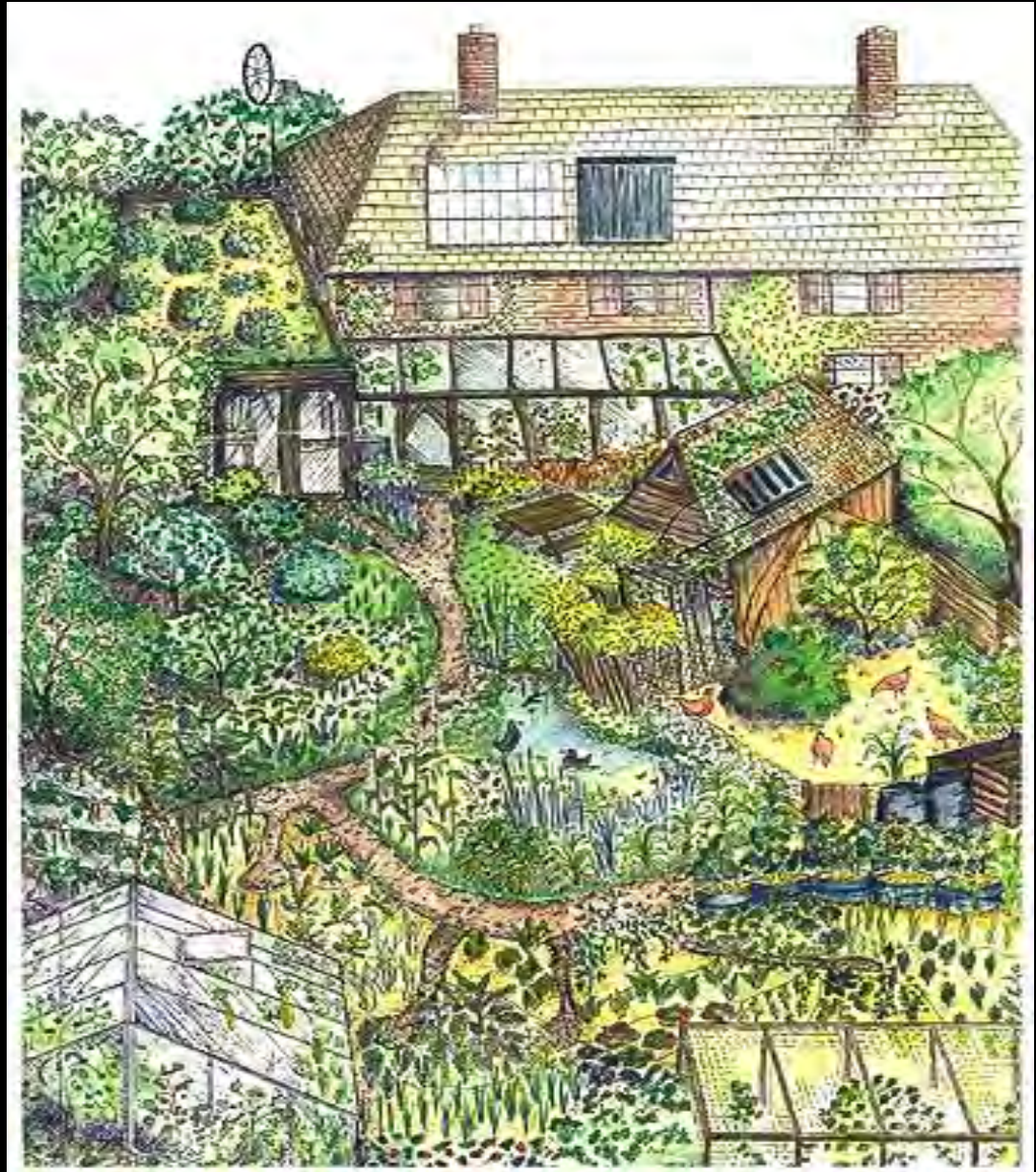


*Permaculture is...*

A vision of  
regenerative  
abundance





## Permaculture is...

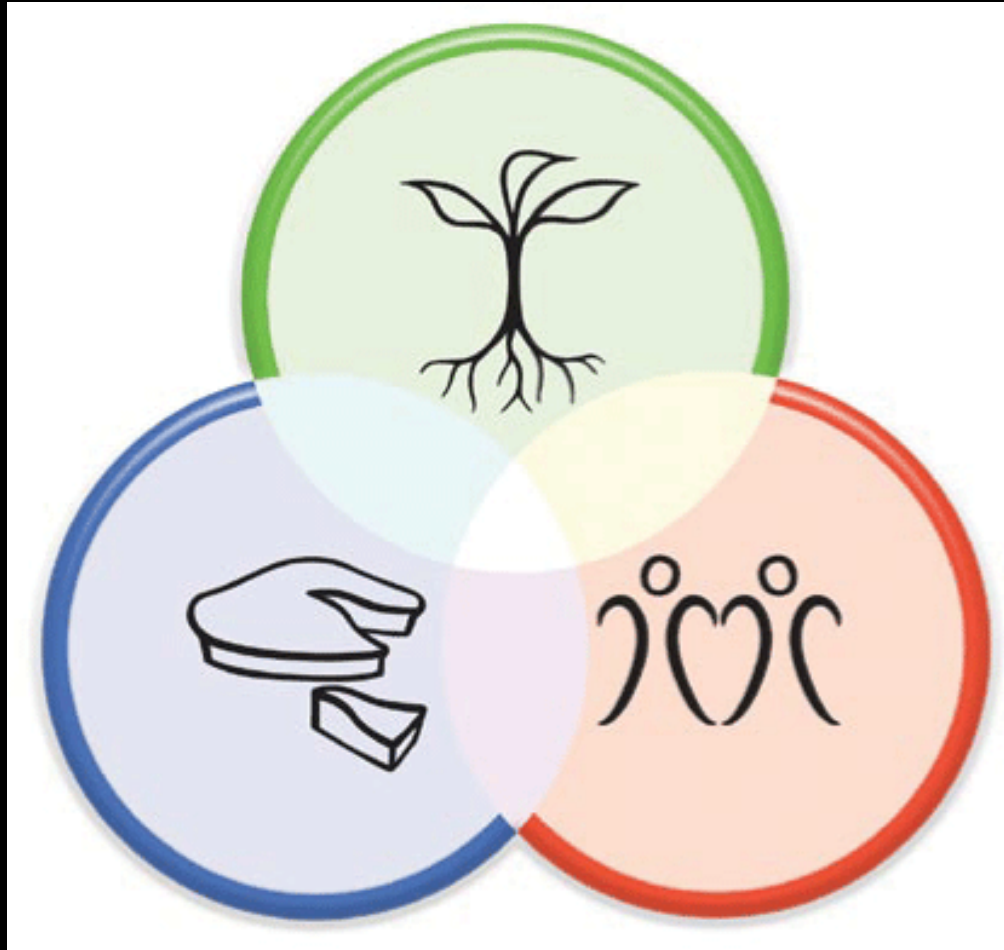
A design system for creating sustainable human environments based on natural principles



## Permaculture is...

A global network with over 1 million practitioners in over 140 countries.

# Permaculture Ethics



# The Permaculture Flower

Starting with ethics and principles focused in the critical domain of land and nature stewardship, permaculture is evolving by progressive application of principles to the integration of all seven domains necessary to sustain humanity through energy descent.

