Magnify

CHAMPAGNE TASTE ON A BEER BUDGET

TINY TREES

GETTING TO YES WITH LESS STRESS
What You Can’t See

Well, what a time to have “magnify” as a theme! It’s a time when something so tiny we can’t see it without powerful magnifying tools is upending our lives and the lives of our clients, suppliers, friends, family, and neighbors. Luckily, as of press time, outdoor spaces — in all forms — have become more noticeably crucial to the health (physical and mental) and well-being of humanity. Of course, you and I know that that isn’t new. It’s just that now more people are noticing.

With new attention on our industry comes new opportunity and new responsibility. Designing for a world in which outdoor spaces, both public and private, are called upon to provide safe gathering areas for crowds, large and small, will require your innovation, creativity, research, and attention to detail. You’ll be called upon to help your clients safely “socially distance” with family and friends in their backyards, and to determine new ways to subdivide public spaces without completely closing them in.

Here’s how this issue’s articles will help you. Annie Martin and Jenny Peterson detail new plants to spice up home and public landscapes. A books excerpt from Jessica Walliser’s book Gardener’s Guide to Compact Plants: Edibles & Ornamentals for Small-Space Gardening (Cool Springs Press 2019) will further expand your plant palette. Our “Case Study” for this issue shines a light on the newer and growing field of phytoremediation. Susan Cohan shares her take on how to spot trends in “In the Field” from “before times” when she attended a trade show overseas. You’ll pick up some new ideas without leaving home. The same goes for Judy Nauseef’s travel inspiration, which gives you an armchair trip to Normandy, France.

Two great business articles, one from Geneviève Joëlle Villamizar, explaining how to help clients with Champagne tastes and beer budgets, and one from Joshua Gillow, about closing more sales, will help you keep your business growing.

We don’t know what landscape design in this new paradigm will look like. That’s up to you. I look forward to seeing what you create.

KATIE ELZER-PETERS  EDITOR@APLD.ORG
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*Dicranum scoparium*

See Design 101 on page 40 for more about moss.

**PHOTO BY ANNIE MARTIN**

*THE COVER: 2019 APLD SILVER WINNER CAMBRIDGE RESIDENCE BY NILSEN LANDSCAPE DESIGN LLC OF BOSTON, MA*
Magnify

I’m intrigued by the designers I meet who think their work is “small potatoes” compared to the work they see others doing. The fact is, each one of us provides a service that benefits our clients—and the environment—greatly by solving the issues they bring before us or rectifying site issues of which they weren’t even aware. Though we may not all find every project we take on to be large or every client to be the most notable, our craft is meaningful no matter its scope.

So how can we magnify the awesome work we do as professional landscape designers? Well, just like the movies, it’s all about product placement… or, in this case, service placement. We need to broadcast our work to be visible and sought after, which in turn secures our project load and justifies our need for higher billing.

How do you make yourself visible or sought after? I have found that designers who participate in relevant public events, including online events and gatherings, who aren’t shy when it comes to being in the spotlight, tend to stand out in customers’ eyes. Are you more expert incorporating native plantings, water conservation, or creative stone use? Whatever your expertise, seek opportunities to be seen as a local expert in that. Introduce yourself to the local media outlets and offer to share your knowledge: write articles, be an interviewee on a news show, or volunteer in a publicity event relevant to your business scope to make yourself and your work known. By doing this, we magnify our work and bring awareness of the need to hire professional landscape designers like us.

ERIC GILBEY, PLA

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The only magazine written by designers for designers, The Designer is looking for talented members like you to share your stories, teach new techniques, and inspire with your designs.

All submissions from APLD members are considered, but The Designer is particularly interested in articles that fit the issue’s editorial theme or are appropriate for one of the magazine’s regular columns spotlighting technology or business strategies.

**Seeking pitches for articles. We're always looking for writers for regular features including Wander.Lust., Travel Inspiration, Plant App(lication)s, Design 101, and Design Masterclass articles.**

Not sure if your story is a good fit? As Editor in Chief for 2020 Katie Elzer-Peters is happy to discuss your idea with you. Reach her at editor@apld.org.

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>>Click here for our submission guidelines.
Geneviéve Joëlle Villamizar has been bringing true nature to homes and businesses for twenty-five years. Currently, she is researching the human and nature connection for her master’s degree at Western Colorado University. Her goal is to rewild future generations of children through naturalizing the local school district’s campuses within ten years.

Annie Martin, aka Mossin’ Annie, is the owner of Mountain Moss Enterprises, Pisgah Forest, NC. A licensed landscape contractor, she provides conceptual design consultations and turnkey installations. An exclusive selection of live shade/sun mosses are available for sale through her online Moss Shop. Annie Martin is an Austin, TX-based garden designer and writer living in Iowa. Her emphasis is on residential design and native landscaping to create biodiverse, sustainable gardens with resiliency to grow under the conditions of climate change. Her book Gardening with Native Plants in the Upper Midwest was published in 2016. She has been a certified member of APLD since 1996 and served on the board of directors as certification chair and president.

Joshua Gillow, Lead Designer and Founder of MasterPLAN Outdoor Living, Joshua Gillow has always had an incredible respect and curiosity for Mother Nature and all of her infinite wisdom. After growing up working in a family-owned garden center, he received his degree in Architectural Design and Engineering, which led him to start his own firm. Joshua now designs and manages the construction of bold outdoor living spaces all over eastern Pennsylvania. When he isn’t spending time with his family or bringing families and friends closer together outdoors, he trains and competes around the country as #the_design_ninja with the goal of competing on the hit NBC TV show American Ninja Warrior.

Susan Cohan, FAPLD, is the award-winning principal of a boutique residential landscape design studio in New Jersey. Her work ranges from small urban backyards to large residential properties in the New York metropolitan area. She is also an inspiration junkie who travels the world to fuel her habit and is passionate about all things design related. She shares what she finds on her blog Miss Rumphius’ Rules when the spirit moves her.

