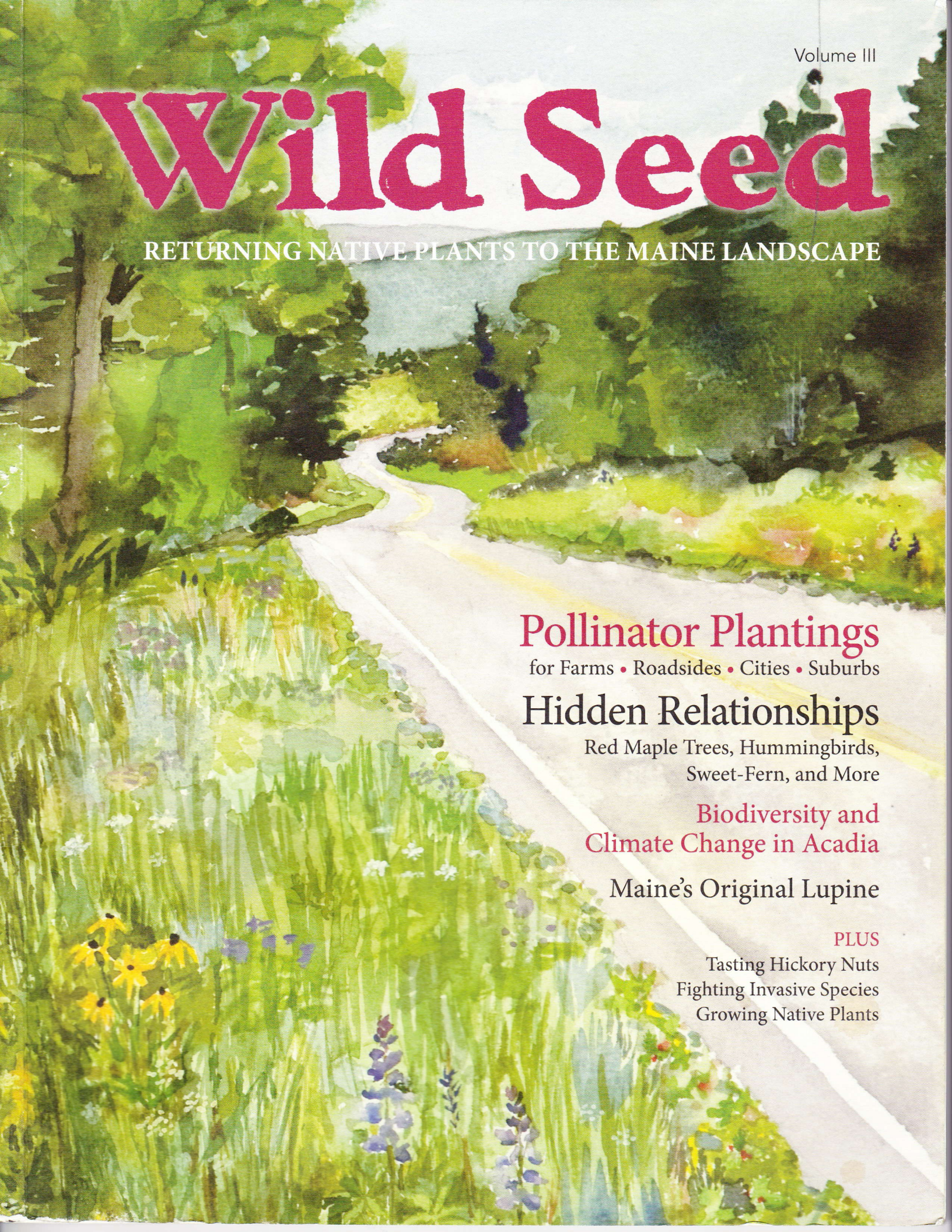
Volume III

Wild Seed

RETURNING NATIVE PLANTS TO THE MAINE LANDSCAPE



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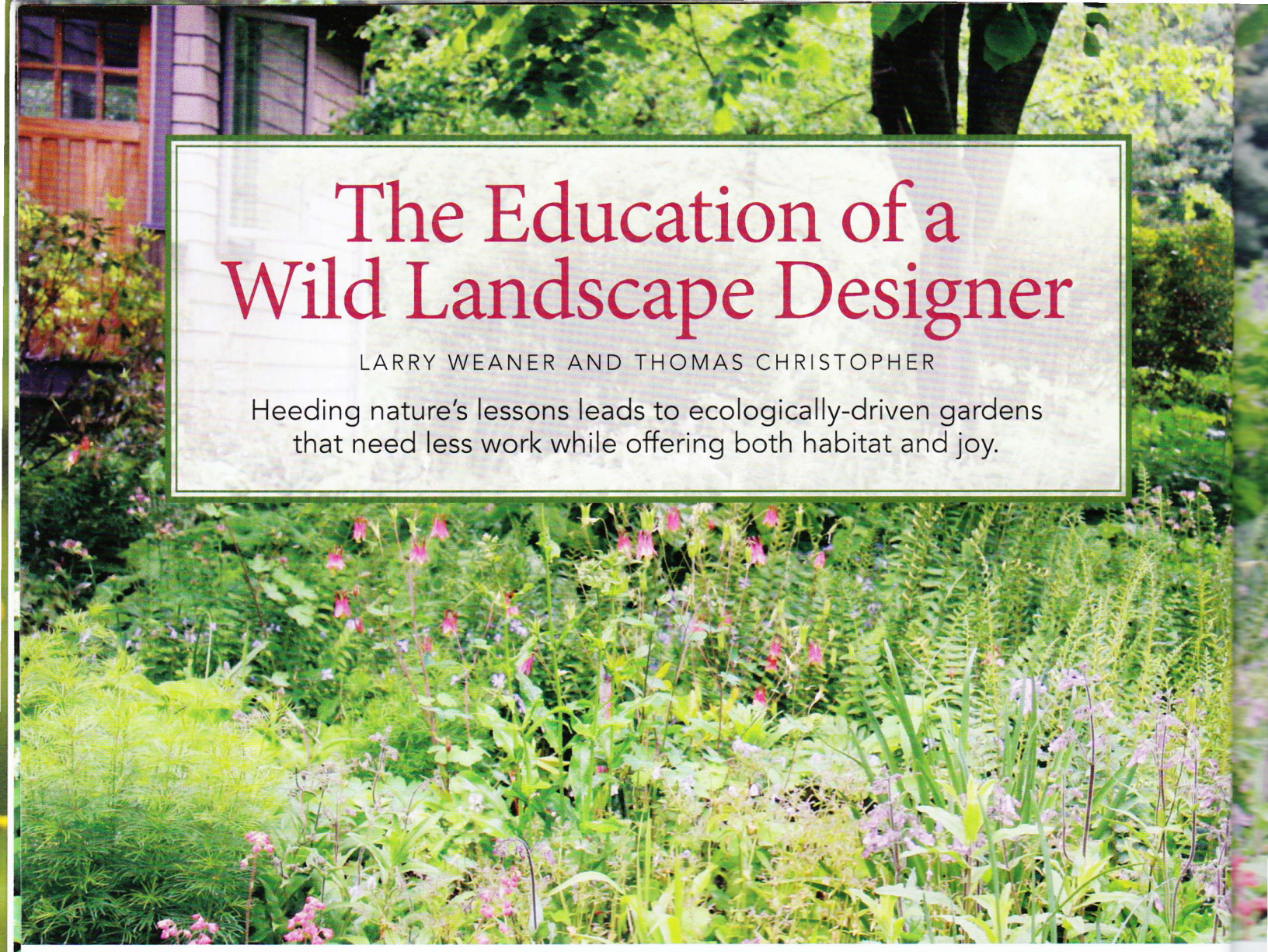


The Education of a Wild Landscape Designer

LARRY WEANER AND THOMAS CHRISTOPHER

Heeding nature's lessons leads to ecologically-driven gardens that need less work while offering both habitat and joy.

My training as a gardener and as a designer was strictly traditional. What I learned from my teachers, and practiced after I graduated college and started my own business, was converting the landscape into "compositions": Static, man-made arrangements of vistas and garden rooms. In this, of course, I was no different than most of the designers of my generation. Over time, however, I learned a different kind of gardening, one based on ecological principles. For this I had the very best teacher, for I learned this new kind of gardening largely from my experiences with the land itself, from observing and gradually learning to understand what I saw.

