

To Gravel... or Not To Gravel



By Elizabeth McGreevy
Droplet Ecological Planning & Design

Gravel Mulch Trend

- Commercial



Gravel Mulch Trend

- Residential



Gravel Mulch Trend

- Residential



Gravel Mulch Trend

- Residential



Gravel Mulch Trend

- Residential



History of Gravel Mulch

- Started in 1960s in Arizona...and was painted green



— Photo of a Sun City Leisure Lawn included in a March 1963 National Geographic article on Arizona.

Who's Doing It?

- House flippers
- Architects & interior designers
- Landscape companies
- Home owners



Why It's Being Done

- To create the “clean look”...or “modern desert”



Why It's Being Done

- To be firewise



Why It's Being Done

- To benefit the environment
- Reduces water consumption
- No more mowing pollution

Joe Mihalic

July 4, 2012 at 2:25 pm

Point taken, but I forgot to mention that another important benefit of frugalscaping is the significant reduction in the size of my environmental footprint. That alone makes this worth it.

[Reply](#)



Why It's Being Done

To increase hammock time



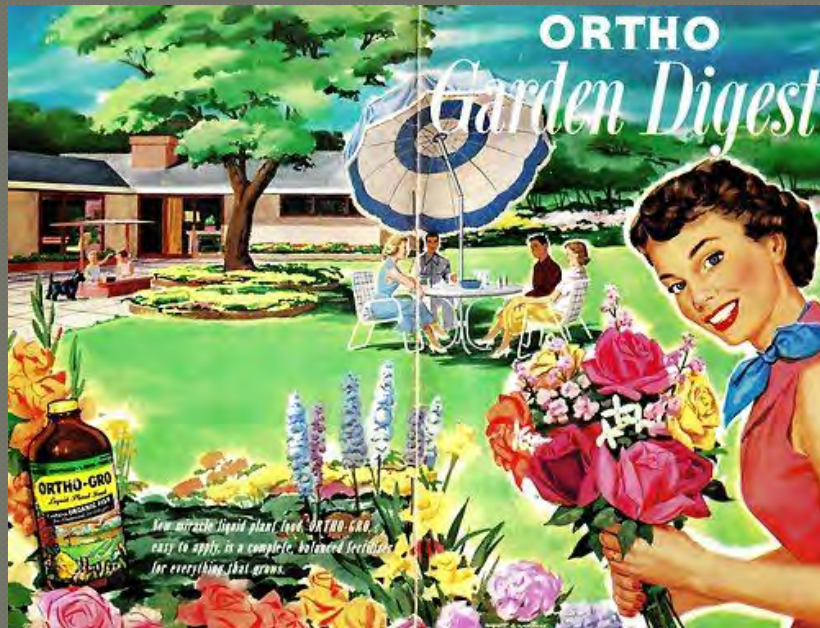
The Way We Maintain

- We water too much and too often



The Way We Maintain

- We fertilize too much



The Way We Maintain

- ◉ We kill everything, including beneficial insects

MURDER Flying Pests
 Use "Push-Button" BLACK FLAG Bomb
Just press the Button...
BUGS DROP DEAD!



**NO spray gun to buy...
 NO dripping...
 NO staining of walls,
 floors, curtains, draperies.**

IT'S MERRY... The simplest, easiest, most effective way to get rid of flying pests is to use the new "Push-Button" Black Flag Aerosol Insect Killer. Just a touch of your finger on the handy push-button releases a potent, quick-acting mist that kills mosquitoes, house flies, and other annoying insects.

NO MESS, NO FISH! No messy spray gun to fill. The new, convenient Black Flag Aerosol Insect Killer is ready to use instantly. You get all the amazing killing power of the famous Black Flag brand, plus the modern convenience of the push-button bomb. Get Black Flag Aerosol Insect Killer today!

NEW! ROSE AND BLOOM BOMBS
 Push-Button! Big to 10 APRILS, LAUREL, BEETLES!
 Drips and Leafhoppers!
 4 oz. (113g) 4 oz. (113g) 4 oz. (113g) 4 oz. (113g)
 10 1271

NEW! BLACK FLAG Aerosol Insect Killer
 12 ounce Season's Supply Size
 Also available in 4 oz. (113g)

Sold at leading stores everywhere!

A SPECIAL INSECTICIDE FOR EVERY HOUSEHOLD NEED

Black's Spot-Killer
 Kills all household flying insects.
 Kills all household flying insects.
 Kills all household flying insects.