Judy Nauseef, FAPLD, is a landscape designer and writer living in Iowa. Her emphasis is on residential design and native landscaping to create biodiverse, sustainable gardens with resiliency to grow under the conditions of climate change. Her book Gardening with Native Plants in the Upper Midwest was published in 2016. She has been a certified member of APLD since 1996 and served on the board of directors as certification chair and president.

Jenny Peterson, Lead Designer and Founder of MasterPLAN Outdoor Living, Joshua Gillow has always had an incredible respect and curiosity for Mother Nature and all of her infinite wisdom. After growing up working in a family-owned garden center, he received his degree in Architectural Design and Engineering, which led him to start his own firm. Joshua now designs and manages the construction of bold outdoor living spaces all over eastern Pennsylvania. When he isn’t spending time with his family or bringing families and friends closer together outdoors, he trains and competes around the country as #the_design_ninja with the goal of competing on the hit NBC TV show American Ninja Warrior.
It only takes a few minutes into a conversation with Maria Zampini to understand that she’s clearly passionate about plant genetics in general and with Proven Winners’ ColorChoice® Flowering Trees in particular. Zampini, owner of Upshoot—a horticulture marketing firm specializing in, among other things, new plant introductions—is the PW tree program manager and works directly with Spring Meadow Nursery to add ornamental trees to their already-robust Proven Winners’ ColorChoice® flowering shrubs program.

Daughter of famed nurseryman and plant breeder Jim Zampini, Maria Zampini explains that, for this collection of flowering trees, she started with some tree genetics from her father that were already in the market at retail as well as others that were not yet in full production. “Then we ramped it up to be available across the country and readily accessible for gardening consumers,” Maria explains. “My father used to say that he partnered with Mother Nature, and we’re happy to be carrying on that legacy.”

The Proven Winners’ ColorChoice® tree program started in January 2019 and now offers 7 ornamental trees that are available to growers with another 6 to 8 being trialed right now. “These are trees that are bred and selected not only for their beauty, but, for their disease resistance, multiseason interest, and retail appeal,” states Zampini, “with a little landscape-friendly size thrown in for a bonus.” Wondering how you can use them as design elements for your clients? Keep reading!

Show Time® Crabapple
(Malus sp. ‘Shotizam’)
This standard-sized crabapple offers fuchsia-red flowers in the spring, deep green foliage, and a lovely orange-hued fall color that offsets red fruits. The oval, upright growth habit makes it ideal as a street tree, remaining unbothered by damaging and harsh road salt.

Manageable growth and saturated color make Show Time® a standout.
design round up

Light pink blooms load the branches of Weeping Extraordinaire™.

Weeping Extraordinaire™ Flowering Cherry
(Prunus sp. ‘Extrazam’)

This flowering cherry might be the tree that offers a little something for everyone, with its large and full deep pink to light cherry-hued blooms, glossy coppery-to-emerald leaves, and burgundy fall color. “This one responds really well to pruning and trimming,” adds Zampini, “and holds its leaves just a little while longer than other cherries.”

Pink Snow Showers™ piles on the drama with its look-at-me arching branches.

Pink Snow Showers™ Flowering Cherry
(Prunus sp. ‘Pisnshzam’)

If you’re tired of the disfiguring effects of shot hole disease in many cherry trees, it’s time to give Pink Snow Showers™ a try. Once you get past that notable practical feature, the aesthetic attributes take center stage with dramatic arching branches loaded with pink flowers in the spring, silver-toned branches, and dark green, serrated foliage. “It’s a showstopper,” says Zampini, “and although it’s a single, it has all the vigor of a double.”

PHOTOS BY MARIA ZAMPINI, UPHOOT LLC
Golden Shadows® variegated foliage lights up a shady corner

Lollipop®’s unique shape makes it an ideal choice for smaller garden areas.

Golden Shadows® Pagoda Dogwood (Cornus alternifolia ‘Wstackman’)

This dogwood provides a workhorselike green backdrop to those slightly darker corners of the landscape. “It’s a more refined native and adds a pop of color with more horizontal branching,” says Zampini, “making it a really nice fine foliage tree.” That pop of color comes from the yellow and green variegated leaves and an abundance of white springtime flowers.

Lollipop® Crabapple (Malus sp. ‘Lollizam’)

Designers looking for a low-maintenance dwarf ornamental tree for containers should consider Lollipop® crabapple. “It naturally grows in this beautiful, rounded shape, and it doesn’t create a big mess like other crabapples can,” explains Zampini. “And tiny red fruits in the fall attract a variety of birds as well.” Add some sparkly white Christmas lights for a festive look, and you’re good to go.

Avalanche® Asian Birch (Betula x ‘Avalzam’)

For landscapes that can use a bit of drama, Zampini reports that Avalanche’ Asian birch is gorgeous when planted as an allée. The white exfoliating bark adds valuable texture, with lovely emerald green leaves that shift to a golden fall color. And just to prove that beauty isn’t always fragile, Avalanche’ offers a rugged growth habit that resists bronze birch borer and other challenging conditions.

Crusader® Hawthorn (Crataegus crus-galli var. ‘Cruzam’)

For those exposed spots in the garden or urban landscape, Crusader® hawthorn is an ideal choice. It’s a thornless, tough tree that not only takes anything you can throw at it (wet and dry soils, varying pH levels, clay, and salt), but bees tend to love it as well. White late-spring blooms combined with silvery bark and colorful fall foliage complete the long list of attractions.