This wasn't a sudden conversion. The lessons kept coming, but initially I didn't understand them. I remember, in this regard, the very first landscape design of my own that I ever created and installed. This was in my parents' postage stamp-sized yard on the outskirts of Philadelphia. One of the plants I used in this design was Eastern red columbine (*Aquilegia canadensis*), whose delicate foliage and flowers I had come to admire. I wasn't happy with how it performed, though. The columbine couldn't compete with the plants I had placed around it and soon died out.

That was a disappointment. What was almost worse, though, from my perspective at the time, was that the columbine further disrupted my meticulously arranged design by spawning a host of seedlings that sprang up in openings throughout the garden and a gravel path. This actually was a lesson, though I wasn't ready to learn it at that point. Instead, I simply avoided columbine for a number of planting seasons thereafter. I had observed, in other words, but I hadn't understood.

In one way, my experience with columbine exemplifies a problem with traditional gardens. Most of the traditional gardener's time is devoted not to making things grow but to keeping things from growing. These things include weeds, of course, but even the species the designer has chosen to include can become enemies if they sow seed and perhaps find a spot they like better

Facing page: Eastern red columbine readily seeds into gaps in the garden where other plants are unable to grow. Photo by Larry Weaner.

Above: In this groundlayer composition, the vigorously spreading, yellow-flowering golden groundsel *(Packera aurea)* will outcompete other plants over time. Photo by Heather McCargo.

Left: Columbine in this garden occurs wherever there are small gaps not occupied by other plants. Over time, as the more long-lived perennials fill in the gaps, the columbine will phase out. Seeds of the columbine will remain present in the soil, however, such that whenever a gap opens up in the garden, the columbine and its beautiful flowers will reemerge. Photo by Heather McCargo.

Those plants knew better than me where they were most adapted to grow, yet with my dictatorial vision and a weeding fork, I had prevented them from using that knowledge.

than the one they were allotted. This, of course, had been the case with the columbines in my parents' garden. Those plants knew better than me where they were most adapted to grow, yet with my dictatorial vision and a weeding fork, I had prevented them from using that knowledge.

That is what the columbine had done. But its lesson was more fundamental than that. It wasn't until the middle years of my career that I began to understand what was happening with this plant. I gave it another chance and planted it among other plants in a garden I was installing. Again, the columbine failed to compete successfully with its neighbors, and soon disappeared from the locations in which I had set it. And again it spawned a host of seedlings, this time forming a solid cover in a gravel apron that surrounded the house.

By now, I was far enough along in my education that I saw this as a plus. More importantly, I finally understood. I understood what these events said about the nature of the plant. Columbine is not a robust competitor. Instead, it thrives by successfully inhabiting dry and gravelly places, ecological niches too adverse to promote the growth of other plants. Indeed, I once saw a single columbine growing out of a crack in a concrete bridge abutment.

Now I was connecting the dots, but there was one more step awaiting me in the learning process: How to apply what I had observed and come to understand. In the case of columbines, this came when I was landscaping my own yard. I planted columbines in it, now fully expecting them to prove ephemeral in those locations. That was fine. They

would hold the space while the slower growing, more competitive plants were coming along. However, I also counted on these initial plantings to spread seed around, so that when the original plants had died, their progeny would live on. When gaps appeared in my other plantings because of adverse conditions, I knew the columbines would spring up and plug them. The columbines would out-compete the weeds where other desirable plants will not grow. They were essentially operating as they had years before at my parents' house, but this time their colonization process was not a problem but part of my garden plan.

An annual late-winter mowing around the gray dogwood shrubs and interspersed trees has allowed this recruited meadow to persist for years rather than revert to forest, as would normally occur in ecological succession. With time, native goldenrods and asters have emerged to complement the little bluestem grasses. This is an entirely recruited landscape, created not by planting but through observation of existing vegetation and an understanding of the processes of ecological succession. Photo by Larry Weaner.

In this way, I completed the learning cycle: I observed, I understood what I observed, and I incorporated what I had understood into my practice. In other words, it isn't enough to simply look at nature. You have to ask why it is the way it is as well. What's more—and this is crucial—because every ecosystem, including your back yard, is constantly evolving, you have to try and understand where it came from and where it is going.

