



Leaflet

A MASSACHUSETTS HORTICULTURAL SOCIETY PUBLICATION



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GROWING TOGETHER

Why on earth is a home builder Chair of the Massachusetts Horticultural Society Board of Trustees?

MHS has endured for almost 200 years by staying true to its founding motto, *Commune Bonum*, for the public good. Now in our 193rd year, President and Executive Director James Hearsum states our modern mission concisely: "to mobilize communities...to create regenerative solutions to individual, community, and planetary needs." Foregoing the Latin, we call this simply 'Growing Together.'

Growing Together starts with our Board of Trustees—a broad minded group with backgrounds in medicine, law, business, recruiting, retail, entrepreneurship, architecture, fundraising, music, nursery and landscape, finance, even home building—a marvelously optimistic, intelligent, interesting, and respectful cross section of human endeavor. Collectively, we embrace Growing Together and apply that imperative to all we do in direction and oversight of function for MHS. And we look at growing in the broadest sense—where is our effort focused? Who are we reaching now with programs, displays, and classes? Do we have the right leadership in place to accomplish our goals? Are we listening effectively to our constituencies? What new funding sources can we find to continue to grow?

Operationally, we function at two levels. One is the Garden at Elm Bank, the park-like grounds and horticultural displays at our physical location in Wellesley and Dover. As we reopen the Garden at Elm Bank this spring, we are offering new and enhanced staffing in our horticulture displays, and expanded renewal of the Olmsted landscape on the north side of the property. We are also showing *Seeing the Invisible*, which must be seen to be believed. I love it. Don't miss it!

The second level is our state and region-wide role as convener and collaborator in all things horticulture in Massachusetts and New England. We actively seek out regional partnerships with whom to coordinate and collaborate in fostering the notion of Growing Together. We want to find ways our knowledge and expertise can leverage that of like-minded individuals, schools, gardens, arboreta, museums, and businesses all working together to make the global biome healthier.

Growth and development. That is what human beings do. That is what MHS does. Doing it sensitively, inclusively, responsibly, economically, and beautifully—that is our goal. Growth and development—that is why a home builder is Chair of the Massachusetts Horticultural Society Board of Trustees.

Finley H. Perry, Jr.
Chair

UPCOMING CLASSES



Structure and Ornament in the Garden
April 7, 6:30-7:15pm



Hydrangeas 360: The Straight Talk on Hydrangeas for New England
April 9, 10-11:30am



The Hummingbird Garden
April 20, 6:30-7:30pm
VIRTUAL



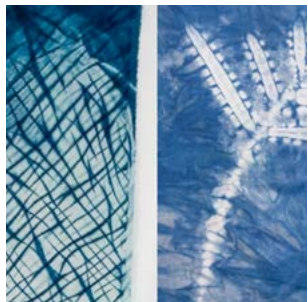
Acrylic Drip Resist with Watercolor
May 18 & 19
1-3pm



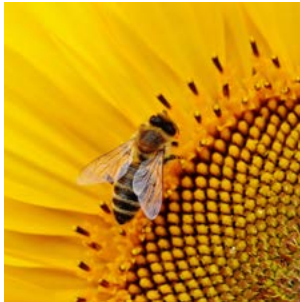
Garden Photography Workshop
May 22, 10:30am-1:30pm



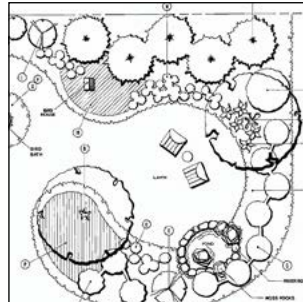
Botanical Printing on Fabric Workshop
June 22 & 23, 9am-4pm



Shibori & Indigo Fabric Dyeing
June 25, 9am-4pm



Macro Photography Workshop
June 25, 10:30am-2:30pm



The Art of Planting Design: Learn to Design in Seasonal Sequence
July 13, 10am-2pm

[VIEW ALL](#)

GREEN PARTNER SPOTLIGHT

Flash your membership card for a 10% discount with any of our Green Partners.



Arbor Day Celebration at the Garden at Elm Bank

Saturday, April 30 & Sunday, May 1 | 10am-2pm



Arbor Day Celebration



Micro-Topia A Garden Experience at the Garden at Elm Bank

Friday, May 6th & Saturday, May 7th | 10am-8pm

DROP-IN FAMILY PROGRAMMING



Mondays & Wednesdays
11-11:30am



Saturdays
10am-noon

Thank you to our 2022 Garden Opening Sponsors

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Olmsted Asian Garden Restoration

By Andrew Gorman
Beals + Thomas

Beals and Thomas, Inc. (B+T) is pleased to be assisting Massachusetts Horticultural Society (MHS) with its effort to restore and enhance the Olmsted Asian Garden component at Elm Bank. Given the nature of the restoration effort being situated within a floodplain, waterbodies, and other wetland resource areas and associated buffer zones, there are multiple levels of permitting required to achieve the restoration goals.

B+T undertook an initial reconnaissance of the Asian Garden and adjacent canal in April 2021. The purpose of this initial site visit was twofold. First, we mapped the approximate locations of key clusters of invasive plant communities. Secondly, we delineated wetland resource areas in this portion of the Elm Bank property, a process which was crucial for understanding the regulatory constraints of the planned restoration work.