Growers, propagators, and retailers interested in offering Proven Winners’ ColorChoice® trees should contact Maria directly at maria@upshoothort.com. Nurseries that are licensed to propagate and sell some or all of the varieties include Arrowhead Ornaments, Blue Heron Farm, Bountiful Farms, Hans Nelson & Sons Nursery Inc., Robinson Nursery, J. Frank Schmidt & Son Co., Spring Meadow Nursery, and Willoway Nurseries Inc., with more nurseries signing on this season.
When we at Susan Cohan Gardens became a full-service design studio similar in scope to that of interior designer, but for exterior spaces, our business doubled. Our clients appreciate that we take the time and have the knowledge to furnish their outdoor spaces with as much care as we give to plant selection and placement. Every plan we present to our clients includes furniture, fabric, lighting, and accessories.

We also make time every year to attend trade shows that are not aimed at our industry. Most people are surprised that we step outside of the “green” zone and into the worlds of furniture, fabrics, lighting, and accessories aimed at interior designers and architects. Those markets overlap with ours, and to ignore them is to disregard opportunities for growth both professionally and economically.

Every few years I add a few days to my winter vacation to attend an international trade show or fair. This past January, I visited the Maison et Objet in Paris. My goal was to spot trends on the horizon in the international design community that could directly relate to my work in landscape design. I was delighted to find plenty to inform my work. Here are some of the trends I spotted.

Charred and burnt wood finishes similar to the Japanese technique called shou sugi ban.

A renewed focus on naturalism.

Nature as inspiration was everywhere.
Traditional wicker and cane treatments used in contemporary outdoor furniture with clean lines (left and below).

Rich and saturated vegetable dyed hues used across different categories (right and far right).

African inspiration, whether raw and natural or combined with humor and technology (left and below).

Raffia, wicker, white, and gold—all sustainably made.

A sophisticated use of raw materials without intervention. Here, particle board walls and upended crates were used as an ad hoc showroom space.
Getting to **YES**
with Less Stress

Three Sales Tips to Sell More Projects

BY JOSHUA GILLOW

It's true that so much has changed in such a short amount of time that, as a business owner, it is tough to know how to prepare for what is coming next. And, quite frankly, that can be terrifying. Hopefully, your business saw a good bump with clients wanting to beautify their properties in late April to early May, but will that be enough?

If you find yourself waking up in the middle of the night worried about your employees, your bills, or how to get leads when not only is the country closed, but clients' wallets are, too, you are not alone. As a fellow landscape design/build business owner myself, I am right there with you. While no one is immune to this pandemic, and it will undoubtedly affect our businesses, it does not have to define our futures.

After trudging through sales systems and weeding out the concepts that just didn't cut it, I've learned a lot over the last 24 years in the trenches. I have found that 80 percent of sales happen on the first phone call. Yes, 80 percent. Without getting enough specific information from the client on the first call, you are setting yourself up for doubt, objections, and failure. You may have tried to implement the following tips in your business model before, but with the right mindset and approach during your initial phone call with a client, you will find that your success rates will catapult from where they are today.

1 **FOCUS**

You've probably lost count how many times potential clients have given you an insane laundry list of outdoor improvements to include in
their project. This makes it impossible to know which features are true priorities when getting to the root of the project. So, on the first call, ask, “From your list, which are your top 3 priorities for this project?” After they respond, then ask, “Okay, from your top 3 list, which is your highest priority?” This sounds simple, but you will find that the answer is a powerful piece of information to have while developing your conversations and still maintaining the primary focus.

When a client gives you their rough budget, ask them what they hope that cost will cover. Let them talk. Ask them if this budget is rigid or flexible depending on the features and design. Let them talk. By coming from an understanding, yet professional, approach to the budget, you will find that you will be uncovering design parameters within this chat!

Of course, there are some clients who won’t give a budget or say they don’t know what things cost. That is fine. Let this client know that, “To schedule a meeting with me and extend this conversation to the next step, it’s necessary for me to get a sense of the overall scope of project in regard to budget because the last thing I want to do is create a design that you love but which is five times the amount you would like to spend.” Most likely, they will then give you a number.

My last tip is to find out where this client is in the process. You may ask, “What have you done either professionally or on your own toward the completion of this project?” If the name of another company comes up, you can continue, “What did they offer that didn’t work for you?” Boom! Now you know what could potentially hold them back from working with you, and you can work on relieving their stresses.

There are many different scenarios that play out in your initial calls with potential clients, but when you have the right strategies in your toolbox, sales will get easier and you will connect with your clients on a deeper and genuine level.

Tips for Continued Success

- Try not to correct clients if they use the wrong terms; ask them to elaborate on what they mean. No one likes to be corrected.
- Require all decision-makers to be on every call and in every meeting. Successful projects happen when everyone is on the same page.
- Always remain in control without being controlling—you can steer the conversation and project in the proper direction without going off the rails.
- You need to earn the right to ask about budget. Build ample rapport in your initial call before talking money.

ELIMINATE STICKER SHOCK

Don’t like to talk about budget? Tough! Do it. Clients don’t want to be surprised by hidden costs and designs that have gone way over budget, especially in uncertain economic times. The most crucial thing to do as a design professional is to make sure you have a truly deep understanding of what the budget means to your clients. Remember: surprises kill all deals.

On the first call, it is critical that you and the client agree on a budget because unless you hit this subject head-on, you will pay for it later. In a market with fewer buyers, it is imperative to save time and energy by eliminating sticker shock. Trust me, this process does not have to be awkward.
Q: Help! I often have clients with Veuve Clicquot tastes on a PBR beer budget. How do I manage their expectations while helping them develop a more realistic budget?

A: Entertain their dreams to start the design process. While designers have a responsibility to rein them in, as “creativepreneurs,” we must accomplish that with a sense of possibility rather than limitation. To our clients, no matter what the budget or ability is, any level of design is a luxury. Approach constraints with gusto. They can actually help you come up with creative solutions.

Q: Waterford crystal or keg stands?

