

# first things first

When you're **picking plants** for the garden, **smart choices** help them prosper in **just the right spot**.

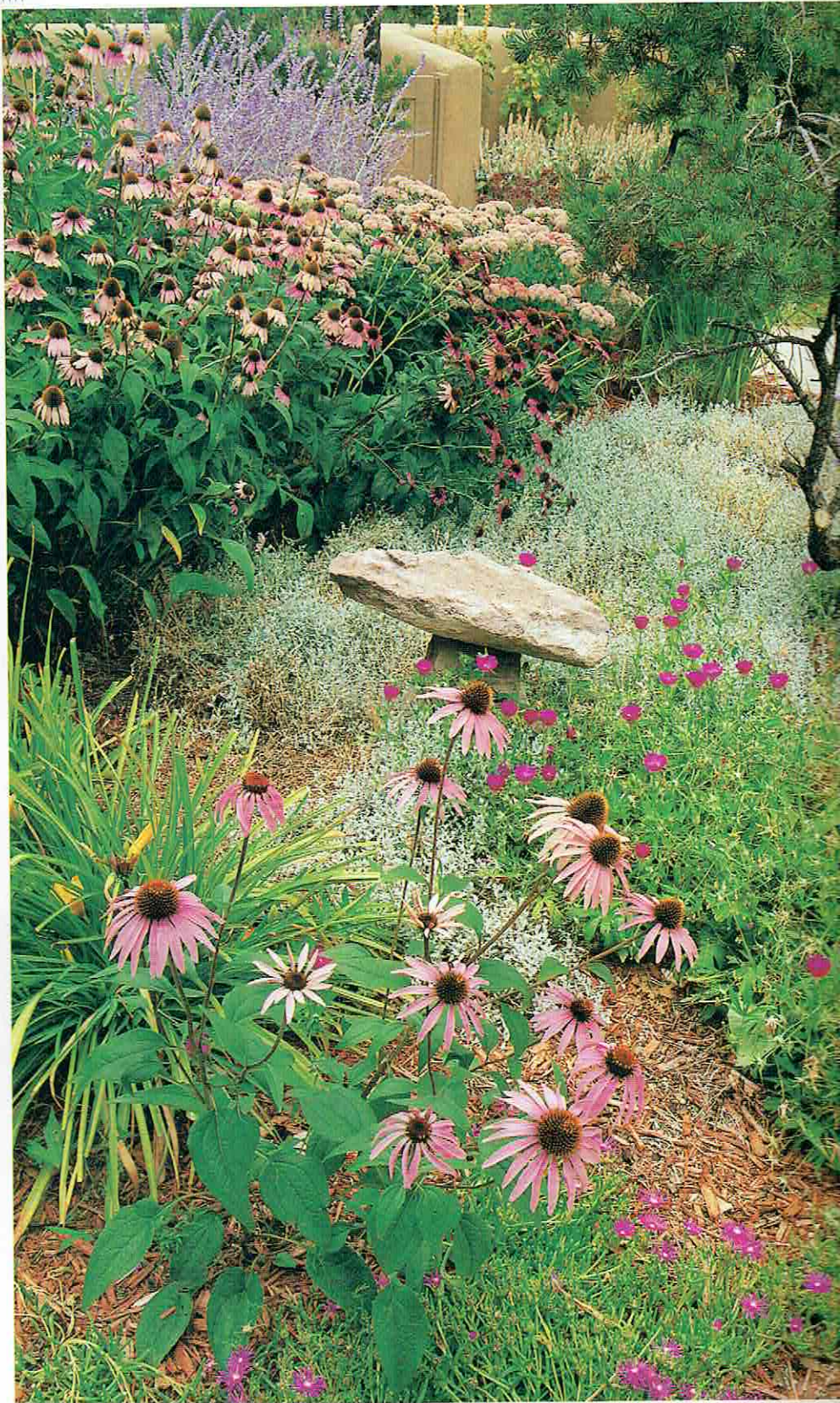
**W**ell-chosen plants are one of the most giving landscape amenities, asking only a bit of space and water in exchange for their many benefits.

Plants provide shade, hold the soil in place, filter dust and noise, and sequester carbon dioxide. They offer the bonuses of color, texture, fragrance, and food. Composing a beautiful and workable plant mix is my favorite part of the design process, akin to layering paint on a canvas. But unlike a painter in oils who afterward chooses a frame to complement his or her art, a landscape designer builds the frame first in order to know which plants will best complete the picture.

As living things, plants have preferences—sometimes very strong ones—for where they will grow. Counterintuitive as it may seem, plant selection should be the last thing to work out when designing a garden. There are reasons why dessert follows the meal. Throughout the process, spaces should be considered for their planting potential, but until you shape the space, you can't know what will grow best in its confines. You have many thousands of plants to choose from, so using their preferences to narrow the field in which they will grow makes good sense.

## climate

Climate defines the broadest parameters of place and serves as the first means of winnowing the planting possibilities. Life in the high desert requires plants to be both heat and cold tolerant, and, as importantly, to tolerate rapid shifts in temperature. Plants that will prosper here need to be drought tolerant and paired with companions of similar adaptation. Tolerance of dry air is one of the most critical and least considered adaptations to climates with



A Midwestern prairie native, purple coneflower adapts well to cooler Santa Fe gardens. It looks best when planted in afternoon shade because of the low humidity and heat in Albuquerque and farther south. Landscape design by Santa Fe Permaculture.

