

Design your Garden with Permaculture Principles

It seems there are two big reasons people are reluctant to do more with their yards: money and time. But you can save a lot of both if you take a little time to consider how your yard fits into the environment around it—and you can let Mother Nature do some of your gardening for you.

The fancy word for thinking about and organizing intelligent ecological design is “permaculture,” coined in the late 1970s. It was first intended as an alternative to destructive industrial agriculture, but its principles make absolute sense for the home gardener as well.

The first and most important step (yet also free) is to **observe** the effect of the elements and how they interact on your property. So get out a pencil and paper, and draw a bird’s-eye view of your lot and buildings. You can get a great overhead photo of your property from Google Earth or at the Maricopa County Assessor’s Office website. Trace the outline of your roof and all other surfaces and buildings where water runs onto your property, and use it as your master. You can then use tracing paper to draw the water flows to see where you have a natural water harvesting opportunity.

You can also observe and plot **sun/shade patterns**. Did you know that the sun doesn’t really rise in the east and set in the west? Okay, yes, technically it does, but it differs dramatically from summer to winter, moving far to the north in the summer, and south in the winter. How does that actually affect your yard? Track the sun patterns at the fall and summer solstice on the diagram you made earlier. Knowing where the shade is thrown is important for choosing the placement of garden plots, trees and plants. How do the buildings on and around your property provide shade? What about your trees or your neighbor’s trees? Maybe you don’t have much shade. That may dictate how you design your new space, and most importantly, what you plant.

Here in the desert, we’ve got to make the most of our **water**. Soil built with plenty of compost and other organic materials actually retains water best. You can also design your garden in a way to maximize retention as well: every drop that flows down a storm drain is a drop that could have raised the water table on your own property. The best way is to build a system of berms and swales, either on contour, or as is the case on most urban lots, as a path system with sunken beds. You’ll eventually use less municipal water and create a cooling effect with more moisture around your home. Think about using barrels or cisterns to collect rainwater and help with day-to-day watering. Arizona rainwater harvesting expert Brad Lancaster has a great website filled with resources.

www.rainwaterharvesting.com

So now you’re ready to start digging, but what’s the best type of **bed**? Surprisingly, sunken beds have some advantages in the desert that are worth

considering. They're cooler, hold water better, and give plants a little extra shade. Raised bed allow you more control over the content of your soil, but they may also limit the depth of your garden, and they dry out faster. Most plants have roots that grow down, so if your raised bed is not at least two to three feet high, your plants will grow through your wonderfully amended soil and only to hit our Arizona clay. If you must use a raised bed, be sure to also turn the soil under the bed before you build it. If you're concerned about the content of your soil, or want to know what it might be lacking, you can get a soil test at one of the agencies listed at <http://cals.arizona.edu/pubs/garden/az1111.pdf>.

For more information about applying permaculture principles locally, visit www.phoenixpermaculture.org.

Doreen Pollack is the Garden Goddess and owner of Down 2 Earth Gardens, providing garden consultations and coaching. Join her for free gardening tips at monthly What to Do in Your Garden this Month workshops. To find a workshop near you, visit www.down2earthgardens.com or call 623.217.6038