A: Encourage your clients to let all their ideas flow—all their needs and aspirations. Then we as designers have the exciting challenge to distill the spirit of those into a realistic future.

Q: Include a budget line item on your intake form.

A: This begins a client thinking about a budget realistically, in private, with time for genuine reflection before you even begin the design process. You can have a tab on your website representing three “typical” levels of landscape budget. This gives clients an idea of realistic investment entry points.

Q: Offer to design in phases during which they may opt to have a role.

A: Let clients prioritize what they’re willing to wait for versus what they want or need first. Then design for that. Additionally, let them know any aspects of the project they can do to save thousands.

Q: “If you have to ask ... ”

A: So you want a natural swimming pool? Sticker shock is a wonderful reality check that has nothing to do with you. Develop an easily...
Before introducing you to some of the best small-plant varieties for your landscape and discussing how to plant and care for them, it’s important to understand what makes a particular plant fit into the category of “compact.” What traits must it have to be considered small when compared to its relatives? And where do these plants come from in the first place?

**WHAT EXACTLY IS A COMPACT PLANT?**

As with people, plants come in a wide array of shapes and sizes. While some landscapes are large enough to handle a tree that grows 60 feet tall or a shrub that spreads 12 feet wide, lots of backyards don’t have enough space for such a substantial specimen. Not to mention the fact that many homeowners aren’t interested or able to be constantly pruning their plants to make them fit into a smaller yard. Thankfully, the nursery industry has taken notice of all of this, and it continues to develop and select plants with a restricted size for these smaller yards and gardens (more on this process in a bit).
Exactly which plants can be called compact is certainly debatable, but basically, when a particular plant variety exhibits a substantially reduced size when compared to other normal plants of the same species, that particular variety can be considered compact (sometimes also called dwarf). This size reduction can be exhibited in either the plant’s height or width—or, often, both. While the limited stature of these plants doesn’t necessarily make them miniatures (which is a whole other category of plants), it does indicate that the plants have a growth habit that’s smaller than normal for their species. In some cases, the speed of growth is limited, too.

There are hundreds of compact tree, shrub, and perennial varieties, many of which are featured throughout this book. Let’s take a closer look at each of these three groups separately and determine which traits they might have that make them “compact.”

**TREES**

**NARROW GROWTH:** When a tree is thinner than other trees within that same species, its slender form makes that variety fit under the umbrella of compact plants. Narrow trees that have a single trunk are called columnar trees. They may have upright branches or drooping pendulous ones, but their branches are always shorter and held close to the trunk. Fastigiate trees, on the other hand, are another group of tall, narrow trees; but these trees have multiple trunks or longer branches that reach straight up to the sky to create the narrow form. Both, though, are considered compact plants, even though some varieties of columnar and fastigiate trees can grow 60 feet tall or more. There are plenty of both types of these trees, however, that aren’t nearly as tall. In chapters 4 and 5, I detail several varieties of these trees that are beautiful landscape plants, but a great example is the Apollo’ Sugar Maple (Acer saccharum ‘Barrett Cole’). While standard sugar maples have a massive canopy spread that can quickly overtake even a modestly large backyard, Apollo’ maxes out at just 8 to 10 feet wide, about a quarter of the size of a typical sugar maple. (You’ll find more about this variety in chapter 5.) Columnar and fastigiate trees are excellent for tight quarters, between homes, along streets, and next to patios—anywhere where wide branches wouldn’t be suitable.

**SHORT STATURE:** Trees can also be considered compact if their mature height is substantially shorter than others within their species. More often than not, this reduced height is coupled with a reduced spread as well, making these trees choice selections for postage stamp–sized yards or petite planting beds. Typically, compact trees in this category grow to less than half of the height of their relatives. A good example is the Sargent Tina Crabapple. This compact variety of the standard crabapple has beautiful blooms and is incredibly hardy, and it tops out at just 5 feet tall and 6 feet wide (see chapter 5 for more on the Sargent Tina Crabapple).

**SHRUBS**

When it comes to shrubs, the compact trait is most often shown in both the height and width of the mature plant. This means these shrubs keep their small stature without a lot of pruning or fuss. There are two basic groups of compact shrubs to be on the lookout for.

**DECIDUOUS FLOWERING SHRUBS:** These compact shrubs may have a reduced size, but they almost always produce full-sized blooms. Though they lose their leaves in the winter, shrubs in this group are real knockouts in the landscape. They have all the bloom power of their standard-sized cousins but in an itty-bitty package.
EVERGREEN SHRUBS: Though there are plenty of deciduous flowering shrubs for homeowners to include in their gardens, there are scores of compact evergreen shrubs, too. While some are needled evergreens, others are broad-leaved evergreens that may or may not produce showy blooms (think rhododendrons, azaleas, and laurels). But regardless of whether they’re needled or broad-leaved, evergreen varieties are terrific for foundation plantings, shrub islands, mixed borders, and even low hedgerows where the homeowner wants something “green” all year round. You’ll find specifics on a wide selection of both deciduous and evergreen compact shrub varieties in chapters 4 and 5.

PERENNIALS
Compact perennials are the ideal fit for the front of foundation plantings, along sidewalks, next to patios and decks, in flower beds and borders, around mailboxes, and even in containers. The blooms of these plants are standard size for their species; it’s just the plant’s foliage height that’s smaller. Overall, dwarf perennials are lower growing, reaching a far shorter height than normal varieties of the same species.

However, with a few exceptions, most spread just as wide as their full-sized counterparts, though they may take their time getting there. Perennials are herbaceous plants that do not produce woody growth and return to the garden year after year, springing out of the ground when spring arrives as long as they’re planted in a region where they’ll survive the winter. Like trees and shrubs, perennials are classified in part by the hardiness zones in which they will survive. In each of the plant profiles in subsequent chapters of this book, you’ll find I’ve noted the lowest winter temperature down to which each plant variety will survive without damage. This can help you determine which varieties of compact trees, shrubs, and perennials will grow in your garden.

