard clay and deep base of an old fieldstone retaining wall, along with years of tandems and tri-axes

Water in Motion: Our finished project (above) dazzles during the day. The vertical support boulder (above, right) was transported down to its final location, where it would be positioned, leveled and secured while the footing was being poured. The liner was in and folded back at this stage.



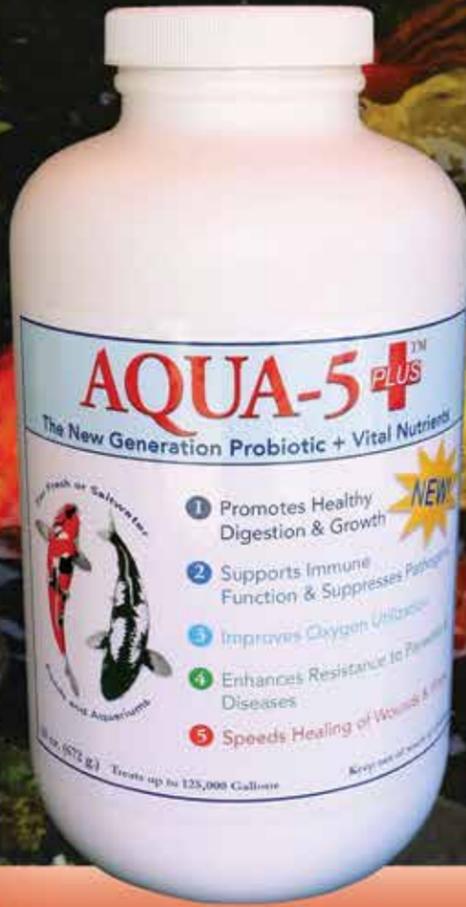
With the top boulder precisely measured, drilled and cut via our cardboard template, there were three critical alterations necessary to secure and position the rock to mesh perfectly with the support boulder.

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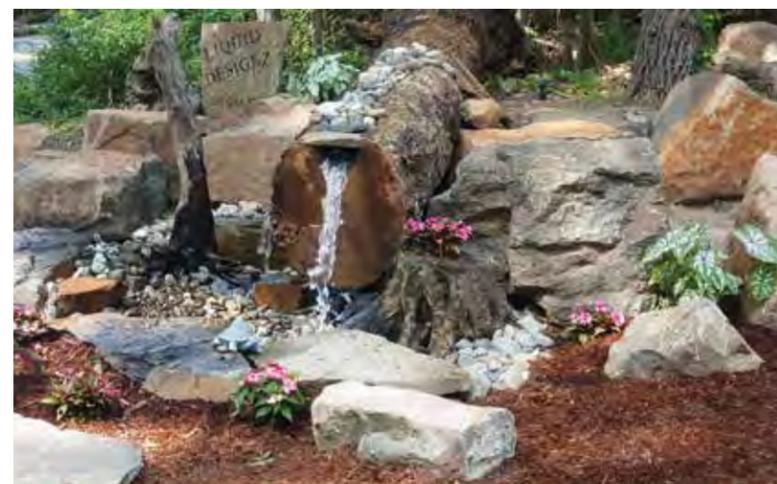
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Our initial pondless design (left) was a creative response to the tree that had crashed down. A portion of our insane design (right) was never completed. This 90-degree, or wraparound, vanishing-edge reservoir was the only phase that was completed due to a very high water table. However, it was the stop-work order of this project that led to the amazing design and adventure featured in this article.

compacting the area with countless stone deliveries. He was very busy at the time, so after he broke up the soil, it was all hands on deck to start digging out the reservoir, or so I thought.

I realized that the 6-by-6-by-2 footing, which would be situated in the center, had to be formed and excavated first. Once that was complete, we followed up with our Liquid Designz unique, thick gray underlay, followed by the 25-by-50 main liner. We then added another layer of the thick gray fabric.

The footing was excavated, lined, protected and ready for a short pour of concrete, which was a nightmare in and of itself.

It was time to reach out to Matt again, as we needed him to set the vertical rock just after the concrete was poured. I had the vertical rock strapped perfectly, and it was ready to go. Unfortunately, the shoot would not reach our footing area. The only thing we had to do was pull up the liner so I could get in close with the MT52. I also made it very clear to my foreman to be careful that

no portion of the liner would be cemented over. The vertical rock was set perfectly. We chained it to Matt's front-end loader and let it sit overnight. One crucial step was complete, with more to soon follow.

Now that the liner was in and the vertical support stone was securely in place, it was time to precisely measure, cut and drill the area on the underside of the large, slab-style stone that would be placed on top. We could only pray that those holes lined up with the vertical stone where our galvanized steel



pins were recessed. Again, it would require Matt in his machine, my foreman and yours truly on the ground. We had one side of the boulder labeled "Street," which was our guide. As precise as our cut and drilled holes for the steel pins had to be, we were almost dead-on. The boulder was to be recessed onto the vertical stone while we lined up the holes with the steel pins. The plan was to have Matt position the boulder over the center of the vertical stone while I would slightly spin and hold it with the MT52. My foreman was our eyes. It took a few shots, but we were triumphant. It was such a relief to get this portion of the design completed.

### Challenges Aboard

Some acute aggravation followed. Remember how we were rushed with the short pour? Well, as I went out the following morning to start pulling out the liner to gauge our reservoir excavation, I realized a section of our liner had gotten under a portion of the cement. To say I was livid would be an understatement. So with a little demo, sawing very carefully, I was finally able to free the liner. I did not have to compromise the footing, of course; I just had to cut away a fair amount of excess concrete.

Next, our reservoir was hand-dug with the aid of our Bosch electric jackhammer and formed a 600-gallon reservoir in a horseshoe shape. Once completed, the most difficult part of the design was up next.

Let's just say that one company gave me a price to build our manifolds for \$10,000, and that wasn't happening. The easy part was determining the correct pumps needed to create such a strong water push, with serious flow at low head. The real challenge was determining how to create a two-sided curtain of water so the vertical structure could not be seen at all while running. A series of 30 jets had to be placed close, but not too close, together to achieve the look we were going for.

Obviously, on our next install, there will be a 360-degree visual, so the pumps will be that much stronger. We will use many more jets, and we will move up to two 4-inch lines, opposed to two 3-inch lines.

Our final challenge came after our first test run. I had to figure out how I would control the splashing outwards while the intense water pressure was hitting the underside of our floating boulder. To make this work and form that illusion, the water from the jets had to be perfectly straight on the way up and again on the way down — similar to bumpers on a pool table, if you will. This took a bit of creativity. The underside of the rock surface obviously had to be cushioned in such a way. I had the perfect solution and I nailed it the first time.

There's unique creativity, and then there's "way outside the box" creativity. But none of it matters unless the design comes to fruition and the execution is

perfect. The design, though small in actual real estate, was our most challenging to date. Its beauty during the day and night, with water and no water, is the most gratifying part to me. ☞

### About the Author

**Jerry Romano** founded Liquid

Designz LLC in 2005. He didn't always feel that building water features would be his relentless passion. After receiving All American honors as one of the top punters in the nation, he decided to pursue his dream of punting in the NFL. After a number of invitations to camps, he realized that this particular dream would not come to fruition. He soon realized he could have the best of both worlds by developing Liquid Designz LLC during the week while punting footballs on Saturdays. Eighteen years and eight teams later, he was inducted into the Minor League Football Hall of Fame in 2015. Meanwhile, he has grown Liquid Designz LLC into one of the most recognized water feature companies operating in the northeastern United States.



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# The FEAR Factor

Have the courage to  
raise your hourly rates



## | Hourly Rates |

**by Tom Grandy,**  
Grandy & Associates

Nearly everyone in the trade industry cringes a bit when it comes time to raise his or her hourly rate. Is the new rate too high? Will it be too far above our competition's rate? Will our customers leave us? Is it really OK for me, the owner, to make more money? Besides, is raising my rate really fair to our customers?

These are the kinds of questions that often go through the minds of most company owners as they go through the mental gymnastics of whether to raise their hourly rate. The fear factor of raising our rates — even when completely justified — is huge.

### The Corporate Strategy

Has your insurance agent ever called you with fear and trembling to ask if it was OK to increase the cost of your policy? No, of course not. They simply sent you the bill with the new rate and didn't think twice about it. The new, higher-priced invoice was simply sent to you, and you had to pay it — like it or not!

What about McDonald's? When was the last time McDonald's took a customer survey to see if it was OK to raise the price of a Big Mac by 50 cents? Right, they never asked. Why didn't they ask? The answer is simple. They run a profit and loss statement every month on every product they serve. When the profit margin begins to slip on the Big Mac, what happens? The price goes up. If they didn't raise the price of the Big Mac, profits would begin to fall, and stockholders would be yelling. If the rising costs were not passed on to their customers, profit would not only fall, but eventually, they would also lose money and go out of business. That is not a good situation for McDonald's or their customers.

McDonald's has total confidence in their product. They know they have a great product, and they know customers will pay the price — whatever it may be — when they come through the drive-thru. The customer doesn't drive to McDonald's because they have the lowest-priced burger in town. They come



to McDonald's because they love their product — in this case, the Big Mac. The price goes up, the customer pays the new price, and McDonald's maintains their profitability. The principle seems simple enough, but most trade company owners

Now, some of you could be thinking, "Gee, Tom, I can't raise my rates even though I am now totally convinced it is costing me money. If I do, my rates will be higher than most of my competition. My customers won't pay it, and besides, I really

**Fear is a very powerful thing. It tends to paralyze us in the sense that when we are afraid of anything, we tend to do nothing. When it comes to running a business, doing nothing or failing to make necessary changes can literally put the company out of business.**

still struggle when it comes time to raise their pricing. This article is designed to help readers overcome the fear factor of raising their rates.

### Don't Be the Mule

Do you remember the old story about the mule and the two-by-four? The mule had to be hit with the two-by-four to get its attention before it would respond to a command. Well, fellow contractors, consider yourselves having just been hit with a two-by-four. Your costs are going up, and your pricing needs to at least cover the increase, if not exceed it.

don't think I am worth what I will be charging." Hello, is anyone listening? Your costs of doing business went up. Raising your pricing is not — I repeat — is not an option. It's a necessity!