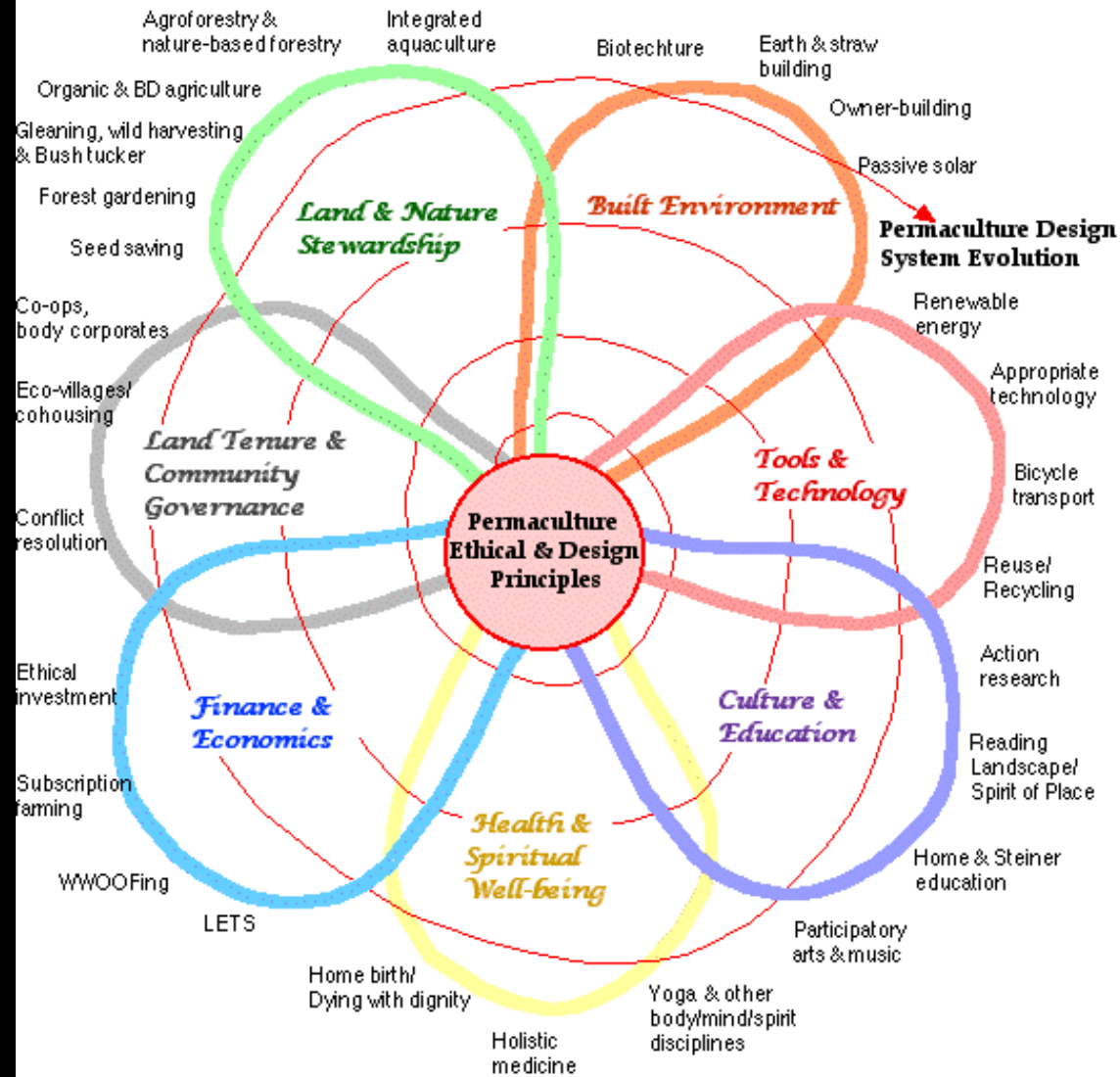


Figure 1 Introduction, *Permaculture: Principles & Pathways Beyond Sustainability* 2002

Begin at your back door.