Reclaiming a Meadow

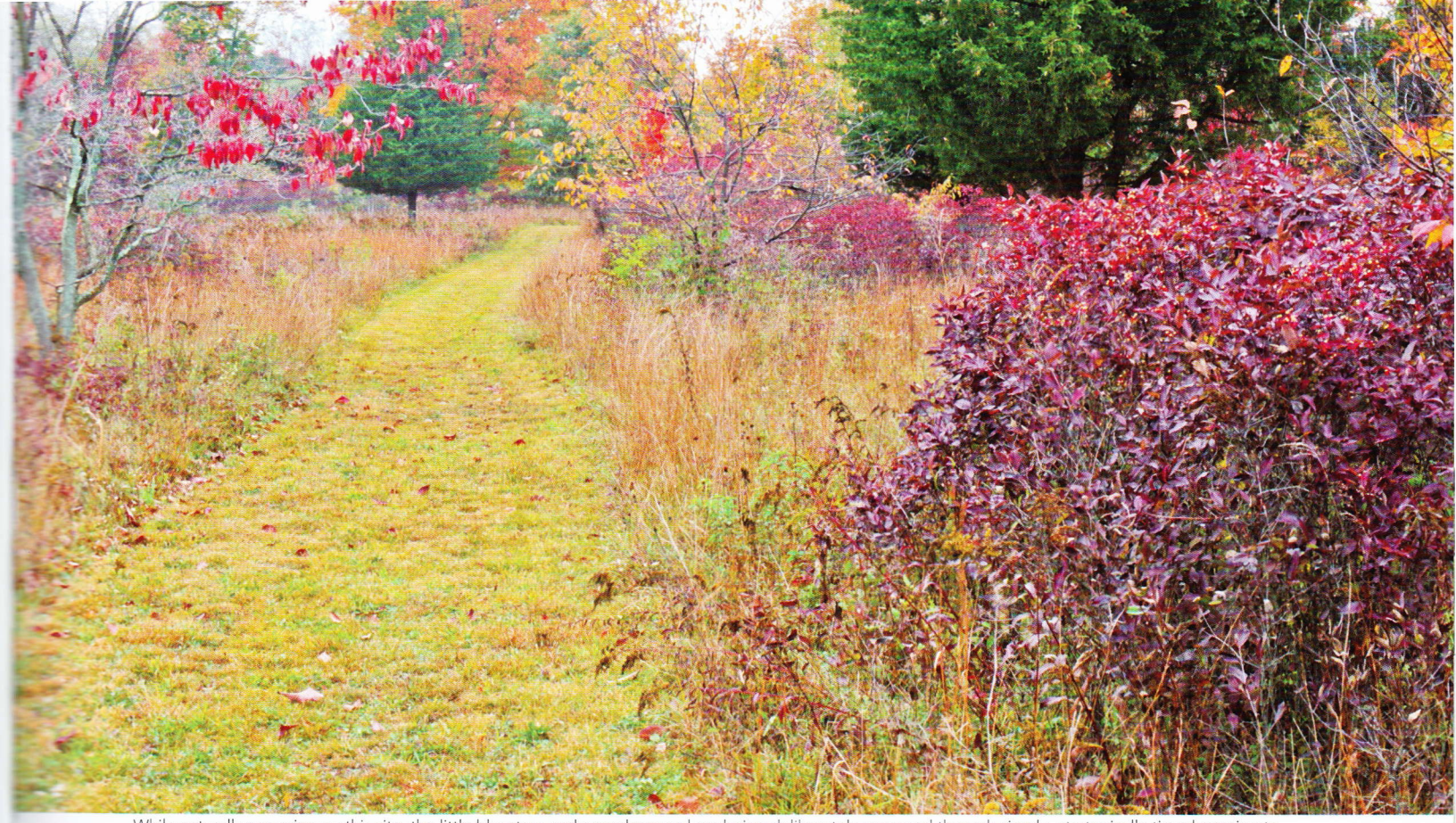
Let me illustrate this last principle, and a way in which the ecological design process can develop, with the following case study:

Sometimes, when you are very lucky, the best results require relatively little effort. That was the case in a meadow I created in Dutchess County, New York. In fact, my greatest contribution to the success of this project lay in what I didn't do.