### The Three Keys

Today's customer is looking for three things. First, they want quality work done. If you have seen the results of the studies, you will quickly notice that 80 percent of the population still wants quality work done. The other 20 percent are price shoppers and are not your customers. I repeat —

price shoppers are not your customers. The contractor who wins the bid war with the price shopper actually loses. You get the job, and not only can you not make money on it, but it keeps you from doing other profitable work.

The next thing the customer wants is for you to do what you said you would do. You have described the repair, remodel or installation of the pond. Just do what you said you were going to do.

The third thing the customer wants is for you to want you to do what you said you would do when you said you would do it. If there is one common complaint among customers in every trade across the country, it is the fact that contractors do not show up when they say they will be there. If you told the customer you were going to start on the new pond Thursday morning, be there. If you told the customer you would be at their home to make the repair between 10 a.m. and noon, be there. If you must change the time, that's fine, but call the customer and communicate with them ahead of time.

I have found a rather startling reality over

the years. When a contractor does quality work, does what they said they would do and shows up on time, price is not even on the Top 10 list of considerations. That's right — if you consistently do these three things, price fades from being one of the determining factors in having your company do the work!

### Find & Charge Your Rate

Remember that the fear factor of raising your rates is not on the part of the customer. It is on the part of your company.

Fear is a very powerful thing. It tends to paralyze us in the sense that when we are afraid of anything, we tend to do nothing. When it comes to running a business, doing nothing or failing to make necessary changes can literally put the company out of business.

Do the math, find out what you really need to charge per hour and recalculate your rate at least twice a year. Once you find out what you need to charge, charge it! Don't be afraid. Remember, improper labor pricing is the No. 1 killer of trade companies today.

Charge what you need to charge in order to cover costs and generate a reasonable profit. You will be glad you did! ☺

### About the Author

**Tom Grandy** has more than 35 years of experience in industry and small business. He has worked as the general manager of a service company and is the founder of Grandy & Associates, a firm that holds seminars, two day workshops and one-on-one consulting for business training. Grandy & Associates also writes articles for numerous trade publications. Tom routinely presents at national and state conventions. For contractors who are serious about profitable growth, we also offer our two-day "Planning for Profit" at numerous locations across the country. Go to [www.GrandyAssociates.com](http://www.GrandyAssociates.com) or call 800/432-7963.



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| Language of Koi |



Antibiotic injections are a highly effective tool in the fight against bacterial infections.

# Keep it Clear

How to recognize & prevent bacterial infections

by **Casey LeFever**,  
Blue Ridge Koi and Goldfish

Bacterial infections are among the most unsightly and frustrating health issues that koi dealers and keepers alike are likely to experience in their journey. As a dealer, arming yourself with information on the causes, prevention and treatment of bacterial infections not only can keep your stock healthy, but it can also build trust and confidence in your customers.

### How They Present

Bacterial infections manifest in koi in three ways — ulcers, fin rot and mouth rot. In each instance, the bacteria are eating away and destroying tissue on the body of the fish.

Ulcers begin as a red, raised patch of scales on scaled fish or as a small, circular, bluish-white spot on scaleless fish. Left unchecked, the ulcer will

quickly progress to an open, typically circular hole in the fish's body. Eventually, the ulcer will work its way through to the organs, causing death. Fin rot typically starts at the edge of the fins and works



Fin rot can be seen here on the dorsal fin.

its way inward, although you may occasionally see holes in the middle of a fin. Mouth rot, which eats away at the tissue around the mouth area, commonly starts with abrasions or damage to the mouth. This is usually from the fish rubbing



From top to bottom: An advancing ulcer is present on the body of a scaled fish. A bigger ulcer is seen on a doitsu (scaleless) fish. Fin rot advances on this fish. An ulcer presents on a scaled fish.

against nets or the sides of the tank, opening a pathway for the infection to set in.

### The Two Offenders

The majority of bacterial infections in koi are caused by one of two bacteria — pseudomonas and aeromonas. Both pseudomonas and aeromonas are naturally occurring and ubiquitous in pond and tank water. They are always there, and your fish are always exposed to them. You can never rid an aquaculture system of them completely.

When discussing bacterial infections, I often liken pseudomonas and aeromonas to common viruses in humans. As a living, breathing being moving about the world, you are regularly exposed to viruses. When you're healthy, with a fully functioning immune system, you don't get sick. But when your health decreases, whether it's through physical or environmental stress, malnutrition or any of a number of other stressors, your immune system weakens, and the likelihood of you becoming sick increases.

Similarly, koi are exposed to aeromonas and pseudomonas all the time. When the fish are healthy and their immune systems are fully functioning, they don't become infected. But, if their immune systems are compromised in some manner, their natural resistance to the bacteria can start to fail, which often leads to infection.

There are many different stressors that can compromise or weaken a koi's immune system and increase the likelihood that an infection will set in. Identifying, understanding and reducing or eliminating these stressors is key. Treating the infection in the fish without

eliminating or reducing the underlying cause will only result in recurring infections.

### Things to Look Out For

If your water quality is poor for an extended period of time, with parameters far outside the acceptable range for koi, this can stress your fish and lead to infection. Measuring water parameters, understanding what you're seeing and knowing how to bring them back to acceptable levels is key, not only in bacterial infection prevention, but also in the overall health of your fish.

Overcrowding or overstocking a tank or pond can also quickly lead to bacterial infection. Not only does it stress the fish, but overstocking a pond with more fish than the filtration is equipped to handle can also quickly get you into trouble with the quality of your water.

Like all living beings, koi require a balanced diet in proper quantities in order to remain healthy. If your fish are not getting the nutrients they need or not enough food in general, their health will decline, and bacterial infections may be just around the corner.

Unchecked parasite infections can also drain the resources available to a fish's immune system, weakening the immune-system function and increasing the likelihood of a secondary bacterial infection. Some parasites like anchor worms, fish lice and flukes can even punch tiny, microscopic holes into the protective slime coat on a fish, presenting an opportunity for the harmful bacteria to bypass the protective layer and begin eating away at the tissue underneath.



Although removed from the market, it is still possible to make your own medicated food (left). Proper filter cleaning techniques (right) are an important part of bacterial issue prevention.

### Control Your Levels

The levels of pseudomonas and aeromonas present in a pond or tank can vary greatly. Just because it's naturally occurring doesn't mean that it has to exist at a high level. Taking the proper steps to keep the bacteria levels in check will go a long way toward preventing

well. Your mechanical filtration removes solid waste from the water column and traps it in the filter. The filter must be cleaned and flushed periodically in order to remove the solid waste and send it down the drain. Infrequent cleaning of the filter means that solid waste cannot be trapped by the filter media, resulting

you about bacterial infections and how to treat them. Here are some options for treatment. But remember, treating is only half the battle. If you don't combine treatment with reduction or elimination of the initial cause of the bacterial infec-

### Key Tip: Prevention vs. Treatment

As a retailer with limited tank space and a short selling season, you may want to consider removing infected fish immediately and focusing your efforts on preventing problems in your still-healthy stock, as opposed to devoting time and tank space attempting to treat and cure fish that are already sick.

infection.

Bacteria feed off the solid waste excreted by fish, and too much solid waste in the water column will result in a bacteria load that is too high to be considered healthy. A common mistake comes from hanging several nets in a tank and keeping fish in the nets with nothing swimming in the tank underneath. The solid waste from the fish in the nets sinks to the bottom of the tank and collects there. This is a breeding ground for harmful bacteria, but it is easily solved by keeping a few larger fish under the nets to keep the waste stirred up and headed down the drain and into your filter, where it belongs.

Properly cleaning your filters is key as

in more waste in the water. An improper cleaning technique can result in solid waste from the filter getting sent back into your tanks, where it's harmful and stressful to the fish, instead of down the drain, where it belongs.

Water changes are also a valuable tool in the fight against bacterial infections. Regular and frequent water changes can help to control and lessen the bacteria load in a heavily stocked system. At times, we water change 10 to 20 percent per day in a heavily stocked system.

### Solve the Problem

So, you've got bacterial infections in your fish, or you have a customer asking



tions, they will only come back.

Ultraviolet (or UV) filters use ultraviolet rays to control the growth of organic bodies in your system water. UV filters will not have any curative effect and will not solely prevent bacterial infections from occurring, but they will help to reduce the bacteria population in your water and should be considered a part of your long-term solution.

Medicated koi food was recently removed from the U.S. retail market by the FDA in the fight against overuse of antibiotics. However, it is still possible in some instances to obtain a veterinarian prescription for antibiotics that can

be top-dressed onto pellet food and fed to fish with bacterial infections.

While medicated food can heal fish that have just started to show minor symptoms of infection, it will not heal fish with advanced infections. The real advantage of medicated food comes in the form of prevention. We have regularly used medicated food in a population of fish where a small percentage showed signs of bacterial infection, and we felt that the majority of the population were not sellable because of their high likelihood of developing infections. A two-week application of medicated food ceased any further infections from developing. After a brief observation period, the fish can be deemed sellable once again.

It is also possible to inject fish with antibiotics in order to halt a bacterial infection. The most common antibiotic used for injection is Baytril, which also requires a prescription. While injection is the most effective method for treating a bacterial infection, it is also the most

difficult and expensive, and it is generally reserved only for high-value (whether in money or sentimentality) fish.

Tricide-Neo is an antibiotic dip developed at the University of Georgia for prevention and treatment of ulcers in koi. Although I do not have personal experience with Tricide-Neo, I have heard accounts from enough hobbyists to believe in its effectiveness in the treatment of bacterial infections.

When possible, heating pond or tank water up to 78 to 82 degrees can be beneficial in the fight against bacterial infections. Not only are bacteria less active at these temperatures, but the warm water also gives the koi an immune-system boost. Warm water alone will not prevent or heal bacterial infections, but it can be a helpful tool in combination with other treatment options, particularly antibiotics.