Once the initial field work was complete, we next itemized the invasive plant species identified



Winged euonymus (*Euonymus alatus*) in foreground and English ivy (*Hedera helix*) groundcover in background.

throughout the area of interest. For planning purposes, this area of interest spanned not only the footprint of the Asian Garden but also the isolated wetland to the west and the human created canal to the east of the gardens. Those who have visited these areas may have noticed an abundance of invasive plants. Species identified within the intended restoration area include, among others:

- Multiflora rose (*Rosa multiflora*)
- English ivy (*Hedera helix*)
- Glossy false buckthorn (*Rhamnus frangula*)
- Winged euonymus (*Euonymus alatus*)
- Asiatic bittersweet (*Celastrus orbiculatus*)
- Bush honeysuckles (*Lonicera morrowii* and *tartarica*)
- Norway maple (*Acer platanoides*)
- Garlic mustard (*Alliaria petiolate*)



In addition to the invasive plant communities noted above, it was also apparent that the hedgerow of eastern hemlocks (*Tsuga canadensis*) bounding the human created canal to the south had been compromised by the hemlock wooly adelgid (*Adelges tsugae*). In fact, each time B+T has visited Elm Bank since starting this project, another tree from this hedgerow had fallen. MHS, working in conjunction with a certified arborist, has included the management of these hemlocks as part of the restoration work to mitigate the spread of the adelgid to other parts of the property and for public safety.

Once the initial information-gathering phase of the project was completed, B+T and MHS began to map out the potential permitting path as well as both scope and phasing of the restoration work. With the various wetland resource areas present, it was clear that a permitting interaction with the Dover Conservation Commission (DCC) would be an initial milestone for the effort. Given MHS's desire

Above: Adelges tsugae on live hemlock
Right: Fallen hemlock



to establish a relationship with the DCC, we approached the DCC to better understand their perspective as to how they would apply the Massachusetts Wetlands Protection Act and the Dover Wetlands Protection Bylaw to the project.

On May 26, 2021, B+T and MHS presented at a DCC meeting to introduce the Town to the scope and intent of the project, as well as broader MHS goals for stewardship of the property. A major topic of conversation was whether some of the restoration work could be undertaken as a minor activity rather than filing a full Notice of Intent (NOI), which is a more involved permitting process. We received some helpful guidance from the DCC as to how to frame the project in a regulatory context and opted to pursue a Request for Determination of Applicability (RDA) to initiate the early stages of invasive species removal.

Although an NOI will be required

to realize the full scope of the restoration effort, the RDA provides MHS with a key interim step to mobilize volunteers and begin key management tasks. For example, included with this phase of the permitting process is an opportunity to remove the eastern hemlock (*Tsuga canadensis*) and perform specific invasive management tasks (e.g., hand pulling, weed rakes, etc.).



View facing north towards existing bridge within Asian Garden.

Later phases of the project will include additional management techniques such as the selective use of herbicides. Part of MHS's vision for the project is that the myriad invasive plant management techniques will also function as educational opportunities for those interested in the relationships between native and invasive species. Given the extent and diversity of invasive species in the garden and the canal, there will be ample opportunity to provide training and education throughout the process.

In addition to undertaking these initial management tasks, some additional permitting complexity is anticipated to fully realize the restoration effort. First, MHS will be seeking an Order of Conditions from the DCC to support the remaining invasive species management tasks (this is the permit issued by filing a NOI). Secondly, because the land is leased by the Massachusetts Department of Conservation and Recreation (DCR), the project must undergo further review through DCR's Green Docket process and subsequently be reviewed by the Massachusetts Environmental Policy Act (MEPA) Office through an Environmental Notification Form (ENF).

As noted in its mission statement, MHS "is dedicated to encouraging the science and practice of horticulture and to developing the public's enjoyment, appreciation, and understanding of plants and the environment." B+T is excited to play a role in Asian Garden restoration, and commends MHS for its laudable goal of incorporating native and invasive plant considerations into its existing educational framework.

Olmsted Designed Historic 'Asian Garden' and Canal Landscape – Restoration Concept

James Hearsom, President and Executive Director

Within the guardianship of MHS at Elm bank is an important, MHS Medal winning (H.H. Hunnewell Medal, 1937) garden that has been in a state of disrepair for over 70 years. While MHS has developed area of the surrounding landscape, the scale and cost of the restoration project has prevented any action prior to now. By taking an innovative approach to project delivery, MHS is now in a position to undertake this restoration using an 'action learning-program delivery' development model.

PROJECT OBJECTIVES

MHS's mission is to enable our members and region to be actively engaged in growing together for individual, community and environmental benefits. The overall aim of the restoration of the historic landscape at Elm Bank is therefore to actively engage our member households and tens of thousands of visitors in the issues and practice of re-creating this important historic landscape

We also believe that garden creation is an efficacious method of delivering critical public services including training, rehabilitation, return to employment, mental health, physical health and wellbeing services. It is also a means to support community development and cohesion.

For these reasons, we are not proposing a typical landscape construction/ restoration project comprised of a series of construction interventions and a completed installation to maintain. Instead, we propose a living, developing community project to deliver the public services people need through a participatory garden creation project. In short, we will use this garden development process as the framework for service delivery, environmental and horticultural education, and engagement with cultural and social issues of concern to our community. It will become the 'seed bed and trial plot' of wider community services for MHS to expand beyond the garden itself.

At the conclusion of this process, we will have a gloriously created garden for generations to again enjoy. More importantly, we will leave a legacy in the lives of participants that they have created for themselves, intangible but alive.