WHERE DO SMALL-STATURED PLANTS COME FROM?
Now that you know what traits make a plant compact, it’s time to discover where these plants come from. Despite what certain scare-tactic “news” articles may lead you to believe, the compact plants available to homeowners are not the result of some funky genetic-engineering technique. Yes, there are some dwarf farm crops that were created through genetic engineering, but as of this writing, there are no genetically engineered ornamental plants on the market. Instead, compact plants are selected or developed in one of three different ways.

First, compact plants can be selectively bred through classic plant-breeding methods where the breeder selects for the desired trait of a reduced mature plant size. Breeders look at a group of plants and select the most compact ones of the bunch; then they cross those plants with other shorter-statured selections. Eventually, through
numerous judicious crosses over several generations, the dwarfing trait becomes more pronounced and stable. This method has been used by farmers and plant breeders since the dawn of agriculture to breed for any number of different desired traits, including things like bloom size, color, or time; improved hardiness or yields; disease resistance; or any other positive attributes that may be deemed desirable. This is a common method for creating compact vegetables, annuals, and perennial plant varieties. It’s less common, however, with trees and shrubs because it requires a far longer span of time for these types of plants to reach maturity. Next, compact plants can be chosen from natural genetic variants found in a population of the plants. Genetic mutations occur frequently in the plant world, especially when growing from seed; and often, when examining a large group of seedlings, one can see a few natural genetic variations within the group. Whether it’s a random leaf variegation, a different flower color, or a change in plant stature or structure, genetic mutations happen often. Horticulture professionals, growers, and plant breeders are always on the prowl for natural variants that show desired traits. So, for example, if one seedling in a group of 100 grew to half the height of the others, it may be selected and grown to maturity to see if that dwarfing trait is also exhibited in the full-grown plant. If it is, the breeder may then decide to propagate the plant vegetatively to ensure the trait is present in future generations (more on this in a moment). Natural genetic variants are sometimes found in nature, as well. Many of the compact trees and shrubs featured in this book were originally discovered as a single random specimen at a botanic garden, a breeding facility, a nursery, a private garden, or even in the wild. In most of these cases, the plants are then propagated vegetatively. Since these types of compact plants seldom grow true from seed (meaning plants grown from seeds harvested from these plants will not carry the same dwarfing trait), they are instead grown via leaf, stem, or root cuttings taken from the single “mother plant” that showed the desired genetic variation. Vegetative propagation can also take place via a tissue culture lab, or in the case of herbaceous perennials, vegetative propagation may occur through crown division. When plants are vegetatively propagated in any one of these ways, they are an exact clone of the “mother plant” they came from, which means, of course, that the compact trait is definitely present in all future generations. Third, plants can be made to stay compact via a process called grafting. Grafting is a centuries-old craft in which a person takes pieces from two or more different plants and grafts them together so they grow as one plant. The grafting process is performed...
because it brings multiple positive traits from separate plants into a single plant. It’s a technique that can be used to create plants with improved disease resistance and hardiness, increased yields, or unique physical forms, such as topiaries, standards, weeping branches, and yes, compact growth habits.

Though there are many different types of grafting, in its simplest form, grafting attaches the shoot system (the scion) of one plant to the root system (the rootstock) of a separate plant. The two are grafted together in a fairly simple procedure, and once the graft union has healed, the two plants grow as one. In most cases, the scion and rootstock must be from the same species (or, sometimes, the same family) in order for them to be compatible with each other and for the graft union be successful. In other words, you can’t graft a juniper with an oak tree. But, you can graft an apricot with a peach tree because they’re in the same stone-fruit family.

Nursery professionals sometimes use grafting to create dwarf or compact plants by selecting and using a specific rootstock with dwarfing traits. Then, they graft the shoot system of a full-sized compatible variety of that plant on top of the rootstock. The dwarfing trait in the rootstock is then transferred to the shoot system, yielding dwarf fruit trees, some types of dwarf evergreens, or other compact plants.

Grafting is quite common among fruit and ornamental trees, especially those with unique or specialized forms. For example, many weeping trees are created by grafting a pendulous shoot system onto a straight-trunked variety of the same plant, and some Japanese maples and fruit trees may be grafted onto different rootstocks in order to improve their winter hardiness. Novelty pom pom bushes are often created through grafting, as well.

One slightly newer way the technique of grafting has found its way into our gardens is through vegetables. Some seed and plant catalogs are now carrying grafted tomatoes, peppers, melons, and other vegetables. Grafted vegetables are created by selecting a great-tasting, heavy-yielding variety and grafting it to a rootstock with improved disease and pest resistance, early maturity, drought tolerance, and/or vigorous growth. The idea is that these grafted plants will perform better and produce earlier than those vegetables that are ungrafted. As of this writing, to my knowledge there are no dwarf vegetables that are created through grafting; but I have no doubt they are a part of gardening’s future.

Keep in mind, though, that grafting is useful only for the generation of plants on which it was performed. The improvements or dwarfing traits made through grafting are not carried to the next generation via saved seeds or even by taking cuttings of the plant. It’s just for a single generation.

THE BIG FAKE-OUT
There is another method that greenhouses and commercial growers sometimes use to keep plants more compact and tidy, but it’s one that’s both temporary and, some say, questionable. Plant-growth regulators (PGRs) are chemical sprays that influence various plant hormones and cause an artificial and temporary mutation in the plant they’re applied to. Several different PGRs are used for a number of different reasons, but the ones I want to focus on here are applied to plants to inhibit their growth and keep the plants’ stems shorter.