The site was a woodland opening on an extensive property in Dutchess County, New York. The house was an historic recreation, and the garden immediately surrounding this was a carefully orchestrated display of beds and borders. What I was brought in to take care of was a large woodland opening a short walk from the house, a full 14 acres in size. It was an example, successionally speaking, of advanced old field succession, with relatively little herbaceous plant material and perhaps 95% of the area covered with gray dogwood (*Cornus racemosa*). This is an attractive, if large, shrub that reaches a height and spread of 15 feet, and which bears bunches of white flowers at the twig tips in late spring followed by small white berries; the leaves turn purplish red in autumn, dropping away to reveal the colorful red stems. But the owners of the landscape wanted an open place to stroll and enjoy vistas, not a dense brush patch or just more woods—which was what, if left alone, this opening would turn into in a few years.

The obvious response was to kill and remove the shrubs and plant a meadow. Fortunately, I had closely examined the site and found in the small surviving areas of herbaceous plants some remnants of little bluestem grass (*Schizachyrium scoparium*), one of our most attractive native meadow grasses. Prized for its blue summer foliage, fluffy silver flowers, and orange fall-winter color, its presence suggested that prior to the proliferation of the gray dogwoods this area had been a little bluestem meadow. The presence of this native grass also suggested that this area, back when it had been some farmer's field, had never been plowed but more likely used for grazing, because plowing would have eliminated any native remnants such as the little bluestem. When I checked the soil, I found that it was shallow, with rocky ledge close to the surface in many spots, which would have made this area unsuited to plowing and cultivation, and reinforced my belief that the only man-made disturbance to the meadow vegetation on this site had been the pasturing of grazing animals.

I didn't want to remove all of the gray dogwood, which in addition to its aesthetic appeal provides good cover for birds as well as material for framing views, creating focal points, etc. The goal became rolling back the successional clock to a very specific point in this field's past when the cover had been less dogwood—perhaps 15 percent—and more (85 percent) little bluestem and associated wildflowers. The means I chose for accomplishing this was carefully scheduled mowing. I marked the areas where I wanted to preserve the dogwood, and then had the rest of the area brush-hogged. This was a low-impact process; the brush-hogging was accomplished by one elderly man with an aged Gravely walk-behind tractor and a rough



While naturally occurring on this site, the little bluestem and gray dogwood are being deliberately managed through simple, strategically-timed mowing to create a dynamic shrub-meadow matrix that is both ecologically functional and beautiful to walk through. Photo by Karen Bussolini.

mower—you could follow his progress through the brush by the sound of the mower interspersed with "clunks" followed by loud profanity as the mower found another of the rocks that had saved this field from plowing.

