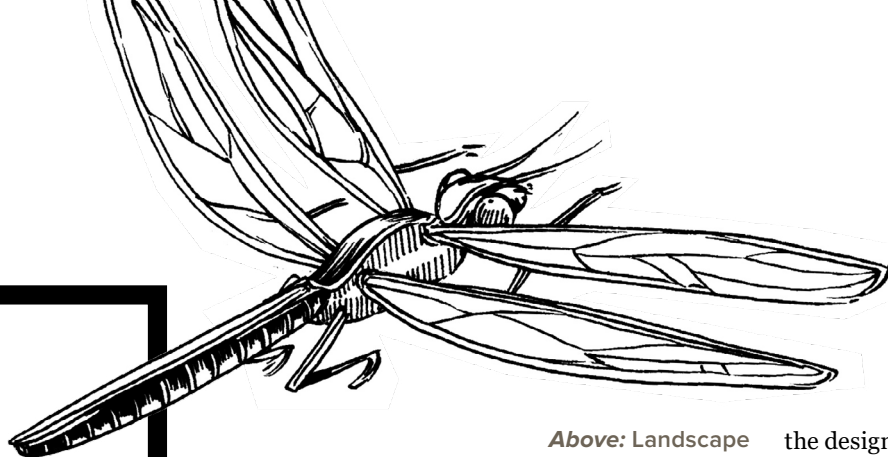


11 THE EDUCATOR

darrel morrison

Madison, WI



Above: Landscape architect Darrel Morrison recommends getting to know the native flora and ecology. This includes learning about native insect species that depend on local plants to survive. Insects like this dragonfly also bring liveliness and beauty to the garden.

Designer and educator Darrel Morrison has been using native plants to design gardens and restore prairies since 1970. He's taught planting design classes at Columbia University, the University of Georgia, and the University of Wisconsin-Madison. A frequent host of nature tours, Morrison observes plants in their natural ecosystem to translate the plantings into designed landscapes and shows others how to do the same.

Left: When leading field courses, Morrison says, he's always on the lookout for vegetation patterns. Native birch trees, with their patterned bark, are a great reminder to always be on the lookout for ways to add geometric shapes, patterning, and rhythm to your garden.

GD: What is a natural garden?

MORRISON: I have four principles I work from when designing natural gardens: One, the gardens should be ecologically sound—they should not use limited resources unnecessarily. Water and energy inputs should be preserved. There should not be any invasive species that will diminish natural diversity. There should be plantings that attract other forms of life (butterflies, bees, birds).

Two, a garden should be experientially rich. It should be filled with color, texture, and, my favorite, movement. This is why I'm a big fan of native grasses—they are constantly moving in the breeze. The garden should be spatially intriguing, too, with mystery and places to explore.

Three, gardens should tell us where we are. They should reflect the native plants, stone, and woods of the region.

Four, gardens should change over time. This means they change over the seasons but also, and perhaps more importantly, over the long term. The migration of certain species through the garden and the maturing of plants should be part of

the design. I like to say that paintings are two dimensional, sculpture is three dimensional and landscapes are four dimensional, with time being the fourth dimension.

What got you excited about natives and using them in your work?

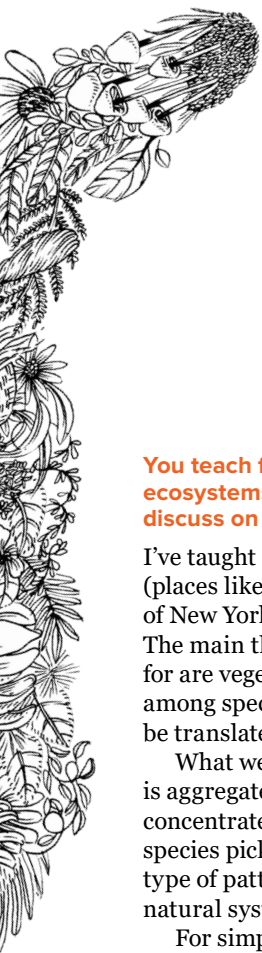
In the '60s I was fresh out of college working for a public agency as well as a private practice. We were just using the same species over and over again—*Vinca minor*, crepe myrtles, English ivy. I thought there had to be a better way. I ran across the book *American Plants for American Gardens* by Edith A. Roberts and Elsa Rehmann. The book details plant communities of the Northeast and how to adapt them to residential gardens. It struck me that I needed to know more about this.