While ulcers are unsightly and frustrating to deal with, they don't have to have a major negative impact on your short koi-selling window each year. Take steps

to maintain a healthy environment and reduce stress in your stock. Be prepared to treat any issues that do happen to arise, and you can maintain steady fish sales while engendering trust and confidence in your fish customers. ☛

### About the Author

**Casey LeFever** is co-owner of NextDayKoi.com and part of the third-generation future ownership of Blue Ridge Koi and Goldfish, the largest and longest-running koi farm in the United States. He was brought home from the hospital and weighed in a feeder goldfish bucket at just a few days old, and he has been around fish ever since.



third-generation future ownership of Blue Ridge Koi and Goldfish, the largest and longest-running koi farm in the United States. He was brought home



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## | Pondemonium Recap |

# An Attitude of Gratitude

### A look back at Aquascape's Pondemonium 2018

by **Jennifer Zuri,**  
Aquascape

This year, Aquascape celebrated the 20th anniversary of Pondemonium, the water feature industry's premier training and networking event. Hundreds of contractors, retailers and distributors were in attendance from Aug. 22 – 26, 2018 in St. Charles, Illinois, to participate in hands-on train-

ing sessions and workshop classrooms. "An Attitude of Gratitude" was the theme for this year's special anniversary event.

#### Daily Summary

Pondemonium opened Wednesday with a first-time Digital Marketing Summit that focused on bringing water features to life through video, vlogging and digital marketing. Several high-profile vloggers were in attendance to provide expertise,

including Stanley Genadek of Dirt Monkey University.

Hands-on training events were the focus Thursday, with a custom decorative fountain water feature installed by Certified Aquascape Contractors at the Q Center training facility in St. Charles. Foremen and those new to pond building attended a morning classroom session followed by a hands-on waterfall-building contest in the afternoon to apply the skills they learned.

Throughout the day, "deep-dive" sessions covering topics from accounting to operations to marketing were provided by a variety of Aquascape experts.

Early-morning educational and networking discussions known as Cup of Coffee roundtables started the day on both Friday and Saturday. A variety of topics were discussed by industry experts from around the world. Presentations and discussions included water feature construction, marketing techniques, human resource practices, accounting principles and more. Many sessions were moderated by Certified

Aquascape Contractors who are experts in their featured topic.

Friday morning, Greg Wittstock, owner and CEO of Aquascape, presented his annual inspirational Pondemonium keynote address to a packed room of water feature professionals. Classroom sessions followed the keynote and focused on construction, business operations, retail and marketing topics. The evening came to a close with a special Casino Night fund-raiser to benefit the Aquascape Foundation.

Saturday's events included a local pond tour exploring a variety of water feature

applications in residential settings. More classroom workshops were available for those not attending the tour. The afternoon featured a panel discussion of former recipients of the Aquascape Water Feature Artist of the Year award. The Pondemonium Blow-Out Bash, complete with live music, food and human foosball, brought the annual event to a close.

Pondemonium 2019 is slated for Aug. 21 – 25 in St. Charles, Illinois. For information on Pondemonium and Aquascape training provided throughout the year, visit [www.aquascape.com](http://www.aquascape.com). ☪



## This Year's Winners

Awards were presented throughout Pondemonium, with Aquascape Top 20 contractors and Top 20 retailers receiving "Top Frogs." Four individuals also received the following coveted annual specialty awards:

Certified Aquascape Contractor of the Year – Chris Tallarico of NJ Pond Guys LLC in Jackson, New Jersey. (top, left)

Businessman of the Year – Jaak Harju of Atlantis Water Gardens in Denville, New Jersey. (top, right)

Artist of the Year – Dan Harp of Mark The Pond Guy in Sumner, Washington. (bottom, right)

Conservationist of the Year – David and Kristen Austin of Waterpaw in Boyne City, Michigan. (bottom, left)

# (Still) Be Still, My Pond

Part two of crafting that 'still-pond' look

by Kent Wallace,  
Living Water Solutions

Welcome back to the second half of the story of Chad's dream pond. As I mentioned in the previous article, which appeared in the September/October 2018 issue, Chad's formal, "still" pond is mostly gravity flow with only the upflow sand and gravel filter operated with a traditional pump. I was attempting to create the most state-of-the-art pond possible.

**SERIES:**  
Best Pond Practices

*This is an installment of an ongoing, multi-part series. Be sure to watch for further installments in future issues!*

"State-of-the-art" to me means using the least amount of energy possible for the amount of work done and creating a passively managed system with as few complicated pieces of equipment as possible. This is one of the reasons I have been

using my version of the radial separator concept for prefiltration. A radial separator is an old-school settlement tank with a twist. Traditionally the radial separator was used in aquaculture, where a constant water level can be managed. I advanced the concept with my floating circular weirs, so a fluctuating water level is possible. A 500-gallon tank can flow up to 20,000 gallons per hour with a water level fluctuation of 6 to 7 inches.

**Plumbing the Tank**

To start, a line was marked along the wall behind the filtration area to establish the finished water line. In gravity-flow systems, this is a critical step, and everything gets measured from that mark forward. The hole for the filter tanks was excavated,

with a slab poured below ground level to support the airlift bioreactor tanks that were to be buried. A surface slab was formed and poured for the upflow sand and gravel filter placement. The 6-foot-deep, 500-gallon prefilter tank was set in a concrete slurry to conform to the shape of the tank bottom. The total weight of all four tanks when full is more than 11,000 pounds, so the slabs for each of these is 6 inches thick and reinforced with rebar. Once the tanks are set, the plumbing can begin.

The plumbing for a large gravity-flow system may appear challenging, but there is a benefit to a carefully laid-out system. The object is to layer all the piping in one main trench as efficiently as possible. This consists of four 4-inch lines for the bottom drains, four 3-inch lines for the vertical returns, six 1 1/2-inch return lines, one additional 4-inch line from the sand and gravel filter to the upper pool, three 2-inch lines from the skimmers and mid-water drain, four 3/4-inch lines for the aerated bottom drains, two 3/4-inch auto-fill lines and one 3-inch drainage line connected to each filter in a row. Once those are installed, the 3/4-inch lines for the airlifts and the aerated bioreactors along with the lines for the water-flushing system for each filter are laid on top. It's a great feeling when you see all that piping being covered over with dirt.

Almost the entire system is designed without valves. The 4-inch drain lines into the radial separator use stand pipes inside the center chamber of the prefilter to shut off each individual drain, and the outflow from the filters is regulated by pipe size to balance the lines. The three 2-inch lines

Opposite page: The finished pond (top) looks just like Damon's original drawing. The piping (bottom, left) was layered in the trench. The finished polyurea (bottom, right) is shown with Laticrete applied to the top 6 inches for tile.





The upper pool (top) has pillars for the Foo Dogs and laticrete on the top 6 inches of polyurea. When I say, "No hard 90s" (left), I mean it!! The fish are in (right), and aerators are working.

from the skimmers and mid-water drain can each have a ball valve to balance the flow if needed. For large drain-downs, the skimmers can be shut down, and the water can be drawn all the way down to the mid-water intake. The only other valves are the 2-inch outlet ports for cleaning each filter. Each filter is tied into a single 3-inch line that goes around the house and ties into the sewer cleanout for draining.

The air pump station is located inside the existing pool filter area across from the filtration. This made the electrical hookup easier, but there was still a set of eight 3/4-inch air lines that needed to be organized — one for each bottom drain aerator, two for the airlifts and two for the aerated biofilters for the six 80-lpm Medo air pumps. Two air pumps are for the four bottom drains set on timers. Two pumps for the two airlifts and two more for the pair of bioreactors make up the other four. Using the same air pump for each device makes the system more reliable. If a pump fails, you can decide whether to swap it for one of the other pumps or leave it alone

until a new pump arrives, depending on its designated use. For instance, the pumps for the airlifts are very important, whereas the pumps for the bottom drain aerators are less important.

### Shooting the Shell

The shotcrete crew was there until dark finishing up the basic form. A week later, the Bond-Kote finish was applied. When using polyurea as the sealing surface, concrete needs at least a 28-day standard cure time before application. The surface needs to be parged smoothly, with all the roughness removed. Coating the surface with a mortar or cement mix doesn't work as well as Bond-Kote. Polyurea has a reaction to the moisture in concrete and can pinhole during the first coat. This is dealt with one pinhole at a time, so preventing pinholes from the beginning is essential. The chemical makeup of Bond-Kote has something in it that polyurea likes, rarely creating pinholes. This makes the process go more quickly and creates a much better

finish. The use of Bond-Kote speeds up the whole process. The polyurea can be applied as soon as the Bond-Kote is cured. This can often be the same day or the following day. Bond-Kote seals the chemical moisture in the concrete away from the polyurea. Paul Parszik from Artisan Aquatics applied the polyurea and was there two weeks after the shotcrete shell was formed.

Laguna Pools was to apply a 6-inch upper tile edge to the surface of the polyurea on the inside perimeter below the top cap. Not much of anything sticks to polyurea once it's cured, so we coated the top 6 inches of polyurea with Laticrete 9235. Laticrete 9235 is a waterproofing sealant on its own, but it's made specifically for tile and mastic installation. The Laticrete substitutes for the stainless-steel lath normally applied to polyurea as a mechanical attachment. The Laticrete was applied just a couple of hours after the polyurea was finished, which allowed them to bond together permanently. It's a simple formula: polyurea likes

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"One of these things is not like the other."

Laticrete, and Laticrete likes tile mastic.

### Final Assembly

While Laguna worked on the finishing touches for the pond, pool and barbecue, we assembled the components of the filters and the air pump station. Chad and I decided to add a charcoal filter to the incoming water line so he didn't have to constantly add dechlorinator with each water change. There are two lines for filling the pond. The first is the auto-fill, and the second is a line that goes directly into the pond. This makes filling faster than waiting for the auto-fill, and I had it placed just below the surface with a schedule-80, 45-degree fitting aimed

toward the surface. You know when it's on, because it violently disturbs the surface when operating. Along with the auto-fill lines, the charcoal filter serves the power flushing lines for the filters and has a small valve at the end of the manifold as a test sample port to see when the canister needs changing.