## DESERT GARDENING

Visit [SuCasaMagazine.com](http://SuCasaMagazine.com) for some of the best plant options for your Southwestern garden design, from shade trees to accent grasses and choices for color, sun exposure, soil types, and more.





Above: The planting spaces at the edges of this flagstone patio create niches for plants. Threadgrass basks in the heat reflected by the stone but is kept from wildly self-sowing by vigorous hollyhocks and yarrow. Landscape design by Santa Fe Permaculture.

Below: Pathways visually organize masses of perennials and grasses and also provide access to tend the plants and view them from different perspectives. Design by Susan Blake of Santa Fe.



limited moisture. Conscientious gardeners can keep the soil moist if they have access to water and means to apply it, but if a plant loses moisture from its leaves faster than it can absorb it from moist soil, the leaves will burn. Many broad-leaved evergreens are unable to thrive in the high desert because the winter wind freeze-dries their foliage until both plant and gardener would be happier if the silently suffering would just defoliate and try again next year. While leaf burn isn't fatal unless it is so extreme that the plant can't produce enough chlorophyll to sustain itself, it is ugly and certainly doesn't allow plants to serve their intended purpose in the garden.

The larger a plant grows, the more important maintaining a moisture balance becomes because trees and large shrubs may eventually outgrow the walls and surrounding plants that offered them some protection early on. Individual plants may not be able to move to more hospitable locales like other living beings can, but arid-adapted species have evolved strategies to deal with the climate where they are rooted. Xeric plants develop several times greater root mass than leaf mass, allowing them to absorb as much moisture as possible. Plants adapted to low humidity have thick, waxy, succulent, leathery, or hairy leaves that are miserly about releasing moisture into the air.



## space

If specific plant selection comes last, then the first step in designing a garden considers the space: the amount of space available, the purposes you intend the space to serve, and the space's qualities including light intensity, exposure to wind, heat, and cold, and where you want to temper those conditions. Large spaces may be separated into smaller ones that serve different purposes; the divisions may be built—walls, fences, trellises—or large enough spaces left open for plants to be used as green walls. As you plot living and play spaces within the larger landscape, the transitions between spaces become opportunities to change the mood as you move from social spaces to more contemplative ones, open and exposed areas to shaded and enclosed ones.

## topography

Start planning from the ground up because topography influences how spaces can be used effectively. Gently contoured surfaces are visually interesting and create varied growing conditions for plants. The high ground will be drier while the soil will stay moist longer in the low spots that capture storm drainage from roofs and paving. Subtle contours, a gentle rise and fall to the land, are soothing. Naturally steep spaces may be appreciated for their edgy character or may be terraced to reduce potential instability and create stages on which a greater number of plants will perform well. Grass areas, especially lawns as play spaces, need to be fairly flat so you can water them efficiently and have a safe space for active use. Determining how much area should be paved to accommodate regular use as living space and pathways for people, pets, wheelbarrows, bicycles, and other garden traffic is a critical part of assessing and shaping the land. Patio surfaces need to be nearly level and may need shading, as paving can heat up and become unusable in summer. But hard surfaces also serve as potential sources for rainwater harvesting to supplement the surrounding plants.

## planting spaces

Once you sketch all of the features that create your garden's framework, the size, shape, and aspect of the planting spaces are set. These criteria include which places will likely be more sheltered by walls, which cache water from runoff and are likely more temperate—ideal places for vegetable gardens and fruit trees. The framework also determines which spots will be open to wind or heat reflected from the south and west surfaces of walls and will likely be the driest zones on site—ideal for cacti and

succulents, desert shrubs, and wildflowers. The design also determines where you will need shading or screening for comfort, where you will spend the most time and therefore may want more dense plantings, and where you want the heaviest or least foot traffic. You know the colors of the built part of the landscape, from stucco or paint to window frames to benches and boulders, pavers, and mulches. Now is the time to think about specific plants that will fill the spaces and provide shade, color, and scent to create the desired experience.

## soil

When gardeners who have lived in more temperate climates try to sink a shovel into Southwestern caliche, they recoil with disgust and assume that the soil is unproductive and needs a major overhaul. Adapting to aridity includes growing well in low-humus, mineral-rich soils. Depending on the site's location, this may be barely decomposed granite, coarse pluvial sand, or finely aged clay loam. Because of the high calcium content, all these soils are alkaline and can be cementlike when dry but become more permeable when they are moistened. Certain plants may prefer one soil type over another; others will grow well in a wide range of soils. On a landscape-wide scale, going to great lengths to amend the soil is pointless because most xeric plants neither need nor grow well in soil rich in organic matter. If you fill your garden with plants that require humus-rich soil, those plants still face great challenges. No matter how good the soil is, the dry air may lead to poor performance in the garden. Why not take advantage of the huge array of gorgeous plants that actually want to live here?

If the garden is based on hearty natives of the arid Southwest and similar climates, the soil will still need some work: dig planting holes several times the diameter of each transplant's root ball. Nothing needs to be added to the backfill except sufficient water to stimulate immediate and extensive rooting. On a microclimate scale, you may find or create niches within the garden that will accommodate a few perpetually puckering plants that you simply can't live without. Amend that soil with generous amounts of compost so those plants have the best chance possible as strangers in a strange land. ☞

*A widely acknowledged expert and author on regionally appropriate gardening, Judith Phillips has designed more than 900 residential gardens, collaborates on design teams for public landscape projects, and teaches a native and xeric plant class at the University of New Mexico.*

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