Black's Push-Button
 Kills all household flying insects.
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The Way We Maintain

- We then rake up our leaves and yard “debris”



The Way We Maintain

- And then go buy bagged hardwood mulch once a year
- And then spread it...sometimes way too deep



The Way We Maintain

It's exhausting.

However...

Converting lawns and planting areas
to gravel and weed barrier
Is not a good solution

The Problems

Maintenance • Gravel • Weed Barrier

Maintenance Problems

- Need to blow or vacuum every 1-3 weeks



Maintenance Problems

- Some weeds grow through the weed barrier no matter how much you blow or vacuum



Maintenance Problems

- Weeds will eventually grow on top of the weed barrier if the silt is not blown or vacuumed



Maintenance Problems

- Flooding rains can wash out gravels...more so if they're on top of weed barrier AND on a slope



Maintenance Problems

- Eventually weed barrier will be exposed



Maintenance Problems

- After a few years, it stops working



Maintenance Problems

However...

compared to conventional lawn maintenance, gravel landscapes still require less money and less labor to keep them looking new.

Environmental Problems

- Increases heat island effect by as much as 30%
- Darker gravels in full sun are the hottest



Environmental Problems

- The mower is just replaced with the blower or vacuum to prevent weeds: one gas user for another
- Or, people are spraying Roundup on a regular basis to control the weeds



Environmental Problems

- Could be destroying rivers to mine certain gravels



Environmental Problems

- Most weed barrier is a petroleum product
- Most weed barrier is now permanent



Environmental Problems

- If silt develops on top of weed barrier, it will eventually form a crust that reduces water infiltration



Environmental Problems

- Weed barrier reduces or kills soil life
- Weed barrier prevents surface burrowing (ex. native bees)



Environmental Problems

- Mycorrhizal fungi extends root network, protects plant roots & secretes glomalin
- Less fungi = less efficient water & nutrient use, less disease protection and more soil erosion



Environmental Problems

- Soil bugs and worms break down organic matter and aerate the soil
- Aerated soil absorbs more water and atmospheric carbon, oxygen and nitrogen than compacted dirt
- Fewer soil bugs and worms = less water infiltration & increased downslope flooding potential



Environmental Problems

- Permanent weed barrier can strangle & suffocate trees



Good Gravel Use



Good Gravel Use



Good Gravel Use

- Overland Flow Infiltration



Better Gravel Solutions

- Stop using chemicals to control weeds and insects
- For every 1 bad insect, there are 1700 good ones
- Use your hands, vinegar or torch for weeds



Better Gravel Solutions

- Reduce area covered with gravel
- Use lighter gravels in sunny areas
- Eliminate permanent weed barrier
- Use non-shiny cardboard for planting areas
- Use caliche base for non-planting areas



Better Solutions

- Reduce your workload: Less water + less fertilizer = less mowing & less thatch
- Eliminate synthetic fertilizers
- Capture and use rainwater...plants love it!



Better Solutions

- Let the lower weeds be...return to the pre-1950s natural lawn



Better Solutions

- Let more areas be “wild”
- Add “clean edges” to define “wild” areas



Better Solutions

- Replace lawn with shredded cedar or hardy groundcovers
- In planting areas, leave the leaves...it's better than wood or gravel mulch