The last touch was craning in the Foo Dogs. Luckily, the lot behind the pond was vacant at the time, allowing crane access. With the Foo Dogs installed, we could start filling the pond with water. The pond ended up at a volume of 16,400 gallons when fully operational. Chad was anxious to move his fish, but with more than 15 large koi, we wanted to "kick" the

system first. I added PONDdigger beneficial starter bacteria and 1 gallon of ammonia to the pond, which shot the ammonia reading off the scale. Now we had to be patient. After about a week, we started to see nitrites. A few days later, we started to see some nitrates. Chad had contacted Shawn McHenry of Mystic Koi, who agreed to fly up and help move his fish the following weekend. During that second week, the ammonia readings started to go down drastically, as the nitrites and nitrates climbed. A couple of days before Shawn arrived, the ammonia went to zero, and the nitrites were low, but the nitrates were high. On the last day before Shawn's arrival, the nitrates went to zero, eliminating the need for another large water change. The daytime temperatures are at their highest in Las Vegas during August, so they moved the fish in the middle of the night, when the temperature was slightly cooler.

This was a fun project, because we made it look exactly like the original drawing Damon Lang of Green Planet Landscaping created, and I was offered the opportunity to build the functional part of the system as I saw fit. This was one of those projects that makes you feel thankful for the opportunity. ☺

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### About the Author

#### Kent Wallace

was born and raised in Las Vegas. Kent spent most of his adult life in the automobile industry at independent shops and dealerships, including his own shop as a racecar fabricator at age 24. Then, in 2001, a neighbor asked Kent if he could build her a koi pond like the one Kent's father had.

From that point on, pond building became his new passion. That first pond he built was submitted to Better Homes & Gardens magazine and won Best Courtyard Nationwide in their special-interest publication.

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# Japanese Garden Design

A journey through the  
modern, western Japanese Garden



**by Jerome Skuba,**

Zoen Sekkei-Sha & Associates

**T**he beauty of water in the wild is unparalleled. Creators of Japanese gardens attempt to capture the brilliance of water and consider how it will ultimately resonate with the viewer.

The Japanese refer to their gardens as Tei-en, which translates as both “wild nature” and “controlled nature,” two opposing characteristics. It is in the exquisite balance of these two fundamental qualities that the Japanese garden finds a universal voice. The early gardens of Japan were not created for aesthetic reasons; instead, they were sacred places meant for prayers and rituals. However, they did contain powerful aesthetic components that would be discovered and brought to the forefront in the future creation of gardens.

My fascination was with an aesthetic that is very close to my own understanding of Tei-en, with Earth serving as the sculpture where the natural world and the sparing hand of human presence mutually create a contemplative environment. Tei-en combined with niwa, the literal translation of “garden,” forms the basic framework for stone, water and plants, the three ingredients for designing a western Japanese garden.

## History of Japanese Gardens

Moving through the Japanese garden is a journey, which is also the destination. In a land where space is precious, the art of landscaping and garden design has been taken to very high limits of expression, with distinct formations that engage an aesthetic and philosophy that are completely unique from Western traditions. Rocks and ponds are two of the most fundamental elements of the garden whose use can be traced back to prehistoric times. They are derived from “sacred spaces,” which predate the first gardens by at least 1,000 years.

From the grandeur of gardens seen in Han (China), Japanese designers scaled the gardens to fit the topographical and special conditions of Japan. The gardens are smaller, with more concentrated effects that are reduced to the essence of nature. The fundamental relationships and intricacies that exist among water, rocks, trees and sky express themselves in the form of lakes, ponds, rivers, streams and waterfalls.

Early Japanese garden builders also seemed, in my opinion, to be intuitively attuned to the variety of archetypes of the natural landscape. The archetypes are the source images, some say, that reside in our subconscious mind. The well-

A waterfall cascades into a calm pool, as viewed from a stone bridge. (Anderson Japanese Gardens, Rockford, Illinois.)



Photo by Evan Gelles

**The reflectivity of a still surface draws into view the sky and surrounding landscape, concentric circles from raindrops, wind ripples and small waves, emphasizing the many moods that a pond can present.**

known garden writer Julie Moir Messervy has identified seven archetypes that, in some way, shape or form, constitute all garden designs and the feelings associated with them, such as the sea (immersing), the cave (nestling), the harbor or cove (embracing), the promontory (extending), the island (separating), the mountains (transforming) and the sky (transcending).

The abundance of water flowing from mountain streams provided clean, clear water for use in ponds. The sites specifically chosen for ponds allow water to flow through, flushing out stagnant contaminants — a cleansing action without using any mechanical means.

This technology utilizes gravity, only knowing that water always flows down hill. Water levels were efficiently controlled through a system of dams and weirs. The garden builders drew upon the technology of wet rice culture, which utilizes the intricate systems of channels for directing water from one growing terrace to another, flowing down the mountain slope.

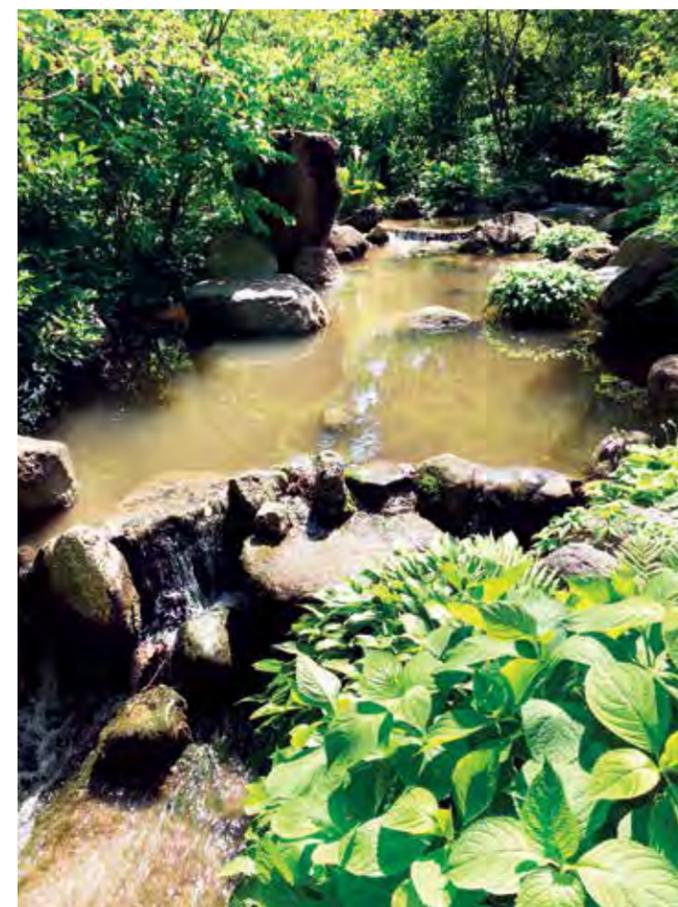
**Movement vs. Stillness**

The reflectivity of a still surface draws into view the sky and surrounding landscape, concentric circles from raindrops, wind ripples and small waves, emphasizing the many moods that a pond can present. All the possible moods of weather effects on water are highly prized when seen from a small pavilion or residence, sheltered in nature, but not of nature. This tension between the natural and human-defined elements seeks to improve the quality of life of the beholder.

Movement and stillness are essential aspects of nature. Out of these two elements, great landscapes were created, tracing back to streams with tributaries, and finally to a mountain spring source. This perspective offers a rich spectrum of design options to scale down into a garden setting.

Such ideas about nature were imported from Han (China) and Korea in a process known as acculturation, where understanding and reinterpretations are tailored to fit the context of the old culture within they are now placed. This gives the indigenous elements of culture

Opposite page: An artfully composed stone arrangement of a pond shoreline (Como Park, Saint Paul, Minnesota). Top: A very refined, small residential garden with water basin. Right: An upstream view of a still-water pool created by a dammed stream (Anderson Japanese Gardens).





new meaning. Imported ideas found a resonant familiarity with the early Japanese garden builders' ancient animistic perceptions that natural objects — rocks, ponds and islands — are not inanimate, but sacred spirits. Animism is a belief where everything is thought to be alive and thus deeply respected. Perhaps they were some of the first proto-ecologists?

The tradition of the Japanese garden as a seamless progression of accumulated ideas formed over the course of 1,000 years has assumed a refined, understated simplicity, with extraordinary attention to detail and composition. Every part is vital for the creation as a whole, with careful placement of the parts that make up the entirety. Every archetype found in nature can be found somewhere in a Japanese garden.

### Japanese Garden Design

I start the design process by making rough concept sketches or 1:1 scale

maquettes to flesh out what can and needs to be done. I then roughly quantify what materials and plants will be used and estimate a cost range from the high to low end. This helps determine the size of the garden desired and what kind of resources the client is willing to devote to a project, ultimately giving me direction to proceed.

A large part of the plan is to have a fully disclosed idea of the long-term costs of the garden after it is built. The costs of maintaining a high-quality Japanese garden will exceed the cost of building the garden many times over. Knowing this on the front end determines the affordability scaling and the customer's commitment to follow through with appropriate maintenance over the years to come. For maintaining a high-quality Japanese garden can be like maintaining a high-end golf course, so proceed with caution!