PROJECT OUTCOMES

Project outcomes are focused on the delivery process and the lasting legacy that these provide for coming generations through learned skills, expansion and outreach of these programmatic ideas, and the impact on health and wellbeing of our wider community. We will measure and report these as project outcomes. For example:

Conservation	Number of thousand hours of environmental horticulture volunteering. Establishment of an active environmental horticulture group capable of independent skilled landscape intervention projects
Training/Return to Work	Establishment of a training/return to work program or partnership with existing local providers for hard to reach communities. Employment of project interns with structured training. Creation of permanent new jobs.
Research and Archival Support	Historical and Environmental Conservation research groups established and trained. Creation of project documentation and capacity established for future projects offsite
Mental Health	Establishment of at least ongoing partnerships for delivery of horticulture derived therapy programs. Funding obtained for Clinical and Community Director of Horticulture Programs for MHS
Fund Development	Creation of an effective fund development committee for the project as a model for future development and capital projects.
Historic Landscape	Historic Olmsted Bros. Landscape structure restored with designed landscape interventions and restoration of all associated infrastructure.

PROJECT PLANNING AND PHASES

Unlike a tradition design and build project, we are targeting high levels of program activity, not construction milestones. This restoration will be designed to take as much shared input as possible over a much longer period.

PHASE 1: MANAGE AND RESEARCH Permitting completed for return to active management as a garden landscape; vegetation management plans for invasive removal and visual access. Historical, environmental and community research phase. Establishment of volunteer conservation corps and participatory community design groups.

PHASE 2: ACCESS AND DESIGN Create and utilize landscape for human services and educational purposes. Larger scale volunteer interventions in site, participation in professional landscape design, fund development and outreach. Initial access infrastructure funded.

PHASE 3: GARDEN-MAKING Professional installation of critical services. Large-scale community garden creation experiment. Professional training opportunities, delivery of clinical services, educational, health and wellbeing programs. Continued fund development.

PHASE 4: CONSTRUCTION Canal restoration; construction projects (temple/boat house/new infrastructure).

PHASE 5: GARDEN-MAKING 2 Continued creation of gardens throughout total landscape, transition into maintenance and development of living garden landscapes, monitoring and review, exploration of successes and failures, documentation, training and education derived from the experimental process. Support of project spin-outs.

GETTING INVOLVED

This project is designed from the ground up to be participatory to the maximum extent possible. Over the coming weeks the first regular volunteer opportunities will be made available. These will cover a wide range of interests and expertise. In addition to these we are looking for a professional working group to convene, able and willing to provide overall high-level technical input in the key professional disciplines (design, engineering, architecture, clinical services, rehabilitation, etc.). The project is designed to scale over a period of multiple years as operational, program and capital funding is made available. **To assist with any of these please [give](#) and [volunteer](#) through [our website](#).**

"To Cut"



Sassafras hedge, photo by Warren Leach

By Andrew Balon

As arborists, horticulturists, gardeners, or simply plant lovers, we are often too kind to our plants in our gardens. Our ornamental woody shrubs are placed upon a "horticultural pedestal" as we take measures to cultivate them with great judiciousness. Unlike the undesirable weeds that grow at their bases which we often take great pleasure in pulling and tormenting, we personify our woody garden allies and nurture them with care and delicacy. When it comes to pruning,

our hands and pruning shears are at times tentative, clouded with questions of concern.

"Is this the right time to prune?" "Am I making the correct pruning cut?" "Am I taking too much live growth out?" "Will this kill the plant?"

The truth is, plants are resilient! In their "natural" habitat, they have predetermined responses to natural disturbances that prolong and in many ways, enhance their very

existence. Woody plants damaged by winter storms or even wind-thrown trees, will emerge in spring with lush new shoots. Twigs stripped of their buds by browsing animals will have latent buds (dormant buds along the stem that emerge when the plant is subject to disturbance)

Sassafras, photos by Warren Leach



emerge into new growth and act as a plants insurance policy. After a fire, depending on the species, many shrubs will regenerate from roots, rhizomes or even the base of a trunk. This relentless, almost stubborn response by plants is something

humans have taken advantage of since

Neolithic time with a process called "coppice" pruning. The word coppice is derived from the French

word "couper" which means 'to cut'. Either by cutting a shrub

just above the surface and or by felling an entire tree to the ground and leaving a stump,

inhabitants would then wait for sprouts to arise and

harvest them at a specific time pending their intended use.

Coppice sprouts of willow could be harvested within the first year to make baskets or other woven furniture. Sprouts could be left and trained over decades to create sterns for boats.

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Coppice forestry management is utilized in today's economy to produce wood byproducts such as poles, firewood, flooring, charcoal and a multitude of craft products such as utensils, carvings, and garden sculpture (figure A). In any regard,

coppice pruning was and still is one of the most sustainable forms of

permaculture that shaped humanity as we know today. (I highly recommend

reading William Bryant Logan's book "Sprout

Lands" for a deep dive into the history of coppice pruning).

The true fun however is in the garden. One of my favorite woody shrubs, common

smokebush (Cotinus coggygia) is a

vigorous multi-stem shrub that is tolerant of a wide array of cultural conditions. If left to its own devices, its upright growth will reach an excess of 15'-18' offering wispy pink inflorescences in mid-summer



Coppice garden structure created by Spencer Jenkins at the Tower of London. Photo credited to Nigel Dunnett (@nigel.dunnett)



Coppiced Cotinus [coggyria 'Grace'] coggyria 'Royal Purple', integrated into a mixed perennial border design by Warren Leach of Tranquil Lake Nursery. Private Garden

resembling a smoky appearance. The true beauty however lies in the coarse- textured rounded foliage. Multiple cultivars are available ranging from bright chartreuse (Cotinus 'Golden Spirit') to dark brownish -purple (Cotinus 'Royal Purple' ['Grace']) Figure B. If coppiced in early spring (prior to bud break), arrow straight shoots will emerge and reach the height of 8-10' in a single growing season. If reading a label, one may think a large space is needed to support this large woody shrub. Yet, if coppiced in a timely fashion, Cotinus can be utilized in a mixed perennial border offering structure and contrast to neighboring perennials.