Proponents say that using PGRs makes plants more attractive to the consumer (read: more neat and tidy) and easier to handle in the greenhouse (it’s tough to transport or sell a flat full of tall, leggy plants all tangled together). Those against using PGRs for height control in plant production note that few studies have been done to examine the safety of these chemicals, especially when used on edible plants like vegetables and herbs, or on the amount of residual PGRs remaining in these plants at the time of consumption.

Whether you’re pro or con when it comes to PGRs, it’s important to understand that once these plants are moved out into the landscape and applications are stopped, the plant will eventually revert to its normal size and growth habit. Don’t be fooled by PGRs. Do your homework and make sure the plant you’re purchasing hasn’t been forced into dwarfism via these products, only to grow back into a full-sized plant when placed in your garden.
CHOOSING THE RIGHT MOSS FOR THE RIGHT PLACE

By Annie Martin
Mosses have much to offer landscape designers, with their year-round green appeal. Numbering more than 10,000 species worldwide, mosses (Bryophytes) provide many creative and functional options to consider as intentional horticultural choices in contemporary landscape design. The challenge is to select the right moss for the right place. In terms of geographic planting zones, which are based upon cold hardiness, it’s easy. All moss species can tolerate subfreezing temperatures and provide beauty, even in the winter. There’s more to selection than hardiness zone, though.

MOSS SELECTION TIPS

Let’s move beyond the generalized conglomerate term—moss—and recognize the distinctions between moss genera, each of which grows in various climates and microclimates. Sun exposure is a key factor in making decisions that will lead to long-term success. It is commonly accepted that many mosses can live in dense shade “where nothing else will grow” such as under a tree (Atrichum, Aulacomnium, Bartramia, Climacium, Dicranum, Entodon, Hypnum, Mnium, Rhodobryum, and Thuidium). Yet it’s amazing how many genera are versatile with the ability to live in shade and/or partial sun locations (including crossover genera Atrichum, Aulacomnium, Brachythecium, Climacium, Entodon, Hedwigia, Hylocomium, Hypnum, Leucobryum, Polytrichum, Thuidium, and Sphagnum). Further, there are sun-tolerant mosses that actually like direct sun exposures (Bryum, Ceratodon, Ditrichum, Entodon, and Funaria). So, there is a right moss for any place.

Beyond assessing sun exposure throughout all seasons, not just summer, secondary factors important to most genera and species selection include:

- **Soil pH**: Acidic mosses prefer a soil pH of 5.5; yet many species can grow in alkaline (higher pH) conditions.
- **Substrate**: soil, pavement, gravel, rock wall
- **Microclimate conditions**: high heat index vs. humid, soggy areas
- **Purpose of project**: foot traffic vs. visual destination


*All photos by Annie Martin, www.mountainmoss.com*
DESIGNING WITH MOSSES
Professionals can incorporate mosses into all types of innovative designs including natural native plant restorations and wildlife habitats; formal perennial/annual gardens; enhancements to hardscapes such as rock walls, stone patios, and gravel walkways; water features and bog gardens; accents for outdoor sculptures; and—growing in popularity—moss lawns as an alternative to grass lawns. Enticing retreats need not be limited to Japanese-style gardens; creative approaches to moss landscaping offer ingenious minds new horizons.

Mosses provide myriad shades of green, sometimes with golden overtones. Delightful jewel-tone colors—crimson, golden, bronze—will occur throughout all seasons during sporophytic displays (the reproductive equivalent of vascular flowers). The textures and colony shapes can add depth to conceptual designs with colonies that grow in mounds or cushions (acrocarps, which are upright growers) and other species that spread horizontally like carpets (pleurocarps, which are sideways growers).
HOW LONG DOES IT TAKE FOR MOSS TO ESTABLISH?

Most likely, you are wondering how much time it will take to see visible horizontal expansion to fill in vacant spaces. Know that only the pleurocarpous species will grow sideways; acrocarpous, upright growers, will get larger and form denser colonies. Expect some distribution to occur from the natural dispersal of spores (not seeds) during reproductive stages and the asexual stages of moss plant fragmentation.

To provide clients with an immediate “green” gratification, plant mosses contiguously with upright moss colonies butted up right next to one another and sideways mosses interleaved together along the edges. Other planting methods include using colonies, plugs, or frags (fragments of moss plants). Using these intermediary strategies, mosses could take 6 months to 2 years to fill in depending upon environmental conditions and proactive caretaking practices utilized by landscapers and/or homeowners to encourage moss growth. To an extent, certain moss genera are better at vegetative reproduction, such as Climacium.

Pine needles are commonly used to “dress” garden beds. Or you can feature year-round green mosses instead. From the interior vantage point, mosses provide the benefits of biophilic design bringing the outdoors into work places.

The author, Mossin’ Annie

ALL PHOTOS BY ANNIE MARTIN, WWW.MOUNTAINMOSS.COM
Mosses are social and different species can live harmoniously together. The contrast of various shades of green and gold is striking. Moss species: Dicranum and Thuidium.
ESSENTIAL MOSS MAINTENANCE
Proper ongoing maintenance is essential for favorable outcomes with moss, including:
■ Provide several brief supplemental watering sessions (2 to 3 minutes several times a day).
■ Regularly remove leaves and other debris.
■ Weed as needed.

NOTE: There is a direct correlation to positive results related to supplemental watering versus relying upon Mother Nature’s rainfall.

MOSS MYTHS VERSUS TRUTHS
Moss myths abound in our industry, with misinformation and exaggerations leading both consumers and designers to make decisions resulting in ineffective or disappointing results. Always check your sources for information about any plant before using in a personal or professional installation—and use this information dispelling common moss myths to get started.