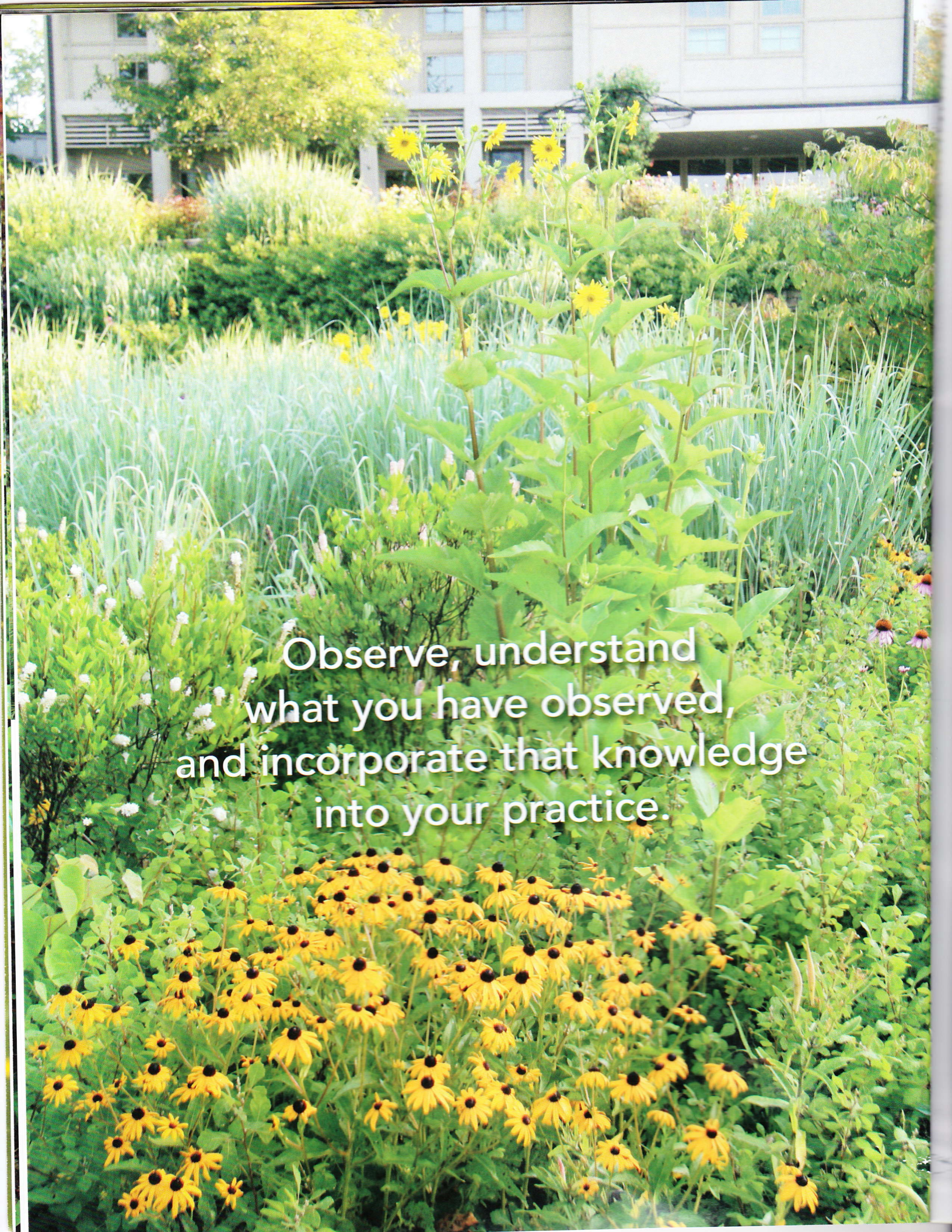
The timing was critical: we mowed repeatedly in the spring when shrubs such as gray dogwood normally make most of their annual growth but when the little bluestem, a warm season grass, is still dormant. We stopped mowing with the onset of summer, when the shrubs stopped growing and the little bluestem took off. By repeatedly removing the new growth from the dogwoods in this fashion, we starved them over a period of a few years. Meanwhile, the little bluestem, which was never being cut during its growth period, was free to photosynthesize and produce food to its maximum potential. Other late emerging flower species like asters and goldenrods were also favored by this process, and after four years we had a dense little bluestem meadow, and the mow regime was reduced to once yearly in late winter.

The only variation in this expanse of grassland were periodic gray dogwood drifts that had been excluded from the mow regime. These preserved drifts were carefully located in the meadow interior to gracefully guide you through the field, and on the surrounding woodland edges to frame particularly good views into the forest.

But given that these drifts were not being cut nor deprived of their ability to produce food, how would we keep these aggressively spreading shrubs from expanding and recolonizing the meadow? A series of walking paths that meander through the meadow were also designed to encircle each dogwood patch. This continually cut off the new shoots as they emerged from the shrubs' expanding root system, and held the patch in place. From an ecological succession standpoint, our initial spring mow program had turned back the hands of time, and our dual purpose path system was allowing time to stand still.

All this was accomplished without any tilling, spraying, or planting. From a physical standpoint, our elderly friend and his Gravely mower had single-handedly transformed an impenetrable thicket into an intricate native meadow. From a mental standpoint, this was made possible through a plan of action that combined the thoughtful manipulation of ecological succession with garden aesthetics. And the aesthetic attributes of the composition were not only derived from the beauty of the individual plants, but from the graceful interplay of our natural landscape's basic building blocks: Meadow, shrub land, and forest.

Had this field been cultivated and plowed in the past, it would have lacked the native grass remnants and I couldn't have returned it to meadow so easily. Had I followed standard horticultural procedure and pulled or dug out the shrubs and then tilled the soil for planting, I would also have destroyed this field's inherent potential—instead of promoting the re-emergence of meadow, I would have had to start a meadow from scratch. Ironically, I might well have planted little bluestem, because it is such a superior meadow grass for the northeast, after first having exterminated the little bluestem that was already there. In addition, the resulting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soil disturbance from tilling would have opened the site to opportunistic weeds, and made the meadow much more difficult to manage going forward.