Another key concept in coppice pruning is understanding the unique difference between plants that flower on either "new wood" or "old wood". A classic example is the flowering hydrangea species. *Hydrangea quercifolia* (oakleaf hydrangea), forms its flower buds on old wood and are over wintered until the following season. If pruned in early spring, new growth will emerge but inflorescence will be missed. However, *Hydrangea paniculata* (panicle hydrangea) flowers upon new growth. Flower buds are formed in a single growing season and then emerge in late summer. Similar to Cotinus, panicle hydrangea can grow to a substantial size (10'X20' in spread by 10'x20' in height). If desired, coppicing in early spring will result in finer branches with

flowers (pyramidal showy panicles, +-8" long) borne at 6'-8'. There certainly is place in a garden for a mature form but knowing the plants malleable characteristics can offer additional design alternatives. "Dirr's Encyclopedia of Woody Trees and Shrubs" by Michael Dirr is a fantastic resource that provides a comprehensive list of plants that flower on 'new' or 'old' wood.

My own experience with the benefits of coppice pruning was brought upon necessity. My house is set back from a busy, salt laden state road where the sound of passing vehicles and tractor-trailers can be at times deafening. Some fourteen years ago, nothing stood between my front door and two lanes of asphalt but a stretch of grass. A fence would

not do and I combed through my horticultural knowledge to find a



Top: Latent buds, April 15
Bottom: 2' of vegetative growth, June 10



plant that would be resilient to the harsh cultural conditions. My list for a fast growing, salt tolerant, deer resistant and affordable evergreen species left me with a blank page. A good friend and horticulturist recommended common sassafras (*Sassafras albidum*), [Sassafras albidum is one of three extant species in the world today. It is] a native tree known for its deep green mitten shaped or 3-lobed leaves that turn shades of yellow, orange, to purple in the fall. In its juvenile form, the stems are bright green and offer year round interest. It can form extensive thickets to large specimen single stem trees. The national champion resides in Kentucky and is a whopping

78' by 69' with a total circumference of 283". To no fault to its ornamental charm, it is often not utilized in the landscape due to the difficulty in transplanting and its relatively low availability in the nursery trade. On paper, this had its challenges but it was worth the experiment.

I purchased 60 bare-root saplings from Heritage Seedlings (a wholesale propagation nursery in Oregon) and spaced them roughly 2' on center in early March. Within one growing seasons the plants reached 4' in height and quadrupled in size within the first 3 years. The road, noise and blank space all disappeared!

Over the years the plants continued to mature and stretch, leaving a leafless gap in the lower half of the canopy. To regain the screening the plants were coppiced to 3' in late March, almost four years from the day of planting. Within one month, hundreds of buds began to break up and down the stems. By the end of the season, the trees were over 10' tall showing off their fall splendor. The process has since been completed three successful times. The resulting stems have been used for fodder for my neighbor's livestock and even weaved into an outdoor garden space for my daughter. With the anticipation of spring, plan and prune. Do not be afraid "to cut!"

Andrew Balon is a practicing ISA Certified Arborist with the Bartlett Tree Experts out of Waltham, Massachusetts. He is an avid horticulturist, lecturer and volunteer weekend farmer at Butterfly Farm in Lincoln, RI.

Anticipation

By John Lee

In April, we hominids still remember the warmth of the winter sun reminding us that spring is yet to come but now, as the days lengthen, it is time to 'get ready'. Like it or not, spring is on the doorstep.

The first crocuses are up as are the snow drops in the protected south and east facing corners. Any day now, however, winter will come back to temper our enthusiasm because April 'is the cruelest month' said T.S.Eliot. So, it may not be quite time to change out the snow boots for muck boots, snow pants for overalls even if the germ of anticipation is taking root and is not to be denied. Usually right about now, Lucille down the road would start to cut back her now too leggy ten-year-old geraniums that she has cherished through so many previous winters on her home-made 'sun porch'. In a week are so they will be up-potted into five-gallon containers – that's how long she has kept these babies of hers alive and well. Her husband, John, has kept her in manure tea all winter which he has stored in the cow barn. He's hoping the cows will be out on grass before he runs out of hay. If it has been a good sugaring season he can hope to have made and sold enough syrup and wet sugar to pay the property



Seedlings in spring

taxes and 'keep the wolf from the door' – another anticipatory moment.

Still, it is the tail end of mud season, the sap run is finishing up and for those who tap, they may have made a quart or two of 'fancy' for their griddle cakes or waffles. Ice-out is over and seed orders are dribbling in. Like fishermen who fawn over their flies, we sort and re-sort the seed packets fully cognizant of the fact that we already have too much of too many to plant this spring or for later late-season (hope-for-a-late-frost) plantings. Who could possibly resist that extra ¼ ounce of something new to test? Then there's the question of where to plant what. We have noticed this year, unlike any previous that we remember, we have a new and burgeoning wetland at the foot of our garden and that our various vernal pools were not vernal in 2021 – we have had standing water in all our lowlands since last year. If we have a 'normal' spring, perhaps we should

forget the lettuce and concentrate on a couple of strains of paddy rice!