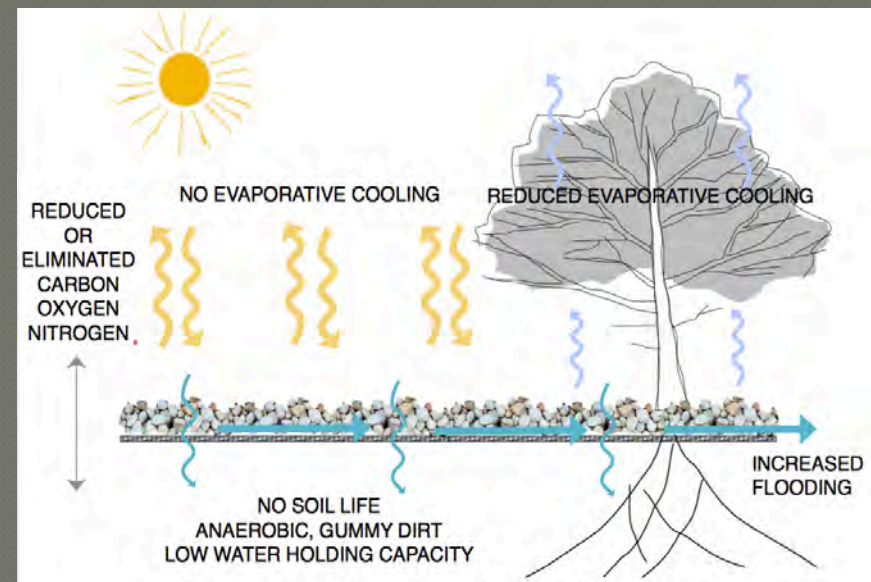
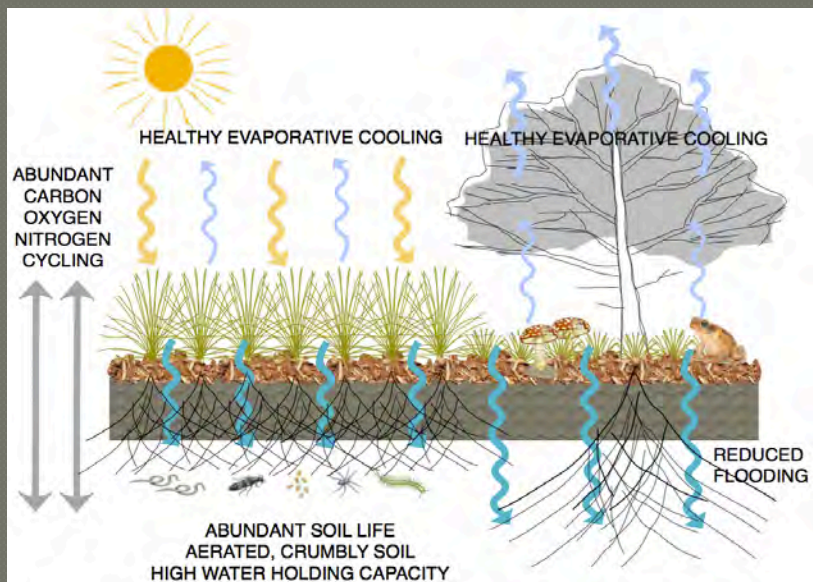
Better Solutions

- Increase diversity of plants to increase fungi network



Better Solutions

- Increase number of plants with various rooting depths to increase evaporative cooling



Better Solutions

- Promote a “clean look” that includes a healthy diversity and number of plants

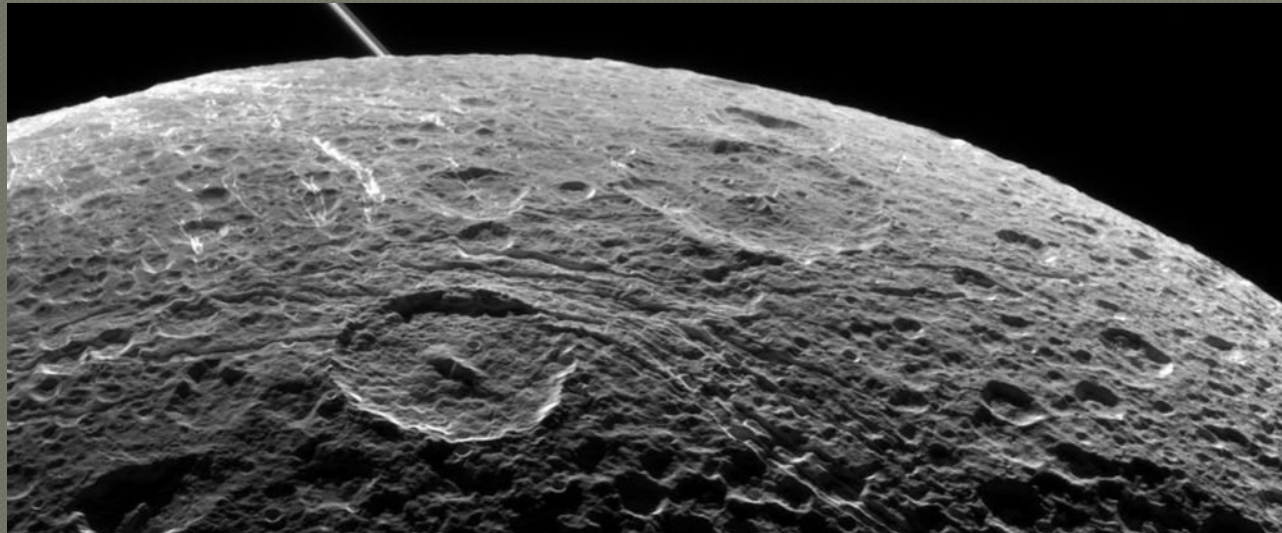


Better Solutions

because plants are good

Better Solutions

and we live on planet EARTH...not the moon



Wrap Up

- Maintain the soil and its life...and the soil will take care of the plants
- Soil without soil life is just dirt

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