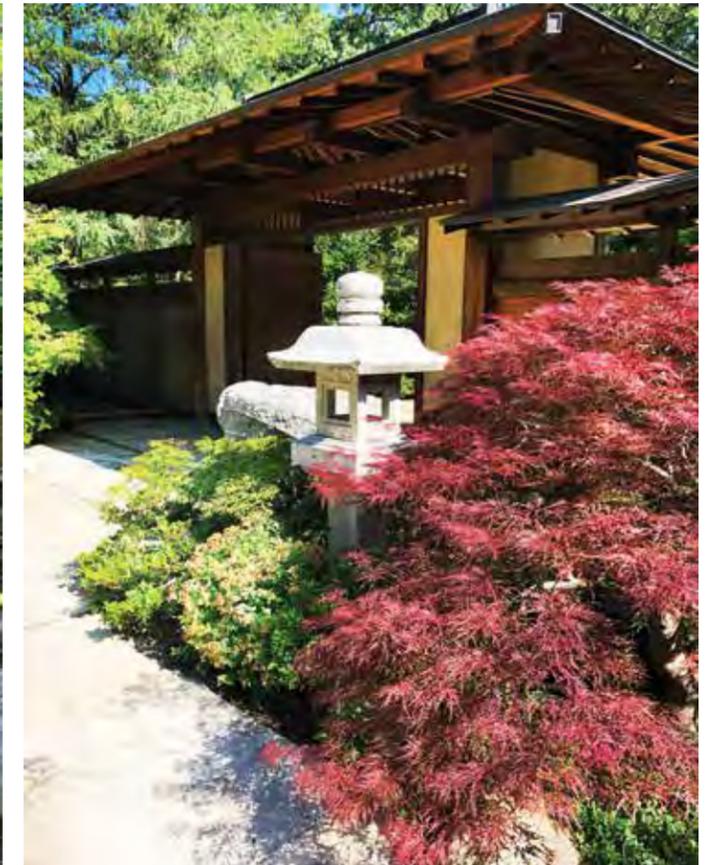
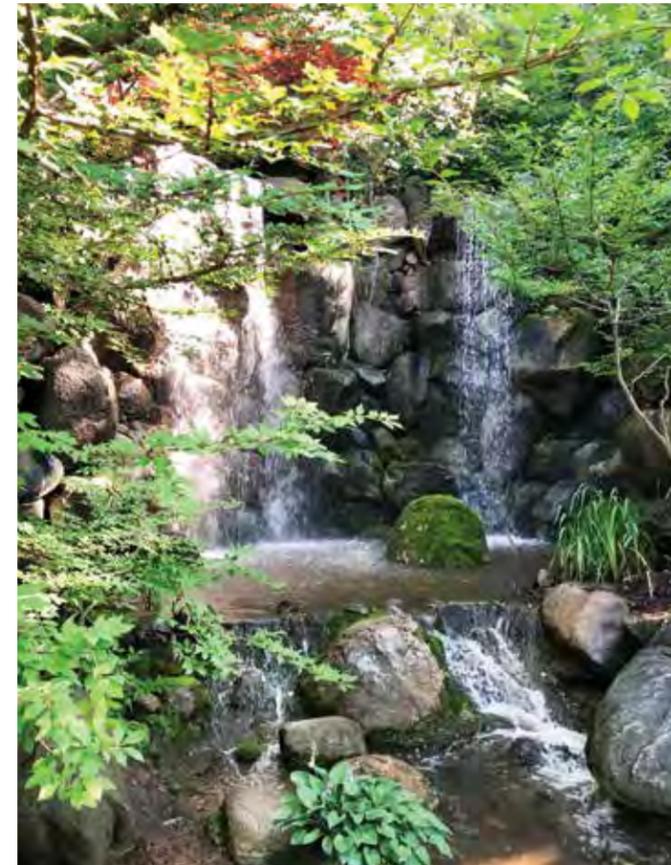
Occasionally I encounter clients with champagne taste and a beer budget.

Building the garden in phases that are broken down into affordable annual amounts, we can build a garden over a period of several years. Longer periods of construction in many cases can allow a customer to evolve into a master plan. This approach requires a great amount of patience.

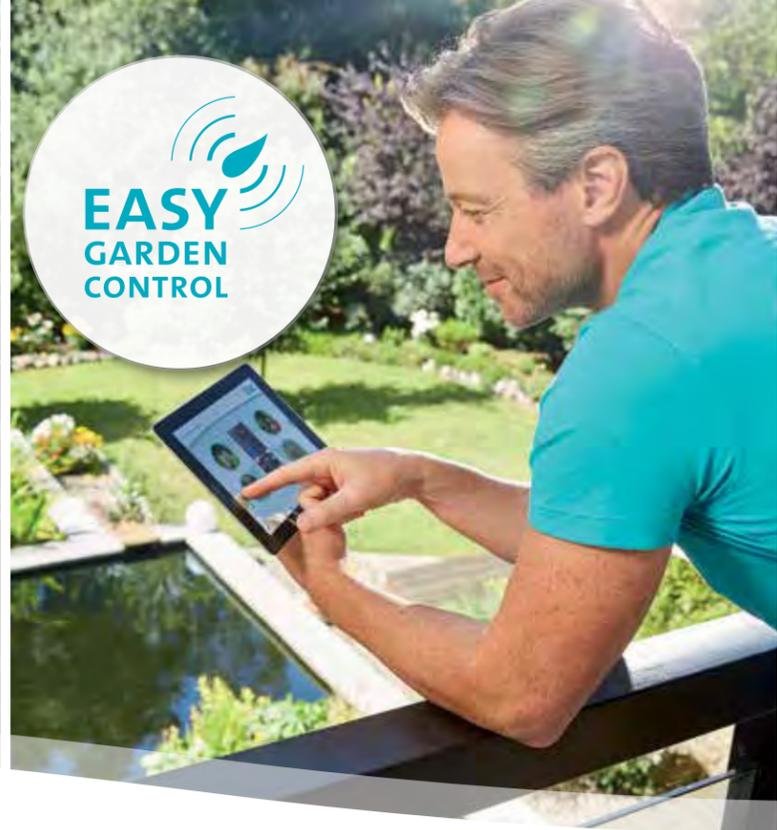
I take a sculptural approach in creating a garden as it is being built. Remaining open-ended allows for intuitive decisions that are subject to change as construction progresses. This is how an artist brings life to the design of the garden — working up from the details rather than adhering to a master plan. The final plan that ends up on paper ends up being an as-built plan that is completely accurate.

### Engineering Simplicity

Building a Japanese garden is an art, a craft and an engineering project. The garden designer must be fluent in all



A Chrysanthemum flower (opposite page) inspired a stylized water basin (Minnesota Landscape Arboretum). The distant waterfall (above, left) is seen from the pathway and bridge. A Japanese Maple grows on the far side of the garden (Anderson Japanese Gardens).



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the necessary skills to masterfully make everything work in concert and last at least a generation. Skilled trades are also vital for building beyond the scope of the individual garden designer. The designer functions as a project manager, too, as leader of the team's progression toward completion.

Assembling high-quality rock often takes time and a keen eye for picking and choosing from a quarry or gravel pit. Unique, beautiful stones need to be avoided, since they call undue attention to themselves. Accessorizing the garden with cultural artifacts also requires a very discriminating eye so that the garden is not over-

loaded with water basins, stone lanterns, pagodas or statuary of any kind. Less is more in this case. Otherwise, one destroys the simplicity that is vital for a tranquil space.

Plantings are kept to a fairly limited palette of green leaf Japanese maples, flowering cherry, pines, cypresses, azaleas, magnolias, rhododendrons, boxwoods, Japanese yews, ground covers, ferns and several species of mosses. Choosing dwarf plants for the garden only creates a "munchkin garden," where the only thing missing is a yellow brick road.

Japanese gardens are not very floriferous. The only blossoms tolerated are incidental to the plants



A pine island (top) connected by two stone bridges (Como Park). A gentle trickle of water (right) pours into a rustic water basin.



This view encompasses all the essence of a Japanese-style garden (Como Park). Photo by Magdalena Wells

themselves and bloom in their own time. The Japanese love flowers but avoid introducing too much color, since the color distracts from the rest of the garden.

The majority of larger gardens are located in the public domain — botanical gardens, arboretums, public parks, private estates, art museums, show gardens at hotels and elegant inns, corporate and foundations grounds, Buddhist Temple compounds and those considered part of the Japanese Imperial House Holdings. Many gardens are designated as important cultural heritage properties by the Japanese government.

### Sukiya Gardens

The majority of gardens are residential and thus smaller in size. There are thousands of these throughout Japan, rural and urban,

each as unique and as simple as can be imagined. Often these gardens are crafted by a homeowner with occasional guidance from professional gardeners. These small gardens are part of Sukiya-styled architecture, which is Japan's primary form of residential architecture from the 17th century to present day.

Sukiya living environments, or the combination of a home, its interior spaces and the surrounding garden, are meant to be viewed from inside the building. At the center of this unified property is a graceful, high-quality home that avoids clutter and ostentation. It is visually integrated with exterior spaces. The hallmarks include skilled craftsmanship, the ample use of natural materials, light, elegant proportions and respect for the human scale. The overall mood is one of quiet elegance surrounded by natural beauty, bring-

ing quality to life.

My design practice concentrates on Sukiya gardens, which can be surprisingly very affordable for many homeowners.

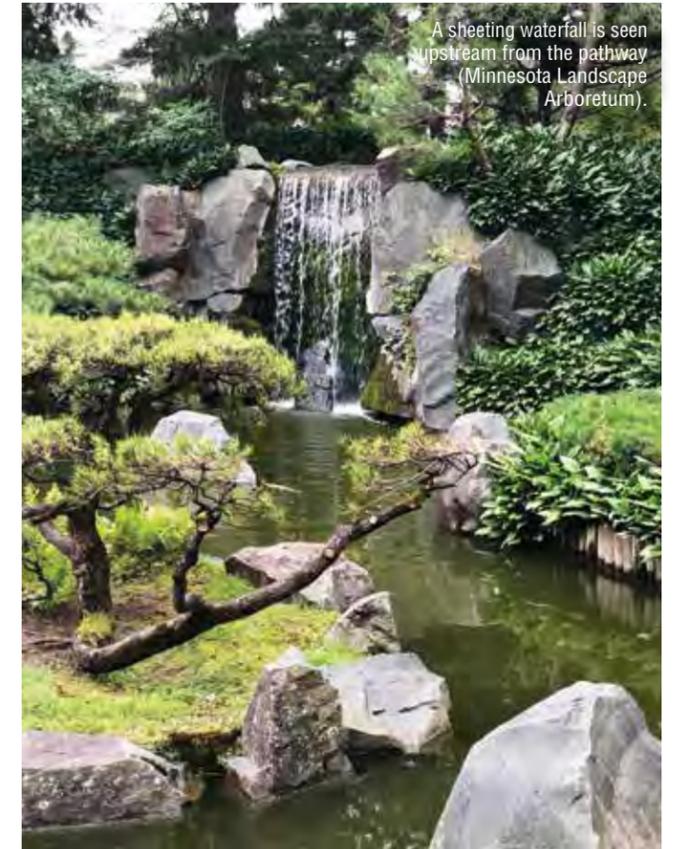
### There Is a Season

Japanese gardens are created with all four seasons in mind. Each season displays an inherent uniqueness. Spring offers the emerging and awakening delights of running waters, melted ice in ponds, breaking buds and sprouting leaves, blossoming ephemerals and early flowering of the cherry trees. It reminds everyone of the life cycle, always moving on to the next season. Summer brings out the full character of trees and shrubs, followed by autumn and the color changes of leaves in preparation for winter's dormancy.