Of course, we do live in New England where the weather is famously, almost criminally, unpredictable. Therefore, in the face of failure, we should proceed as usual - fill the seed trays and hope for the best. It is at least too early to anticipate the vagaries of our weather and, in any case, fool-hardy to plan for a monsoon summer; drought is equally anticipatable. If it has not been done already, prepare the seedling mix, prepare and fill the seed flats and/or plug trays and begin to calculate the number of days to setting out (and then planting) outdoors. Even this primal act of self-care



Lilac buds

and responsibility brings a certain lightness to a winter- weary soul as the days lengthen and the gardens seem more welcoming. Soon we will count the days until the first lettuce harvest just ahead of the early asparagus and rhubarb if the transplants are sufficiently vigorous. It will be race greatly anticipated because soon thereafter, the earliest tomatoes will begin to ripen and our salads will start to become a feast for family and friends. The anticipation of a bountiful harvest certainly eases some of the seasonal insecurities of being too early or too late. But can the weatherman be trusted?

Bert and Brenda down the road the other way had the spring planting conundrum all worked out. Like every Yankee with a homestead, they nursed a couple of ancient foundation lilacs along every year so they would know when to plant what. Their lilacs were their garden oracle and they both swore that they were absolutely infallible. As it turned out, they were pretty much right. Their gardens were the envy of the neighborhood year in and year out. They had no truck with the TV weathermen whatsoever. Their lilacs did not prognosticate or pontificate about satellite imagery but they tell them when to do what in the garden. They knew that their lilacs could and did anticipate when it was the best time to get in the ground at their house. Bert always said, were he to be asked, that when the first lilac leaves were

as big as a mouse's ear, it was time to sow the hardier early plantings of peas, lettuces and spinach as well as hardy annuals like calendula and sweet alyssum. When the flower spikes begin to fade, it was safe to plant corn, tomatoes, potatoes, marigolds and geraniums. A few of the neighbors who were recent arrivals tended to roll their eyes when hearing Brenda expound on the wisdom of lilacs but after a few years, they learned to keep a keen eye on Bert and Brenda. When they were ready to get in the garden, everybody in the neighborhood should be ready to plant whether or not they had an oracle lilac in their cul de sac. Of course, Bet always did a second planting of peas despite the wisdom of his lilacs. He also knew that peas planted in cold soil will yield less peas per pod than peas planted a

couple of weeks later in warmer soils. The first crop of peas were for the table; the second planting was for the freezer.

Suffice it to say, global warming has not changed such phenologic wisdom nor is it latitudinally indexed. Lilac learning was as valid in Bert and Brenda's garden as it was in their nephew Ernie's garden a hundred miles north. That was why you need not depend on those TV weather people with their fancy map who simply could not know about everybody's micro-climate. So, who needed them? Having such an unerring font of knowledge right outside the front door took a lot of the angst out of trying to figure out when to plant thus tending to soften the cruelties of 'the cruelest month.' While Eliot may have been

expounding on growing lilacs in The Waste Land (1921) as Europe crumbled, we, the more fortunate, can still mix memory with desire and look toward a season of plenty in our gardens under the aegis of one of iconic lilacs famed in poetry and fable.

John Lee is the recently retired manager of MHS Gold Medal winner Allandale Farm, Cognoscenti contributor and president of MA Society for Promoting Agriculture. He sits on the Governor's Food Policy Council and UMASS Board of Public Overseers and is a long-time op-ed contributor to Edible Boston and other publications.

Phytoremediation In A Landscape Near You

By Cris Blackstone

Last month, phytoremediation was introduced with an overview, and a brief introduction to work in an internationally recognized lab at the University of New Hampshire, Durham campus. Now, we will see what developments are on-going in this important aspect of landscape architecture and land stewardship in Massachusetts. There is likely a phytoremediation project implementing phyto-concepts not far from where you live or work in the Commonwealth.

Driving on I-95 approaching Boston from the North, there's the iconic Hood smokestack, near the Bunker Hill Community College and nestled in with the Schrafft's Candy Central Headquarters – all visible from the highway, but it's not until you wend your way off the highway and drive along Rutherford Avenue that you see what is going on now in that neighborhood. The Hood Dairy facility has a rejuvenation with condos, apartments, a bicycle store and cafes, restaurants and a spa. How does this development factor in with our interest in phytoremediation? Checking with the project's landscape architecture design company leads



Here, a close up of a storm water collection basin, using the ability of plants' root systems, to help capture water, slow it down, and divert it from asphalt, we see phytoremediation in another facet of plants used to mitigate human uses of a space.

to meaningful details which will help you appreciate this project more meaningfully.

Discussing the plant-based remedy for pollution from air, contaminated soil, and stormwater runoff with Kate Kennan, Registered Landscape Architect, owner of Offshoots Inc, and professor at Northeastern University, you can quickly get a grasp of what's involved in phytoremediation as you explore what's going on at 500 Rutherford



Lilac buds

Ave, Charleston, MA. Kennan's team tackled the site with a vigor which has grown throughout her career. The Hood Bike Park embraces urban elements with a Boston practicality, and with elements blending the built environment with nature, there's a distinct "neighborhood" feeling to the area.

One problem tackled by phytoremediation techniques and mindset was to block sound pollution from the highway above the former Hood facility, along with the airborne pollution from the I-95 traffic. This was accomplished by creating an alluring pathway up the manmade hill, lined with trees on the top which will only serve more and more effectively as they mature, to block the full view of the highway. Trees in buffers mitigate gas and oil, a common phyto-solution, are seen in many of the projects in Massachusetts, the US and around the world, to tackle this problem caused by human habitants. (Consider it's estimated that in 2010 the Environmental Protection Agency estimated 17 million gallons of gasoline were wasted, being spilled while filling residential lawn mowers!)

The Hood Park neighborhood includes many types of plants in the landscape design which will help build the soil to be in better condition over time and at a cost vastly lower than removing questionable soil and capping. Additional

phytoremediation solutions are seen in water purification design elements along with plants to slow the stormwater runoff to a manageable rate. Kate Kennan is quick to explain that using phytoremediation when water quality improvement is the goal, is the easiest way the plants can be designed and installed with phytoremediation goals.

