



“Avoiding Death by Hardscape”

A guide to sustainable, waterwise and xeriscape design.

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Today we will focus on how you can contribute to a healthy environment through the use of sustainable design and landscape principles and practices so you don't experience:

“DEATH BY HARDSCAPE!!”

- According to Ben Grumbles, Assistant Administrator for the EPA's office of Water, “ We predict 36 states will experience water shortages by 2013. Water is this country's greatest liquid asset.”
- Water brings our gardens and landscapes to life, but this once cheap and freely available resource is now becoming problematic with prolonged drought at one end of the spectrum and catastrophic flooding at the other.

XERISCAPING, SUSTAINABLE LANDSCAPING and WATER WISE/EARTHKIND GARDENING ... that means cactus, agave, gravel and rock right?

No, but these are different terms for the same idea:

COMBINE SEVEN COMMON-SENSE GARDENING PRINCIPLES THAT SAVE WATER AND PROTECT THE ENVIRONMENT WHILE CREATING A LUSH AND COLORFUL LANDSCAPE.

- Plan first
- Soil is key
- Plant right for your site
- Practice smart watering
- Better maintenance practices
- Mulch and groundcover
- Minimize turf

Sustainable Design

- What does it mean?
- How can you accomplish it?

A Sustainable Site is defined as one that links natural and built systems to achieve balanced environmental, social and economic outcomes to improve quality of life and the long-term health of communities and the environment.

Sustainable land practices can support the function of healthy systems and harness natural processes to provide environmental benefits.

GUIDING PRINCIPLES

- Do no harm
- Precautionary principle
- Design with Nature and Culture
- Use a Decision-Making Hierarchy of Preservation, Conservation and Regeneration
- Support a Living Process
- Use a Systems Thinking Approach
- Use a Collaborative and Ethical Approach
- Maintain Integrity in Leadership and Research

1. Plan first

- Take the time to put your solution on paper. You can erase what you drew easier than you can redo what has been installed!
- Challenge plans you are bidding by making substitutions and partnering with Landscape Architects and Engineers to understand the importance of issues.

Assess client needs, as well as site specific needs

- I want my yard to have lots of color and variety and look better than my neighbor's.
- The proper design will be unique to a specific site and should be based on a careful review process.
- Plan the areas to be affected and group plants that have like water uses together.
- If the plants in a grouping have different water requirements, the tendency is to accommodate those plants with a higher need. This practice negates any water saving benefits you might have achieved by planting low water plants.

Design matters

- Smart design brings better solutions!
- Planning ahead will save water, add sustainability and give you and your client the aesthetic solution everyone is looking for!

2. Soil is key

- Plants depend on soil to supply four major needs: Anchorage, Water Oxygen and Nutrients.
- Maintain and/or improve soil health so that on-site and surrounding ecosystem services are sustained or enhanced.

- Avoid the use of pollutants, chemicals, or soil amendments that can harm human and ecological health.
- Create a zero waste site.

3. Plant right for the site

- Design and maintain vegetation so that on-site and surrounding ecosystem services are sustained or enhanced.
- Reduce resource consumption and waste.

4. Practice Smart Watering

- Value all water on the site.
- Maintain or regenerate healthy hydrologic processes.
- Promote water quality and healthy aquatic habitats.

MORE TOOLS FOR DROUGHT TOLERANT LANDSCAPING

- CREATING WATER ZONES IN A LANDSCAPE
- RAIN HARVESTING
- RAIN GARDENS
- IRRIGATION TOOLS

5. Better Maintenance Practices

- Appropriate maintenance practices done at the right time of year will save water.
- Avoid materials, products and practices that are harmful to the environment.
- Reduce energy use, both embodied and operational.
- No garden is completely maintenance-free. Every landscape requires regular maintenance to look its best.

6. Mulch and Groundcover

- Mulch is an essential component for every landscape.
- Mulching minimizes evaporation. It cools plant root zones, which reduces the amount of water plants lose through evapotranspiration.
- It reduces weed growth, and it helps control erosion.
- Mulch also adds a finished look to the garden.

7. Minimize turf

- Create practical turf areas of manageable sizes, shapes and appropriate grasses.

- Add more landscape rather than less! Turf is the biggest “water hog” as well as requiring more weekly maintenance.
- Eliminating turf and installing plantings that work for your climate has been estimated to reduce water usage by 50%.

Things you see everyday and how you can make a difference and avoid Death by Hardscape!

- Odd walk and bed configurations
- Beds which are too narrow for plantings
- Trellises as a solution to narrow beds
- Poor plant selection for heat and sun tolerance between walk and building
- Poor plant selection and combinations
- Irrigation overspray resulting from parking islands that have half circle terminus
 - Possible Solution: Square off round parking ends with addition of Concrete or Gravel
- Rock mulch and concrete increases heat reflection
 - Use ground covers to decrease heat reflection and soften concrete edges

In Summary

- It is our job and our role as professional landscape designers to make sure our landscapes are sustainable and aesthetically pleasing!