Pond sizes were designed in a way to maintain even water temperatures by limiting full sun exposure to no more than four to six hours a day.

Though we understand and appreciate the four seasons of the year, there is something very unique acknowledged in Japan that is based on its agricultural roots. In ancient times, the Japanese divided their year into 24 periods based on classical Chinese sources. The year comes to life in the vividly named subdivisions of the Japanese calendar.

There are actually 72 micro-seasons, each lasting approximately five days. Each is also linked with an observation made centuries ago and correlated with subtle changes as each year progresses. This practice



A sheeting waterfall is seen upstream from the pathway (Minnesota Landscape Arboretum).

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The koi fish, always seeking something to eat, continually greet adults and children (Anderson Japanese Gardens).

was likely started by farmers who accumulated observations made over time. Observations were made, for example, where a certain plant bloomed, when certain birds arrived, when the rice was to be planted, when fruits were to be harvested, when a specific butterfly emerged from its cocoon and so forth. In their present form, they offer a poetic journey through the Japanese year, where land awakens and blooms with life and activity before returning to slumber.

As water shapers, we study the ways of water and ponds. This is vital to understanding how water works to resonate with the garden viewer. It took the Japanese garden builders 1,000 years of trial and error, a skill honed through acute observations made in the wilderness — not in a classroom or book. It must be experienced firsthand to see and understand the ways of water. It is important to remember that the language of the garden is nature.

We struggle and strive over a lifetime to master the skills of pond building, to grasp the essence of nature's lessons and

apply those understandings in creating magnificent waterscapes.

As the saying goes, and as we water shapers need to remember, "Do not seek to follow in the footsteps of the Masters. Seek what they sought." ☞

### About the Author

For more than 50 years, **Jerome Skuba** of Zoen Sekkei-Sha & Associates has been on an exploratory path, working as an ornamental horticulturist, art school professor, industrial designer, builder and garden designer. Jerome's gardens have been featured in Architectural Digest magazine, and he is a contributor to articles in Sukiya Living: The Journal of Japanese Gardening.



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Demi Fortuna (Atlantic Water Gardens) explains the proper installation methods of Pump Vaults to increase pump life. Ron Hatt (Rep Masters), Andrew Brown (IMG) and Bryan Blackford (CPS Distributors) pictured.



## 2018 Atlantic Professional Conference

Waterscape specialists convene in Cleveland

by **Lora Lee Gelles,**  
POND Trade magazine

Ahh, my first Atlantic Professional Conference! I would call this one short, but sweet. It started on a Wednesday, and unfortunately, I missed the business coaching with Yolanda Ortiz of Corazon Business Coaching. The buzz among Atlantic contractors was that her team-building exercise on how to effectively communicate and how to plan for long-term goals was highly informative.

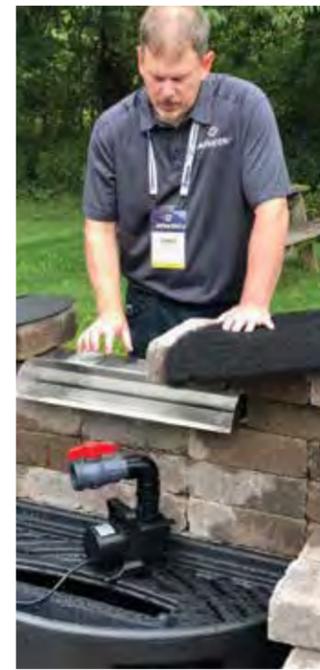
Sorry to have missed all that great information! The hospitality room was open early, and what better place to sit and relax and watch a room full of contractors

not only enjoy themselves, but also have conversations about pond-building experiences, problems, successes, and funny stories. It's great to bond with like-minded people, and we all know there are so many fascinating people in the pond-building industry. The day was topped off with a delicious dinner at the Pine Lake Trout Club.

On Thursday, we got down to business. We started off with a presentation about Atlantic's product systems, and specifically how fountain, formal spillway, pond-free, water garden and lighting products combine and interchange within each system to create numerous options and greatly simplify installs. Next up was a rollout of Atlantic's new products, and they've



The Atlantic Water Gardens second annual Professional Conference was held Sept. 5-6 in Cleveland, Ohio.



Heath Webb (left) and Shane Hemphill (right).

## 2018 Contractors of the Year

Congratulations to **Shane Hemphill** and **Heath Webb** of **Art of the Yard**, the 2018 Atlantic Professional Contractors of the Year! Shane and Heath were honored at the Second Annual Atlantic Professional Conference September 5-6, 2018 in Cleveland, Ohio. Serving Denver, Colorado, and the surrounding communities, Shane and Heath have 30 years of combined experience transforming their customers' yards into places they never want to leave. They deliver the highest quality to their customers in everything they do, from new water features to maintenance plans and everything in between. Shane and Heath don't have time to become complacent in what they do. They are always pushing the envelope by trying new products, providing top-notch customer service and never shying away from a tough job. They are very active on social media, showing off their beautiful work and assisting others in the APC Facebook group.

Atlantic is proud to present our highest award to individuals who are more than deserving of recognition for their contribution to the industry. Shane and Heath received the accolade from previous APC of the Year Gerard Touhey of Water Features by Gerard and Rex McCaskill of Pond Professors, Inc., the 2016 recipient, at the closing banquet at the Cleveland Aquarium and Windows on the River. Atlantic Water Gardens would like to extend our sincerest gratitude to all who attended the Second Annual Atlantic Professional Conference. With multiple hands-on and classroom presentations covering installation, product development, sales and marketing and maintenance plans, the event was hailed as an outstanding learning experience by all.

sure been busy. There will be new additions to the fountain and formal spillway systems, along with a total lighting redesign for next season. A class on adding dollars to the coffers with maintenance rounded out the morning.

In the afternoon, we bused over to the Atlantic headquarters, where we rotated through hands-on classes on plumbing design, pump tear-down, concealment of equipment, lighting in the hardscape, pond maintenance and construction tips.

We closed out the conference

with a night out at the Cleveland Aquarium, which was closed to the public for the night. Cocktails and hors d'oeuvres were served as attendees mingled, enjoying the private viewing of the facility. Before dinner was served, the Atlantic "Contractor of the Year" was announced. This year's recipients, Shane Hemphill and Heath Webb of Art of the Yard, received the award from the two previous winners, Gerard Touhey of Water Features by Gerard and Rex McCaskill of Pond Professors. Colorado-based Art of the Yard was





recognized for going above and beyond in professionalism and artistry. Back at the hospitality room, we wound down with late-night discussions and good-byes. Until next year! ☺



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# LOTUS LOWDOWN

Taking a deeper look at *Nelumbo nucifera*

by **Laura Bancroft**,  
Ten Mile Creek Nursery

Ten Mile Creek Nursery had long specialized in general landscape plants, Gulf Coast natives and annuals — just your ordinary South Alabama nursery striving to survive in an uncertain economy. But on a warm afternoon in October 2009, we had our first encounter with growing lotus. We all met under the big pole barn. The nursery owner, Bill Bancroft, his parents, Laura and Steve Bancroft, Dr. Ken Tilt from Auburn University and two representatives from a Dutch company were hoping to introduce America to the possibility of growing water plants — specifically the sacred lotus, *Nelumbo nucifera*, in pots, on the patio and in their yards.

From that point onward, there has been no turning back. People all over the world have become fascinated with this beautiful plant and the idea that they do not need a pond or even an especially big space to enjoy its breathtaking beauty and grace.

The lotus is a symbol of purity, wisdom and peace and is a treasured plant steeped in ancient history. Likenesses of lotus leaves, flowers and seeds have been found engraved on bronze pots excavated in China dating back to the 10th century B.C. (the Broken Pot of the Minister of Jin Dynasty) and is often seen in Egyptian hieroglyphics from the pyramids.

### The Lotus Effect

Delicate flowers in shades of red, pink, yellow and white are displayed on single stalks amid lush, round leaves of the deepest green, making the lotus one of the most spectacular plants in the aquatic environment. Their almost magical ability to roll away mud and dust allows them to present an ever-clean, fresh face for the world to see. This quality is known as “the lotus effect.” Their ability to self-regulate temperature within the flower allows them to survive even during the most stressful temperature extremes. Keeping the bud warm during cold nights and cool during hot days allows them to produce viable seeds.

Moreover, almost all parts of the lotus are edible at some point during the life cycle. Seeds and tubers are nutritious, high in anti-oxidants and delicious. Petals and green seedpods are used to make tea. Lotus have historically provided the treatment and cure for many ailments, and this is now being confirmed by scientific research.

### Choose Wisely

Lotus do not have a complicated list of requirements that are necessary to provide luxuriant growth and beautiful flowers. They just need good soil, lots of direct sunlight, very warm temperatures, regular fertilization and enough standing water to keep it from drying out. Lotus will not grow well inside except in greenhouse conditions and temperatures. They will not grow inside on your windowsill in a climate-controlled environment. They require



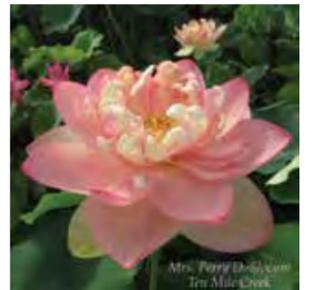
Red



White



Pink



Versicolor



Yellow

**CHOOSE A COLOR** Flower color is determined by comparing the “first day flower” to the Royal Horticultural Color Chart. Lotus are generally placed into one of these groups, but colors inside each group can vary widely.



‘Pink-a-licious’ is a new hybrid by Ten Mile Creek Nursery.