To learn more about this process from Ms. Kennan, you can go to her book, co-authored with Niall Kirkwood, *PHYTO: Principles and Resources for Site Remediation on Landscape Design*. This is the premier book on the topic, and while a textbook, the story behind the book is fascinating. The idea for the book grew from one of her first projects, to reconfigure an abandoned gas station in Barnstable on Cape Cod in 2005. As she worked on this and grew familiar with the soils and building itself, and discussed the project with Kirkwood, at Harvard at the time, they jointly realized that the full thought process about phytoremediation (consider curated collections of plants to be the workhorses tackling specific pollutants to be remediated) needed to be shared in book form, filling that niche in material available to landscape architects and affiliated ecologically-minded professionals. If an extensive book is not your style at this time, read "Pollutant Purging Plants" September 2015, published and archived on the Ecological Landscape Alliance website.

Common pollutants, their sources and design remedy solutions are extensively reviewed in that article. The drawings showcase common site problems and how vegetative buffers "cure" (even if slowly, over time as the plants mature) common pollution sources' effects on a property.

Heritage Corridor. Through a project as a collaboration between the Massachusetts Department of Environmental Management (DEM), and plant and soil scientists with environmental microbiologists at UMass Amherst, organic chemicals in the sediment built up and settled



Kate Kennan, Registered Landscape Architect and founder of Offshoots, Inc, in Boston is also a full-time professor at Northeastern University. Her courses include "Plants, People + Landscape Change" which includes in the field study, lectures and class discussion, how "human activity, land use and settlement patterns all influence the development of a landscape," making it easy to see how Kennan's work in phytoremediation is all-encompassing and well-rounded.

Preceding Kate's work and starting her company, Offshoots Inc (located across the street from the Hood Park project) in 2001, UMass Amherst scientists were involved in using native plants to restore lands which had been polluted by water-powered cotton spinning mills in the late 1700s. Sediment in the Blackstone River watershed from south central Massachusetts to Rhode Island, had hindered its beauty as a National

over many decades, would be tackled with expertise in phytoremediation. Key distinguished scientists and academic professionals involved at that time were Baoshan Xing, Klaus Nuesslein and Guy Lanza who served as the leader of the Blackstone research project. News in UMass Amherst's archives can offer you several articles following this story and the project. As you travel in Massachusetts, along the



In Charlestown, adjacent to Bunker Hill Community College, at the Upshoots Inc project, the renovated, multi-use project on the former Hood Milk Dairy bottling site, you can see many areas relying on phytoremediation to improve the site for residential and open space park areas. Here plants and trees are used in a man-made elevated garden area to calm and capture airborne pollutants.

Blackstone River and appreciate the scenery you see now, know that at various key locations on the river, the effects of the mills' use of chemicals over many decades, have been reversed by phytoremediation made possible by grants and research conducted by scientists, professors and graduate students who by now are contributing to this field, more important than ever.

Within the curriculum of Phytoremediation coursework offered at the Stockbridge School of Agriculture, we see subtopics included such as how plant anatomy and cell structure contribute to various plants' uses in field work to absorb or dissipate contaminants. Toxic pollutants included in the syllabus spark imagination, creativity and even cause concern

related to today's world. Students in this course are studying Plant Biomass, societal impact, public perceptions and concerns. There's a use for phytoremediation in sites contaminated with explosives, which you may not have thought of as you look around your neighborhood and think of the airborne or waterborne contaminants. Still, phytoremediation can be appreciated with its worldwide implications including how to absorb salt and help create land able to support food crops. Many uses, many angles and many professional viewpoints are needed to help fund and support research and real-world applications of phytoremediation.

From private landscape firms such as Offshoots and Kate Kellen sharing and promoting phytoremediation

with the Northeastern students, to the western part of the state, at UMass and its continued work on phyto-research, we need to pause and see what applications understanding phytoremediation can have on small scale (think homeowners) places and potential projects. Northeast Organic Farmers Association (NOFA) Massachusetts branch has produced several workshops and interviews online recently.

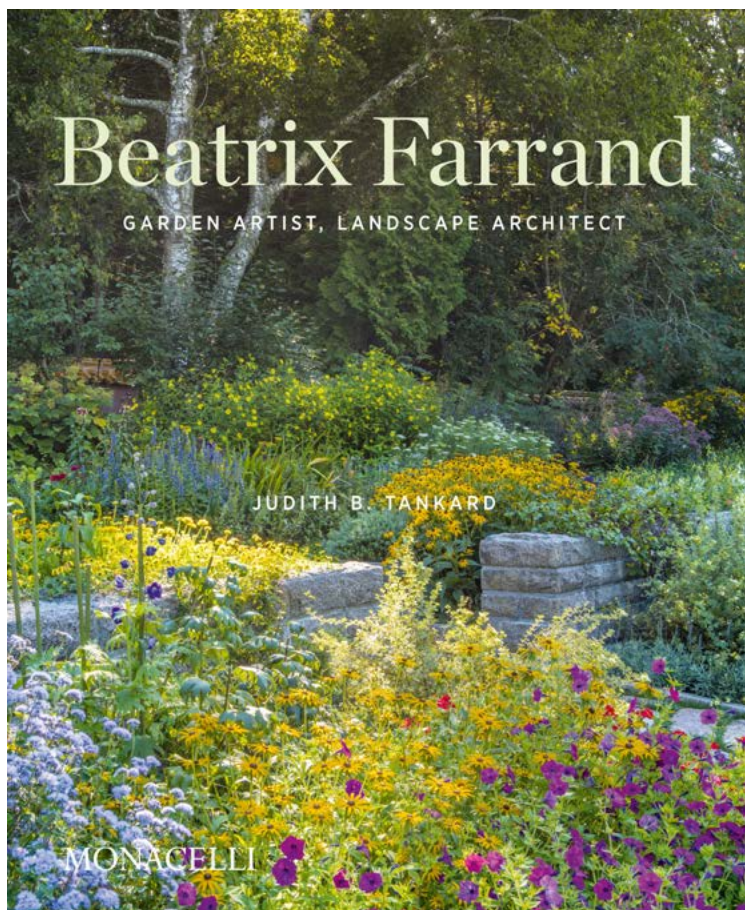
Andrew Laurian is NOFA-MA's Bioremediation Coordinator, with a focus on soil health. Look at a recorded presentation of Laurian's on the urban garden projects in Springfield, MA, to learn the approach taken on sites which had previously marginalized soils and now becoming community garden locations. For that information, take time to watch <https://youtu.be/c2as6leUvsl>. This is titled Bioremediation of Urban Soils, introduced by Dora Miller, of NOFA-MA. From in labs, to in communities both newly built to newly remodeled, plants are offering many answers and solutions to human interaction which may have had a negative effect on the environment.