Does the “moss milkshake” or “slurry” method work to establish moss in a landscape? This FAQ refers to using a blender and buttermilk to make a moss mixture to “paint” on a wall or spread on the ground to start moss projects. In reality, it is a haphazard method that usually ends in failure or minimal results. You need to choose the “right moss for the right place.” You can’t use just any moss species. Besides, how many blenders would it take? Rain might wash it away or intense sun exposure and hot temperatures could cause mosses to desiccate. Wishful thinking is the “myth” aspect of this idea. The “truth” part is that mosses can grow from plant fragments.

However, there are better techniques than a moss milkshake to achieve professional moss landscapes or living moss walls.

NOTE: Prepackaged products don’t specify which moss species are included in the mixture, which could lead to inconsistent, disappointing outcomes.

If it’s called a moss, it must be a moss. False. Plants called “moss” are not necessarily true mosses (Bryophytes). No true moss will ever have flowers, seeds, or roots.

■ Reindeer “moss” (Cladonia rangiferina) = Lichen
■ Spanish “moss” (Tillandsia usneoides) = Epiphytic flowering plant
■ Club “mosses” = Lichopodium genus
■ Irish and Scotch “moss” = Vascular plants (Sagina genus)

Moss grows on the north side of trees. Yes, indeed. But if desirable growing conditions exist, particularly in climates where it rains frequently or there is high humidity, mosses can grow facing south, east, and west too.
Phytoremediation Primer for Designers

BY NANCY TAYLOR ROBSON

When creating a new design, landscape and garden designers tend to focus primarily on use combined with the aesthetics of a space. We want our built and planted spaces to be useful and to appeal to these senses: sight, sound, fragrance, and touch. But what if we could enlarge that prime directive by adding another, less readily apparent but as important, dimension to a design?

Phytoremediation—from the ancient Greek word *phyto*, meaning “plant,” and the Latin word *remedium*, meaning “restoring balance”—is a beautiful way to magnify the function of a designed space.

“It’s using plants to clean up or restore sites that have been negatively impacted by any number of things,” explains Timothy A. Volk, Senior Research Associate and Associate Chair SUNY College of Environmental Science and Forestry. Phytoremediation, aka phytotechnology, is being used on brownfields to clean up contaminated soil, to remove pollutants from groundwater systems, and to filter pollutants from the air.

“The low-hanging fruit is to create really simple buffers for particulate matter in [the] air,” says landscape architect Kate Kennan, owner of design firm Offshoots, Inc. in Boston, Massachusetts. “We have street trees with stickier, waxier leaves with more hair that act as a screen, and it helps scrub some of the air.”

Additionally, there are approximately 720 plant species globally that can help to clean groundwater and soil. Some uptake and sequester heavy metals; others gulp groundwater and then degrade the pollutants, releasing about 25 percent of the purified water through evapotranspiration of their leaves.

“Phyto buffers for screening and mitigation are a living system and very inexpensive,” Kennan notes.

While the study of plants-as-remedy grew up in the 1970s and ’80s, observant prospectors in Siberia had noticed in the 1930s that the presence of certain plants indicated areas rich in certain minerals. Subsequent research proved that particular plants, sometimes called hyperaccumulators, can uptake and retain unusual quantities of heavy metals and minerals such as lead, arsenic, cadmium, selenium, and more. But it wasn’t until the turn of this century that phytotechnology as environmental cleanup began to bleed into mainstream landscape design.

In 2004, while earning her master’s degree at the Harvard Graduate School of Design, Kennan took a course in brownfield remediation from Niall Kirkwood.

Soil samples at the site of the former gas station in Hyannis prior to beginning design work (right).
“My very first project was a gas station site down on the Cape,” she remembers. “The town was going to use the site for stormwater infiltration, and I could smell petroleum on the site and asked Niall what we could do. As a result of the soil testing of the gas station site, we put in buffers and retention plantings.”

Kennan’s subsequent 2015 book, *Phyto: Principles and Resources for Site Remediation and Landscape Design*, written with Kirkwood, is a deep dive into the specifics of phytoremediation. “We wrote the book to answer the question, How does the designer apply the science?” Kennan explains.

Incorporating phytoremediation into a design is both art and science. The site’s topography, soil characteristics, the specific contaminants, the climate—and of course, the client’s objectives—all play a role.

“Every site’s a little different,” says Volk. “To make it successful, you have to understand that site and design the plant-based system to take up those contaminants.”

“People [also] need to understand . . . what the capabilities of the system are,” adds Edward Gatliff, PhD, President of Applied Natural Sciences, Inc. in Hamilton, Ohio, which uses TreeWell technology, a means of deep-planting specific species to remediate water systems. But Gatliff emphasizes that you can’t just plonk in hyperaccumulator trees and expect it to work.

“If it’s too crowded, [then] air’s not moving through, and you get a one- or two-dimensional evapotranspiration surface where you can get a three-dimensional surface area with proper spacing,” he says.

“There isn’t a one-size-fits-all solution to the problems,” Volk agrees, “and there’s a huge array of different plants that can do different things. It takes extra effort to find people with the expertise of the plants, the site, and the site’s needs to bring those pieces together to make it successful.”

Obvious pluses of phytoremediation are its much lower cost and smaller carbon footprint versus traditional remediation. A drawback is that it takes longer.

“You can put plants on a site to take up the lead [for example],” says Volk. “But it will be a multiyear process. If a town or village is under an order to clean up by a certain date, phytoremediation is challenging unless you can persuade the oversight agency to stretch the deadline.” (The lower costs and environmental benefits are helping persuade regulating agencies to be more flexible on timing.)

Landscape designers have long incorporated stormwater management into plans.

“We’re good now at integrating rain gardens and bioswales,” says Kennan. These sites usually include native plants that simultaneously help restore some diversity of wildlife and pollinators, magnifying the overall benefits. Phytoremediation can add yet another element that significantly increases the long-term value of a design. “You have added so many opportunities by inserting these filters,” Kennan observes.

