

perspective

GARDEN LIKE THE EARTH DEPENDS ON IT

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The natural slope of this design has been retained and the natives and other perennials are used to enhance it.



A homeowner mourns her woodland destroyed by a derecho.

We need to garden as if the earth depends on it because the realities of climate change weigh on all of us. We can address climate change—whose problems are large and complex—by designing one garden at a time. This is gardening for the future.

Recent weather events have the attention of the public. Landscape designers are rethinking plant selection and irrigation in part because homeowners are concerned that their plants do not thrive. Innovative and sound practices can moderate climate change and create livable landscapes.

It is more important than ever to match plants to site conditions. Creating habitats is a method whereby we can prepare landscapes for the effects of



Monarch butterflies
prepare to migrate
from a *Pinus strobus*.



An American toad explores this lawn, which has not been treated with pesticides. Providing a welcoming environment invites beneficial wildlife.



our changing climate. A healthy habitat has a greater chance of surviving climate events such as storms, flooding, and drought because the soils are deeper and held in place by accumulating plant debris and the plants' deep root structures. Growing diverse combinations of native plants create resilient communities as the toughest plants become prevalent and the others have a protected habitat in which to thrive.

Every garden counts. When we introduce native plants into landscapes, we increase the numbers of pollinators that survive and reduce the pressures of invasive species. As the climate warms, the corridors we create with our resilient native habitat gardens help the movement of species northward.

Investment in our landscape becomes more important as our changing climate becomes evident to everyone who makes gardens. Gardening sustainably through the wise use of water, reducing the use of fossil fuels to run our machines, and ➡

conserving our soils are things everyone can do while creating outdoor spaces to be enjoyed.

Landscape designers are concerned about climate change. We hear and read about *reducing* emissions from energy production and manufacturing. Dr. Jonathan Foley, climate and environmental scientist, writes, “We can also look to ways to *remove* greenhouse gases from the atmosphere” using “sinks” (Globalecoguy.org). Land-based ecosystems capture and store excess gasses for long periods of time. According to Robert Henson these ecosystems take up 20 to 40 percent of carbon emissions each year (*The Thinking Person’s Guide to Climate Change*). Examples of land areas in North America unable to absorb carbon dioxide from the air are clear-cut parcels for new developments and large areas of pavement. “Where ecosystems have been degraded, restoration can help them recuperate form and function, including absorbing and storing more carbon over time.” (<https://drawdown.org/sectors/land-sinks>)

Landscape designers plan for wise conservation and use of water. We fill our designs with plants that will thrive and create habitat and will remove carbon dioxide from the air. According to Project Drawdown, the carbon that has been stored in soil organic matter returns to the atmosphere “through decomposition and soil respiration.” Remember your soil science courses? Although our contributions as landscape designers are small, such as our habitat gardens that become part of a larger corridor for wildlife, our new gardens and tree lots become part of a greater effort to address climate change.

The difficulties are the unknowns of how the changing climate will affect your location. We know that summers are hotter and drier in the Midwest, that rain has been scarce in California, and that hurricanes are causing flooding and ➡➡



A walking stick blends into a rust-covered gate in a pasture.

Swallowtail butterflies visit *Echinacea purpurea* in a perennial garden (below).



Asclepias syriaca pods disperse seed in a small prairie.

destruction along the East Coast. Wildfires have caused unmatched damage to homes, towns, landscapes, and natural areas. In addition to the changes in and unpredictability of temperatures and rain, drastic weather events happen more frequently with greater fury. I have often told my clients that landscapes do not last forever. Trees decline and die, some plants thrive, and others do not. The effects of climate change are different and unsettling, but we need to respond with innovation and flexibility. In the process, we not only create beauty in the landscape, but, also a landscape that is sustainable and regenerative and will lessen the future effects of climate change and slow global warming. 🌱

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