I soon decided to attend the University of Wisconsin-Madison to get my master's degree in landscape architecture. The first class I had was Plant Ecology. It set my life in a new direction. At the time, the scientists at the university were working on the first prairie restorations in the world. It was amazing to see meadows created by scientists. I started learning all I could about natives and dove deep into learning about plant communities.

How can gardeners transform their backyards into more naturalistic spaces?

It's possible to move incrementally into the development of a more ecologically sound and natural garden. It's a process, and gardeners can take it one step at a time or jump into the level they feel comfortable with. I like to begin with substitution. You can start by replacing traditionally used exotics with natives: pawpaw instead of crepe myrtle, *Viburnum acerifolium* instead of *Euonymus alatus*, *Liatris spicata* instead of *Lythrum salicaria*, *Sorghastrum nutans* instead of *Miscanthus sinensis*, *Pachysandra procumbens* instead of *Pachysandra terminalis*, *Hamamelis virginiana* instead of *Weigela* spp.





You teach field courses on native ecosystems. What do you look for and discuss on the hikes?

I've taught a lot of field courses in forests (places like the Black Rock Forest north of New York City), prairies, and wetlands. The main things we're on the lookout for are vegetation patterns, interactions among species, and how what we find can be translated into a garden's design.

What we see is that often one species is aggregated in some way in drifts. It's concentrated, disperses, and then another species picks up. Understanding this type of patterning is essential to adapting natural systems into a landscape design.

For simplicity on the tours we look at the factors that affect the plants above ground. We can see how much sky is open above the plants to understand how much sun an area gets. It's also possible to look for indicator species. For example, if we see a prickly pear cactus, we know there are soils that drain well. This information can be used to know where and how to place plants in a residential design.

Who has influenced your work?

Stephen and Rachel Kaplan, environmental psychologists who taught at the University of Michigan. Their work outlines four characteristics of natural ecosystems that make them interesting to people: mystery, complexity (the number of species and how they look aesthetically), coherence (how a space is organized and results from pattern), and legibility (the way to move through the landscape is visible). This can all be translated into the design of a garden. For example, using a riverlike form to create a path invites you to follow it, so it's legible. You don't see the end of the path in the distance, so there's mystery. The distribution of plants along the path gives it coherence. And the ground plantings can have a diverse mix of plants, perhaps in a limited selection of colors, to provide complexity.



You've worked all over the country. How do you learn about local ecosystems and develop a cohesive design?

I always start by getting to know the native flora and ecology. You should take a hike, preferably with a local botanist or taxonomist who can show you the way. There are local plant and garden clubs that have these types of tours. Read the local literature. Each area usually has a go-to book about how to use regional

natives in landscapes. In Wisconsin, I used the book *The Vegetation of Wisconsin: An Ordination of Plant Communities* by John T. Curtis, which has wonderful lists of flora by plant community.

When I was teaching a class at the University of Georgia and showing projects I'd designed in Texas, New York, Wisconsin, and other areas, a student asked, "How can you know enough about each area to do these designs?" I replied, "I work with people who know a lot more than I do." To which the student said, "Then why do they hire you?" I said, "I'm the one who knows how the pieces fit together." My point is that you don't have to know everything. You have to know where to look, whom to ask, and how the pieces can fit together.



Start creating an ecological garden by replacing exotics with natives.