

Permaculture in Practice

Holy precipitation, Eco-Man!

As we roll out along the high-altitude, arid terrain of the non-riparian areas in this enchanting land, we mostly find dry dirt. When compared to the entirety of our state's nearly sterile surface area, almost any measure of "healthy soil" would represent an insignificant figure. Still, I'm always surprised, after a good rain, how much life pops out of dormancy, how much lies patiently in hiding.

Typically, only a thin coating of windblown dust covers New Mexico's hard, deep layers of concretized calcium carbonate - known in common circles as *caliche*. Yes, the occasional evergreen trunk protrudes from grade out of its subtle nebkha, but this near-monoculture comes from overgrazing. Before Europeans brought ruminants, this land more closely resembled a regenerative savannah. A much more diverse mix of cacti, grasses, flowers, forbs, shrubs, and trees shaded and insulated the earth from our macrowave-happy sun.

Given expected increase in human populations worldwide and our propensity to overuse conventional water supplies, human beings seem to be running out of water at a dangerous pace. Even without accounting for the predictable mass migrations toward higher elevations (due to global warming), it's just simple arithmetic. If we only look toward our increasingly polluted and depleted go-to water sources, future generations have a frightful problem looming.

Fortunately, all we need to do is to change our perspective. We must see that precipitation represents a vast and mostly untapped renewable resource. Using a process I call "gradual greening," it will take 30 years to jump-start this cultural transition, but it will happen. It has to.

Only after recognizing the boon in the sky can we begin the beneficial, property-enhancing, and profitable work of reaping precipitation in all of its forms. Known as "water harvesting," this age-old act of catching, conveying, storing, and distributing rain, snow, sleet, hail, dew, and fog can be categorized in at least four ways:



- **passive water harvesting** collects precipitation in the soil without moving parts,
- **active water harvesting** stores precipitation in a tank or "cistern" and usually distributes the water with an electric pump,
- **wastewater harvesting** filters and recycles precipitation at least once on a piece of real estate,
- **community water harvesting** provides easy ways for people who prefer working with neighborhood groups, watershed associations, bioregional nonprofits, or any government agencies that improve a local water situation.

Clearly, there is something for everybody in the wet and wild world of precipitation collection. Although it may help, you don't have to be a gardener, a backhoe driver, a plumber, or an alternative septicity professional in order to save the world. You can be anything from a nerdy computer whiz to a gregarious political wonk and still play a role in regenerating your watersheds.

Should any of this interest you, please contact Linda Milbourn at the Santa Fe Botanical Garden (linda@santafebotanicalgarden.org or 471-9103) to sign up for an exciting property tour on Saturday, Sept. 20.

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