## WALL SPOUTS

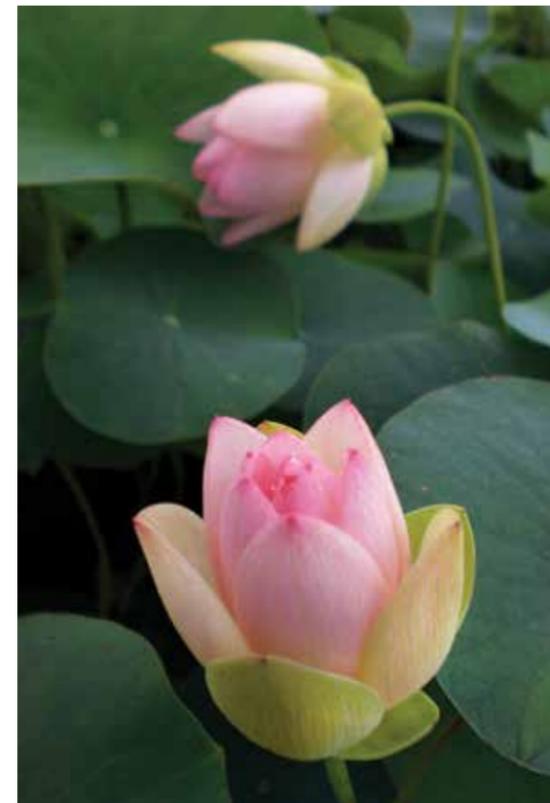
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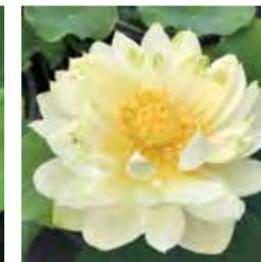


The first day flower (top) of 'Decorated Lantern' is pink. 'Pretty Flower' (bottom) shows beautiful draping and multiple colors.

### Flower Types



Duplicate



Semi-double



Single



Thousand Petal



Double

five to seven hours of direct sunlight every day in order to thrive. They are quite easy to grow outside and will flourish almost everywhere in the United States.

There are two types of *Nelumbo nucifera*: the hardy lotus, which are cyclical and go dormant in the winter, and the tropical lotus, which do not go fully dormant and grow most successfully in humid, tropical and subtropical climates. Lotus come in many colors and sizes with different types of flowers, so take it a step at a time when selecting the right lotus for you.

When choosing a size, ask yourself, "How much room do I have? How big do I want my lotus to be?" Lotus can be found in many sizes, from tiny Exquisite of Bowl Lotus (also called micro lotus) between 6 and 8 inches tall, to small or dwarf lotus (1 to 2 feet tall), to medium lotus (2 to 4 feet tall), to large/tall lotus (giant plants standing more than 4 feet tall).

As far as flower types go, you have another menu of choices. Flowers of less than 25 petals are called single or few-petaled; plants with 25 to 50 petals are semi-double; and flowers of more than 50 petals are double or multi-petaled. Duplicate flowers have carpels that are petaloid, with no seeds produced. Thousand-petal lotus have a significantly higher petal count than double-flowered lotus, with no receptacle.

Pot selection depends on plant size and whether you plan to place your pot into a pond where a darker-color pot will not be as visible

through the water. They can be plastic, resin or glazed pots, as long as they are impermeable to water. Lotus prefer rounded pots with a wide surface area, shallow depth and no holes in the bottom of the pot. A growing lotus will coil around the bottom of the pot as it grows. If there are any holes in the bottom of the pot, your lotus will escape and begin filling up your pond.

For Exquisite of Bowl Lotus or micro lotus, the pot size can range from teacup size to 11 inches wide and 6 to 7 inches deep. The smaller varieties of micro lotus are easier to grow "pot-in-pot," placing the smaller pot inside a wider and slightly deeper pot to lessen the frequency of watering. The smaller pot can be removed for display at any time. Pots should vary based on plant size for bowl lotus (12 to 14 inches wide and 7 to 8 inches deep), small/dwarf lotus (14 to 18 inches wide and 8 to 10 inches deep), medium lotus (16 to 20 inches wide and 10 to 14 inches deep) and large/tall lotus (at least 18 inches wide and at least 12 inches deep).

Note that the size of a lotus cultivar is a genetic trait; however, their final height is greatly affected by climate and cultivation practices. Lotus pots should be harvested and replanted every two to three years to keep the pot from becoming overcrowded, which results in smaller leaves and fewer flowers.

### Planting Tips

Fill a pot half full of good topsoil



'Mankala pathum' grows exceptionally well in a 10-inch pot. (hybridized by Dr. Nopchai Chansilpa)

(sandy loam) without a lot of organic matter or woody particles that will float. Patrick Nutt, the famous curator of the aquatic plants at Longwood Gardens, is quoted as having said, "If it grows grass, it will grow waterlilies and lotus."

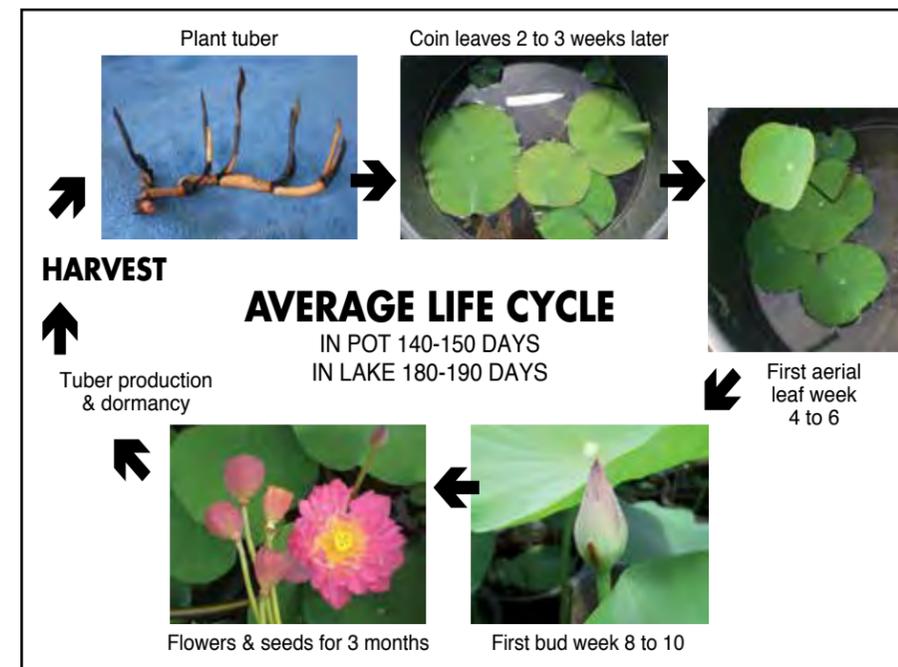
Add water to 1 inch above the soil.

four days, fill the pot to the top.

The average green growing cycle of a hardy lotus is approximately 140 to 150 days in a pot and slightly longer in earth-bottom ponds. When the plant is in full dormancy, there is no green vegetation above the water level. New tubers should

when the weather warms up and they are growing quickly. Begin to feed after an aerial leaf or three to five coin (floating) leaves are present, whichever happens first. Fertilize every three weeks using the schedule in the chart shown below. Notice that the dosage starts low, builds as the plant grows and then tapers as the growing season draws to an end. Proper fertilization will bring you dark green leaves and lots of flowers! Avoid fertilization after August 1.

Many people prefer to use a formula that is higher in phosphorus to encourage blooming. Waterlily World Tablets,



Container size	Application Dose in grams* every 3 weeks
3.5 Gal	2-3-5-5-3-2
5 Gal	3-5-8-8-5-3
10 Gal	5-8-12-12-8-5
15 Gal	8-12-20-20-12-8

\*A gram is usually equal to about a scant teaspoon.  
 Chart by Dr. Daike Tian, PhD, Horticulture.

Pondtabbs, Highland Rim and Landon Aquatic Fertilizer are all great products formulated especially for blooming aquatic plants. Follow the package instructions carefully.

### Things to Remember

Here are some great tips by Dr. Daike Tian on fertilizing lotus. Vigorous and super-large-sized lotus need more food than smaller ones or cultivars with fewer leaves. Large containers need more food, but don't calculate directly by multiplying. In other words, fertilizer should be much less than double in a 10-gallon container compared to a 5-gallon container.

The fertilization rate should increase as plants grow, and then should decrease a little bit beyond the growth peak. If your plants are not homogenous in size, especially in the early growth season, the application rate should be adjusted for safety. Decrease dosing for the weaker ones or those with fewer leaves. The application dose should also decrease



Lotus seeds are delicious, nutritious — and fun.

Well water is best, but tap water is fine. Make a slight indentation in the soil with your hand. Place the tuber into the indentation with the front-growing tip pointed toward the center of the pot. Be careful not to break the growing tips. Brush the soil over the top of the tuber to hold it in place, leaving the growing tips slightly above the top of the soil. Many people also prefer to leave the cut end of the tuber above ground. After three to

be planted in the spring when the chance of freezing temperatures has passed and the nights have consistently warmed up to at least 50 degrees. Planting earlier will simply use up the energy stored in the tuber and could even delay or prevent your lotus from growing well.

### How to Feed

Lotus are very heavy feeders, especially

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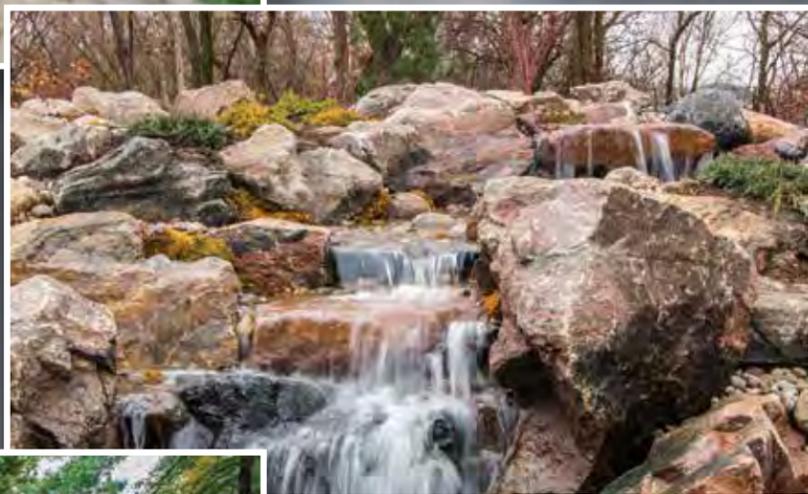
# Third annual Water Artisans of the Year contest



Photos will be judged by a panel of experts, and there will be a winner and honorable mention in each category.