From a designer’s perspective, phytoremediation can complicate the creative process while its benefits are not always apparent to the naked eye. But the long-term gains multiply the design’s underlying value and ensure that a designer’s work has long-lasting impact that reveals itself over time. Its multilayered beauty will be seen, felt—and measured—for many years to come.

**Resources**

- *Phyto: Principles and Resources for Site Remediation and Landscape Design* by Kate Kennan and Niall Kirkwood (Routledge 2015)
- International Phytotechnology Society
- Soil Science Society of America
- How Baltimore is saving urban forests—and its city
I had seen the Boxwood Tours advertisements in Gardens Illustrated magazine for many years. In early 2019, I sent away for the brochures and found an available trip to France (always desirable) at the end of September. I had not been to Normandy, and the opportunity to see the French countryside and private gardens aided my choice.

BY JUDY NAUSEEF FAPLD

PHOTO BY JUDY NAUSEEF, FAPLD
All 24 participants were from the United Kingdom except for me, and all were avid, experienced gardeners. Our two guides spoke French and English, but it was an opportunity to practice my French as not all the garden owners/designers/caretakers who greeted us spoke English well. This tour featured the Gardens of Varengeville & Haute-Normandie. We stayed in Varengeville and traveled by motor coach to eight gardens over a period of four days. The hotel, a short walk from the sea, was lovely, and all meals were included, which meant wonderful French menus at lunch and dinner with plenty of wine. The stark, harborless beach and cold rolling waves of the sea have been captured in paintings by many including Monet, often from the top of the white cliffs.

The best garden visits begin with a welcome from the garden owner or designer, expressing joy at the arrival of guests. This happened at each stop of this tour. Each host guided us through the gardens, and when they spoke in French, a tour guide translated for us.

I will share four of the gardens with you. In all of them the designers magnified their ambitious visions while transforming the landscape. The first two accomplished this on grand scales and the second two with more intimate settings.

I was convinced to attend the tour after reading the description of Le Bois des Moutiers in Varengeville-sur-Mer, which was designed by Sir Edwin Lutyens. Additionally, Gertrude Jekyll, another English designer practicing in France, worked with Lutyens on the design and planting of the gardens. Guillaume Mallet and his wife, Marie-Adelaide Grunelius, commissioned the design of the exceptional house and garden. Lutyens designed the house in the Arts and Crafts style. Antoine Bouchayer-Mallet gave us a memorable guided tour of the house and gardens, and we felt specially chosen as both were soon to be closed to the public for restoration. Bouchayer-Mallet has been maintaining the estate by offering tours, concerts, and a location for filmmaking, but a buyer has now been found who plans to spend two years restoring it. Twenty-four acres in size, the property includes the house, gardens, and a large park, designed by Guillaume Mallet, leading down to the sea, visible from the top floor of the house.
Everything about the house and walled garden was designed to work as one from materials, stonework, site lines, movement both in the house and garden, and the views from both. Although our guide pointed out material choices and design, which we all appreciated, we weren’t able to appreciate it entirely until we had a true understanding of the purpose and effect of every part.

Unless they surrounded a historical chateau, the gardens we visited did not arise from a sense of place so much as from the vision of the owner and/or designer. L’Etang de Launay, another private garden also in Varengeville-sur-Mer, is a property near the sea. A pond (l’étang), small streams, and a variety of sloping terrain provided Jean Louis Dantec a place to create a protected habitat of little valleys with streams to the sea. He planted nearly every tree and shrub and has maintained the garden himself, including doing the pruning. Twenty years ago, it was a blank slate when he began the garden by planting windbreaks with the plan to create a beautifully designed woodland. The wide number of species shows his deep horticultural knowledge. When I visited, the grass paths were wet and slippery from days of rain but we kept up with the owner to learn as much as we could about how he conceived and built this landscape.

The next day we visited Le Jardin Plume, which is located southeast of Rouen. It is owned and designed by Sylvie and Patrick Quibel and was begun in 1997.
Le Jardin Plume: We filled this garden, walking through the maze of boxwood hedges and getting close to the perennials (above). The structure of this garden is clear in this photo. The tall hedges are to protect the garden from the wind, the shorter hedges are to direct visitors, and the shaped conifers reflect the shape of the building gables (below).

Le Clos Normand: The formal entry to this garden belies its exuberant interior. I was easily drawn into the garden to explore all its ins and outs (top). Inside the garden, tall, narrow conifers provide a transition from the formal to the informal garden. The picturesque home adds to the cottage/English garden feeling as do the small paved areas throughout for sitting (above).
Le Clos Normand: Even on a rainy fall day the garden offered colors, textures, and scents to enjoy. The matching tall conifers form a strong backdrop to this area of the garden.

This 4-acre site was also a blank slate with picturesque farm buildings and an apple orchard. Patrick Quibel gave us a tour, speaking French the whole time. He spoke about plants, but I was able to catch the meaning as he used botanical names. They began by planting boxwood and yew hedges to protect the gardens from the wind, which was strong on the viewing platform where we began the tour. Much of the space is divided into spring, summer, and fall gardens with a large block of North American switchgrass. Blocks of shorter grasses surround the apple trees in a geometric pattern. A smaller garden surrounded by tall hedges and intersected by paths astounded all of us. It was a riot of color, even at the end of September. A variety of tall perennials with some annuals swayed in the wind as bees visited the blooms. The Quibels incorporate many North American natives such as Culver’s root, purple coneflower, asters, and grasses.

The last garden we visited was Le Clos (meaning “walled or enclosed”) Normand in Varengeville. It’s another Mallet garden, owned by Constance Kargere, the sister of Robert and aunt of Antoine. We felt comfortable in this traditional French garden with its English cottage planting style. Informal sitting areas surrounded by tall see-through plants looked familiar. Our hostess was there to visit with us and answer questions. It was another rainy day, but that only improved my photos.

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