Where can we learn more about this – so far, we see commercial, academic, private and informal interest and uses of plants in

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phytoremediation. What does the government suggest or research about this topic? Check www.epa.gov for the "Phytoremediation Guide" offered on that website. It's a two-page overview and synopsis of this technique and applied uses. You may find it helpful if you are involved in a municipal or community charette developing ideas for a project area in your community. With considerably more detail, the Environment Protection Agency's CLU-IN (Contaminated Site Clean Up Information) site has extensive recorded and archived presentations and lists of projects where phytoremediation may factor in the evolution of these sites.

In conclusion, know that plants offer so much more than beauty, habitat for all forms of wildlife, food sources, and help in mitigating overheated city streets. Plants are able to help change the course of derelict or endangered land, to create more beauty, healthy habitats and places to grow food. Plants helping plants, plants helping us. Phytoremediation is only growing more and more important the more we learn and the more we continue to want to know. Throughout history, we've turned to plants for medicine and healing, and now in 2022, it seems understanding plants' full spectrum of capabilities to heal and repair soil and the environment is ever-present.



248pp. Monacelli Press. \$60.00
By Judith B. Tankard

Reviewed by Patrice Todisco

The earliest American woman to maintain a successful landscape practice, Beatrix Farrand was an intensely private person of many contradictions. Born into a prominent New York family, she chose a professional rather than a society career. Despite considering herself a landscape gardener, at twenty-seven years of age she was the only female founder of the American Society of Landscape Architects, becoming the first woman to bridge the gap between the world of garden design and landscape

architecture, a profession dominated at the time by men.

Published to coincide with the 150th anniversary of Farrand's birth, *Beatrix Farrand: Garden Artist, Landscape Architect* chronicles her life and work. Written by landscape historian and preservation consultant Judith B. Tankard, it is an updated edition of the 2009 monograph of the same title and is illustrated with archival images, plans, watercolor renderings by Farrand and updated

photographs of her projects in full bloom. Thoughtfully designed, comprehensively researched, and elegantly written, it is a fitting tribute to Farrand's life and legacy.

Descended from five generations of gardeners, Farrand was fond of gardening, passionately interested in plants from an early age, and preferred outdoor pursuits. Among her family's many influential friends was Professor Charles Sprague Sargent, the first director of the Arnold Arboretum in Boston. Inspired by a trip to the World's Columbian Exposition in Chicago with Sargent and his wife, she began

to think seriously about landscape gardening as a profession. A year-long course of horticultural study under Sargent's tutelage was arranged, followed by a tour of European gardens.

Embarking on a career in landscape gardening was a different matter and Farrand embraced the challenges with pragmatism. "My friends looked upon my studies at first as a sort of mild mania," she is quoted as saying, "but they have learned now to regard them seriously." She set up a studio on the top floor of her mother's house in New York City in 1896. Commissions soon followed facilitated by family connections including those of her aunt, Edith

Wharton and Boston architect Ogden Codman Jr.

Within four years, Farrand established herself professionally with the novelty of her career choice becoming secondary to her talents. Between 1901 and 1913 she completed forty commissions ranging in size and scope, including complex estate planning for wealthy clients. While little of her work during this period survives, the two that do include Bellefield, the Hudson River Valley private family retreat of her cousin, Thomas Newbold, and the rose garden at the New York Botanical Garden. Tankard devotes a chapter to their creation and restoration.



Rose Arbor Chubb, courtesy of Environmental Design Archives, Beatrix Farrand Collection (1955-2), University of California, Berkeley

A garden of Farrand's that has survived virtually unchanged is the Abby Aldrich Rockefeller Garden in Seal Harbor, Maine. Described by Tankard as the culmination of Farrand's talent, the garden combines the elements she cherished, "a woodland setting, native plants, breathtaking flower borders, handsome architectural features, and sympathetic clients." Designed over a ten-year period in collaboration with Mrs. Rockefeller, it is one of fifty she designed in the Bar Harbor area, where as a child her love of horticulture was nurtured and as an adult, she chose to affirm her legacy at Reef Point where she and her husband, Max, moved in 1941. While Farrand's vision for Reef Point as a landscape study center and garden featuring native New England

flora failed, she spent the last three years of her life at Garland Farm, just six miles away.