The cost for each entry is \$25, and the money goes to **St. Jude's Children Hospital.**

Open to professional installers only.



## 5 CATEGORIES:

- Most naturalistic
- Best waterfall
- Best pondless
- Best water feature under \$15,000
- Best waterscape/hardscape combo

Submissions must be from November 1, 2017 – November 1, 2018.

Go to [www.pondtrademag.com/2018-water-artisans-of-the-year/](http://www.pondtrademag.com/2018-water-artisans-of-the-year/) for official rules and entry form.

▶ **Contest deadline is November 30, 2018.**

a little bit if the water level is very low. Young flower buds are especially prone to damage from high concentration levels. If the leaves have inter-vein yellowing, a toxic level of fertilizer is possible. If the whole young leaf is yellow, it is overdosed seriously, so dilute the solution with water and stop fertilization for couple of weeks.

An abundance of additional information about lotus is available in books and on the internet. There is no one way to plant and grow these spectacular plants. The truth of the matter is that they are really very easy to grow — so just buy one and try it! ☺

## About the Author



**Laura Bancroft** is the operational manager of Ten Mile Creek Nursery in Hartford, Alabama, which grows more than 300 varieties of exotic *Nelumbo nucifera* from around the world. Ten Mile Creek Nursery has sold thousands of potted lotus and dormant tubers and has recently begun to harvest thousands of pounds of lotus biomass every year for biochemical research and development companies who use it in health and beauty products. Lotus has revolutionized the nursery so much that it is now the only thing they grow. A graduate of Auburn University (B.S.) and the University of Alabama (M.A., SecEd, Biology), she is a retired teacher, wife, mother and happy grandmother to seven beautiful little Bancrofts!  
[www.tenmilecreeknursery.com](http://www.tenmilecreeknursery.com)

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**OASE Introduces Easy Garden Control (EGC) to the North American Market at the GIE Show**

After a successful year in Europe, the long-awaited Easy Garden Control (EGC) system will bring about a smart revolution in North America's water gardening industry. This new line of products will make its official debut at the Green Industry Expo (GIE) Show in Louisville, Kentucky, on October 17-19, 2018.

"We are very excited to bring the EGC system to the North American market," said Frayne McAtee, Director of Sales for the North American Division of OASE. "This is another leap forward in technology and products that makes it possible to monitor and control an outdoor oasis from anywhere in the world. This is just the beginning of many new and exciting products that we will be bringing to the market over the next several years. The EGC system is another step for us to fulfill our company goal of adding quality to the lives of our customers."

The heart of the OASE EGC product is the new Inscenio EGC Controller, which enables the control of up to 10 devices (EGC pumps, filters, lights). The revolutionary garden system facilitates convenient control and operation of the connected products from anywhere in the world using the OASE Cloud service.

In addition to centrally controlling EGC products, the system provides feedback concerning operation status, power consumption and overall performance diagnostics. This data can then be analyzed, formatted and stored on the OASE Cloud. If any technical or performance problems occur, the homeowner will receive a notification so they can resolve the issue immediately.

An investment in the OASE Easy Garden Control (EGC) system is an investment in the future, available in North America in early 2019.

For the full release, visit [www.oase-livingwater.com](http://www.oase-livingwater.com).

**EasyPro Pond Products Acquires Tierra Innovations**

EasyPro Pond Products is pleased to announce the acquisition of Tierra Innovations and the exclusive manufacturing rights for Black Waterfall Foam developed by Gary Wallace. For many years, Tierra Innovations has manufactured EasyPro Black Waterfall Foam as well as Rockin Foam to customers throughout North America.



Tierra Innovations' proprietary formula is the only foam product on the market that utilizes a carbon black formulation, which provides a non-fading color benefit ideal for water feature construction. It also bonds to most surfaces with minimal expansion, dries in 30 minutes and comes with a patented trigger system allowing the product to be dispensed from any angle. These are just some of the many exclusive benefits of Tierra Innovations foam.

EasyPro is excited to bring this innovative product into its family of pond and water feature products.

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



**OASE Living Water Acquires Atlantic Water Gardens**

OASE Living Water continues its strategy for growth and is pleased to announce the acquisition of U.S.-based Atlantic Water Gardens, a leading supplier of innovative outdoor water feature products and systems to the North American market. Headquartered in Germany, OASE is a global market leader in water gardening products, designed for the creation of tranquil, inviting outdoor oases.

"We have been collaborating with European landscapers for years and see an opportunity to build on this experience with professional contractors in the North American market," said Thorsten Muck, CEO of OASE. "We are excited about this expansion as it gives us the opportunity to work with the highly respected and talented team at Atlantic. Their product range and expertise will enhance our ability to serve an even broader range of customers worldwide."

Atlantic Water Gardens has a 30-year history of supplying professional-grade water feature products to landscape contractors through distribution channels in the United States, Canada and Mexico. As part of the OASE Group, Atlantic will gain access to the worldwide landscape construction market. Atlantic is the perfect fit to OASE's product portfolio and will enhance the range of products OASE sold worldwide.

"Joining forces with OASE will provide excellent channels to deliver our state-of-the-art water features to landscapers beyond North America. What's more, OASE's wide range of premium water gardening equipment is highly complementary to Atlantic's systems and projects," said Jeff Weemhoff, President of Atlantic Water Gardens. "We look forward to providing OASE's cutting edge, German-engineered technology to our clientele. Together, we will create the most innovative and comprehensive water gardening business in North America." Weemhoff added, "Whether the beginning hobbyist or the professional landscaper, by reaching out to a more diverse base of water garden enthusiasts, our goal is to transform and inspire the North American water gardening industry."

Learn more in the press section at [www.oase-livingwater.com](http://www.oase-livingwater.com) or at [blog.atlanticwatergardens.com](http://blog.atlanticwatergardens.com).



**Matala's Biosteps10**

Matala Expandable gravity filter maximizes filter media performance. The rugged Biosteps10 contains an amazing 200 square feet of surface area for beneficial bacteria growth.

Combined with a cross-flow design that traps and processes more debris at high flow rates, you get unparalleled mechanical and biological filtration for superior water quality.

Combine multiple units for large or heavily stocked koi ponds, or use Biosteps10 with optional UV Clarifier for improved water clarity. It features a universal barbed inlet (1, 1 1/4, 1 1/2 inch sizes) with 1 1/2-inch outlet. It measures 23 3/16 by 15 inches and is 20 3/16 inches high.

For ponds up to 2,700 gallons, it is a step-wise transition from mechanical filtration to high-efficiency biofiltration. Other features include:

- State-of-the-art progressive filtration;
- A sufficient volume of Matala filter media with progressive densities;
- A filter design that enhances growth of different ecological communities of bacteria and planktonic organisms that will colonize different sections of the filter;
- A cross-flow pattern that traps more dirt at high-flow rates without plugging;
- A flow rate of up to 1,060 gph maximum per unit;
- Built-in overflow safety;
- Easy maintenance;
- A sloped bottom with extra sink at outlet for easy draining of waste; and
- A modular design that allows for future expansion.

For more info, visit [www.matalausa.com](http://www.matalausa.com).



**Kasco Expands Sales Team**

Kasco is pleased to announce the addition of Paul Amos to our sales team. In his sales position, Paul will work to create opportunities and grow existing relationships.

Paul is no stranger to Kasco, as he's worked as an independent manufacturer's representative for us for more than 10 years. His innate ability to identify ways to help our customers grow by sharing his own experiences will be of great value to the team.

Paul has a wealth of knowledge and experience across many aquatic industries. He's worked closely with pond liner sales and installations for many years and is considered a leading authority

on membrane liners in the United States. Paul has consulted and made sales to environmental engineers, landfill owners, industry regulators, mining companies, counties, municipalities and local, state and federal fish and wildlife agencies.

With a thorough grasp of both small and large pond applications and the use of bacteria and circulation to augment the ecosystem, Paul will help Kasco continue to thrive.

Paul's product knowledge as well familiarity with the industries we serve will make the transition to the team virtually seamless. Paul will be working remotely from his home office outside of Houston, Texas, and can be reached at [paul.a@kascomarine.com](mailto:paul.a@kascomarine.com), 715/262-2338 (office) or 713/825-1432 (cell).





**Atlantic Water Gardens Pond De-Icer**

Even while hibernating, pond fish need oxygen, and the carbon dioxide they exhale needs to dissipate from the water. Atlantic Water Gardens is proud to introduce a brand new Pond De-Icer capable of keeping a hole open for gas exchange during the harshest winters. The Atlantic Pond De-Icer is constructed of high-strength, high-temperature PPS polymer for incredible durability under the most adverse conditions. Economical to operate and fully automatic, its efficient heating element draws only 300 watts, and only when an internal thermostat detects water temperature dropping below freezing. As the water warms, the unit shuts itself off. An LED shines blue in standby mode when the De-Icer is plugged in and water is above freezing; it shines green when the temperature drops below freezing to show it is in operation.

Atlantic Water Gardens  
330/274-8317  
www.atlanticwatergardens.com



**Your Pond Farm 2018 Trade Show Recap**

Your Pond Farm would like to thank all the customers and vendors who attended the annual Pond and Garden Trade Show on Aug. 28 – 29. The fun, educational show enabled customers to see new products, visit with vendors and speak with pond professionals.

The seminars were very well attended, and there were many new products displayed from manufacturers like Iku Koi Kichi, Aquascape and Evolution Aquatics. The customers raved about the selection of koi on display and were especially impressed by the skin and color quality.

Your Pond Farm was also very excited to show their customers a sneak peek of their revamped website that will be live soon.

For all your water gardening needs, call Your Pond Farm at 877/412-3276 or email sales@yourpondfarm.com.

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