My choice of the easier path in restoring this meadow was not a matter of good luck. It was the result of a careful reading of the site and of taking advantage of what this taught me about its own ecology. This technique would not have worked had the field, back when it was farmed, been cultivated for raising crops; it is as important to know when you cannot use a particular technique as when you can, and it is the site that tells you this either way. And had I not paid attention, I might have committed a truly oafish act. The loggers who had cleared the land hadn't disturbed the soil, nor had the farmer who grazed livestock on it later. But I, in a misguided desire to return the field to "natural" vegetation, might have been the first person in the human history to till the soil and change it irreversibly. The time I invested in inspecting and analyzing were truly hours well spent.

As a postscript to this case study, I should add that I recently revisited this site after many years' absence. The meadow with its carefully dispersed clumps of gray dogwood continues to flourish. The owners of the property have further elaborated their more formal, ornamental gardens. It is subjective, a matter of opinion, which is more attractive, the formal plantings or the more natural meadow. What is not subjective, however, is the fact that the meadow requires far less input of labor and materials per square foot than the formal plantings.

Ecological Landscaping

The project described above is, of course, only one instance of putting the principles of ecological landscaping into action. Quite often I find myself dealing with a site so disturbed that no remnants of the native vegetation remain, and my focus must be on starting afresh, rather than simple restoration. Even in those cases, however, identifying the potential natural dynamics of the site and letting the site express itself remain the key to success. Observe, understand what you have observed, and incorporate that knowledge into your practice.

There are considerable advantages to a garden of this kind. Creating and maintaining such a landscape is much less resource intensive than what is demanded by one that follows traditional practices. Obviously, the ecologically-driven landscape also offers far more benefits to the surrounding ecosystem and to wildlife both large and small.

There is another type of benefit, though, and that is the satisfaction and pleasure it can bring to the owner. No matter how long you live with it, an ecologically designed and managed landscape, because it is dynamic, never becomes routine. My own garden, a 1/3-acre suburban lot outside Philadelphia, has never stopped evolving over the twenty-eight years in which I've tended it. I know this patch well after tending it for so long, and yet it continues to surprise me year after year—there is always something new as, interacting with my direction, it continues to seek its own course.

Started from just a few individual plants, this matrix of native woodland wild flowers colonized the front terrace of a small residential garden. An opportunity was created, and plants were allowed to move around according to their own tendencies, allowing nature to become a design partner. Photo by Larry Weaner.

This is one of the great advantages of ecological garden design. Designers often speak of the need to instill a sense of mystery into the garden—just as romance dies when a relationship becomes too predictable, so too a predictable garden rapidly becomes boring. The changes I find in my garden from day to day may be subtle, but they are rarely predictable. I never know, for example, just where a columbine will pop up next.

LARRY WEANER has been creating native landscapes since 1977. His firm, Larry Weaner Landscape Associates, has received numerous awards and been featured in a variety of publications. Larry lectures throughout the U.S. and founded the New Directions in the American Landscape conference. He coauthored *Garden Revolution: How Our Landscapes Can Be a Source of Environmental Change* (Timber Press, 2016) and recently received the New England Wildflower Society Regional Impact Award and the Lady Bird Johnson Environmental Award from the Westchester Community College Native Plant Center.

THOMAS CHRISTOPHER is a graduate of the New York Botanical Garden School of Professional Horticulture and has been working in and writing about gardens for 40 years. He has published extensively in magazines such as *House & Garden*, *Horticulture*, *Better Homes & Gardens*, and the *Sunday New York Times Magazine* and served as a contributing editor at *Martha Stewart Living*. He is the author of more than a dozen books and co-author of *Garden Revolution* with Larry Weaner, helping to interpret for readers Larry's work and gardening philosophy.

Facing page: Cup plant rosinweed (*Silphium perfoliatum*) seeded itself into the center of this garden from a nearby meadow. Forming a statuesque focal point, it was allowed to remain as an aesthetic and functional link to the nearby meadow ecosystem. Photo by Larry Weaner.