Perhaps the project for which Farrand is most remembered is Dumbarton Oaks the Washington, DC home of career diplomat Robert Woods Bliss and his wife Mildred Barnes Bliss. Bequeathed to Harvard University as a research institute, library, and museum, the gardens are

portfolio included more than two hundred commissions, including the design of college and university campuses at the University of Chicago, Princeton, Yale, and Occidental College. The first woman to be hired by a university in the role of landscape consultant, her work for educational institutions was a source of pride for Farrand, harkening back to the social consciousness imbued in her in childhood.



Rockefeller Rose Garden at NYBG, photo by Mick Hales

considered among America's finest. At the apex of her career when she began the design of Dumbarton Oaks, the project was completed in phases with Farrand's involvement spanning nearly thirty years including the transition from a private estate to a public institution.

In her fifty-five-year career Farrand's

In 1959 an autobiographical statement Farrand wrote was published in the final issue of Reef Point Gardens Bulletin. In it she describes her life as a happy one, expresses gratitude for what had been given to her, and thanks friends and associates for their affection and the privilege of their guidance. She



Rockefeller Maine, photo by Larry Lederman

Beatrix Farrand: Garden Artist, Landscape Architect concludes with a comprehensive list of Farrand's commissions and gardens open to the public. It contains an extensive bibliography, revised to include articles and books published in the last ten years.

Listen to Judith Tankard speak about [Beatrix Farrand: Garden Artist, Landscape Architect](#) on Thursday, April 7, 2022, at 2:00 p.m. through the Garden Conservancy.

mentions the 'fortunate and chance meetings' throughout her career that led to her success. Various honors are listed including the Massachusetts Horticultural Society's Gold Medal.

How lucky we are that in Beatrix Farrand: Garden Artist, Landscape Architect Tankard has shone a light on the many facets of Farrand's life that she herself did not overtly share, including the magnitude of her talent, deep commitment to her profession, work ethic, profound knowledge of horticulture, and accomplishments. I'd like to think that it was not a chance meeting that led Tankard to pursue her research into the story of the gifted Farrand, whose trailblazing career opened the doors to women in landscape architecture.

Patrice Todisco writes about parks and gardens at the award-winning blog, Landscape Notes.



Beatrix Farrand in California in 1943, courtesy of Beatrix Farrand Society Archives

From the Stacks

By Maureen T. O'Brien, Library Manager

A true portrait should, today and a hundred years from today, be the testimony of how this person looked and what kind of human being he was.

Philippe Halsman (1906-1979)

The invention of the printing press and engraving in the 15th century enabled the reproduction of multiple copies of an image. Not satisfied with the printed copy of their book, people began to “extra-illustrate” their books by adding extraneous pictures from other books such as portraits of the authors and illustrations that they thought illuminated the text. Publishers would often print their books with extra pages to allow for extra-illustration, referred to as grangerizing, named after English clergyman James Granger (1723-1776). This practice destroyed thousands of important antique books.

Grangerizing portraits lead to a popular 18th and 19th century hobby of the upper classes—collecting “heads,” i.e., portraits, a specialized offshoot of extra-illustration. In 1769, Granger turned his hobby of collecting “heads” into a multi-volume work entitled *A Biographical History of England, Adapted to a Methodical Catalogue of Portraits*. These unillustrated volumes,



Well-worn cover of a Member Album and two pages inside.

categorized engraved portraits into 12 classes, ranging from royalty to the “lowest Order of the People, remarkable for from only one circumstance in their Lives, namely, such as lived to a great Age, deformed Persons, Convicts, &c.”

Featured Collection – Archives: Member Portraits

In 1827, Joseph Niépce (1765-1833) took the first photograph in France. That process, however, required an exposure of 8 hours. In 1839, Niépce’s partner, Louis-Jacques-Mandé Daguerre (1787-1851) introduced the “Daguerreotype” that produced a sharper picture and took

only a few minutes to develop. In the 1860’s, photographic processing improved greatly, became less expensive, photographs were clearer and multiple paper copies could be made. As a result, people started collecting and sharing photographs on a large scale, and photograph albums became popular.

We are often asked if we have images of important people in horticulture. The simple answer is yes. The Society began its own collection of heads—that of its members—during the carte de visite craze of the 1860s. We have 586 photographs of members in six carte de visite Victorian albums.

Thank you to Anita Blaine-Dzialzo for recording the photographs in the albums. You may find the research aid [here](#).

Speaking of heads, we have updated our inventory of Society portraits with images and additional information that you can see [here](#). Thank you to Jennifer Wilton for the photographs, research and editing, Maureen Horn for research and editing and Kathleen Glenn for the final review.

Flower Markets of the World

This month we feature the mail from the Netherlands [here](#).

In the Windows – Books on Bulbs & Books for Sale

The Library has used horticultural books for sale, most in the \$1 to \$5 range. Consider dropping by and picking out a book for yourself or for a gift. Second-hand gifting is an environmentally friendly way to reduce your environmental footprint. Used books fit that bill perfectly!

Our Collections are Growing...

Thank you to Sally Muspratt, Sarah Cummer and Morgan Arboretum for their donations in kind.

Support our mission by donating a book or two to the Library from the Society’s Amazon Smile Wishlist. Many of them are reasonably priced children’s books. Make sure you leave your name and we will thank you in the next Leaflet. Then come to the Library and borrow some books—one of your membership benefits! Borrowing books from a Library is a great green way to reduce your consumption.

Come Visit...

The Library is open by appointment and when the lights are on. Please email Library Manager Maureen O’Brien mobrien@masshort.org for an appointment if you want a scheduled visit.



The Garden at Elm Bank
Open April 1-October 31
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