2007









Observe and Interact



2008

Use and Value Renewable Resources and Services  
Produce No Waste



2008



Catch and Store Energy



Integrate Rather than Segregate

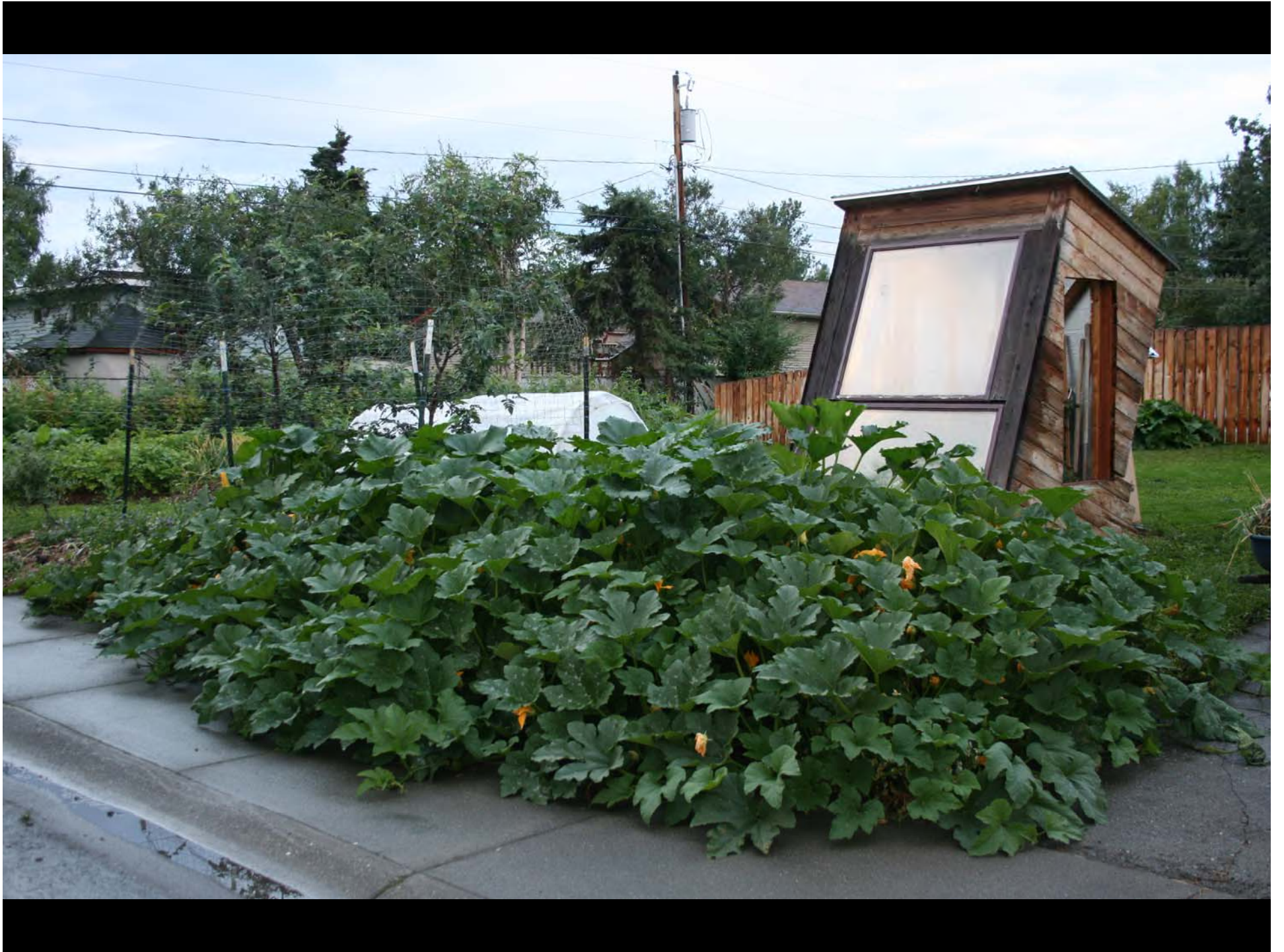


Use and Value Renewable Resources and Services



Obtain a Yield









Use and Value Diversity













# Harvest Tally 2011

Total Weight: 1622 lbs

Approximate value: \$5460

Approximate costs:

\$200 seeds and starts

\$70 chicken feed

## 2014 Stores

48 pounds frozen vegetables

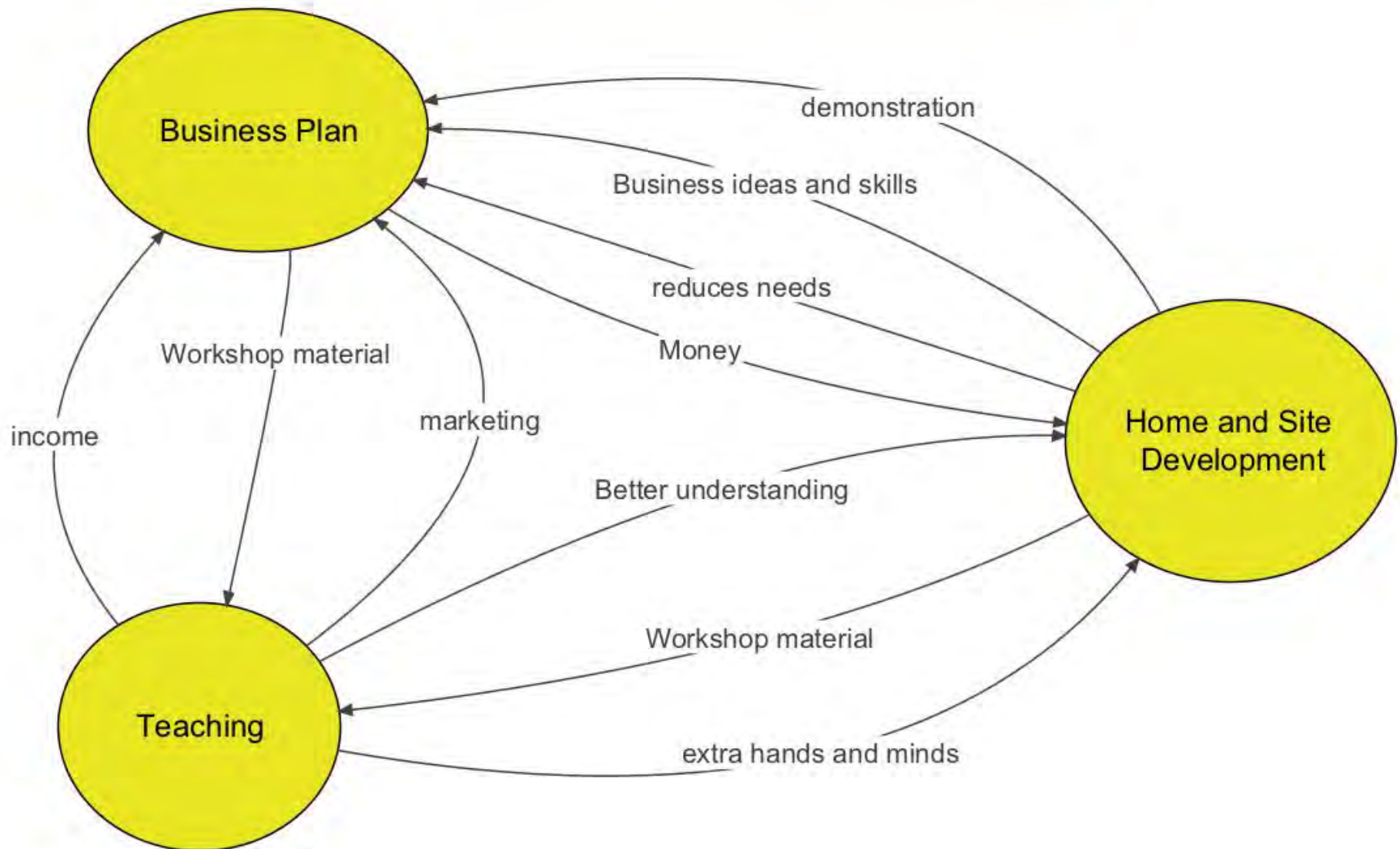
13 gallons berries

28 gallons cold storage

15 cases canned/fermented



Project Diagram  
MSc in Green Business with Gaia University



# Williams Street Farmhouse



Urban Homesteads for Modern Living

Energy Ratings  
Workshops  
Consultations  
Designs

Matt Oster and Saskia Esslinger

[Rededgealaska.com](http://Rededgealaska.com)

907.563.1119

[Williamsstreetfarmhouse.com](http://Williamsstreetfarmhouse.com)

Find us on Facebook:

Williams Street Farmhouse

Alaska Food Challenge

# Living by the Permaculture Principles in Alaska's only Bioshelter

A Presentation

By Cindee Karns,  
[AlaskanBioshelter.com](http://AlaskanBioshelter.com)



From <http://www.sector39.co.uk/blog/?p=3006>

# 1: OBSERVE AND INTERACT



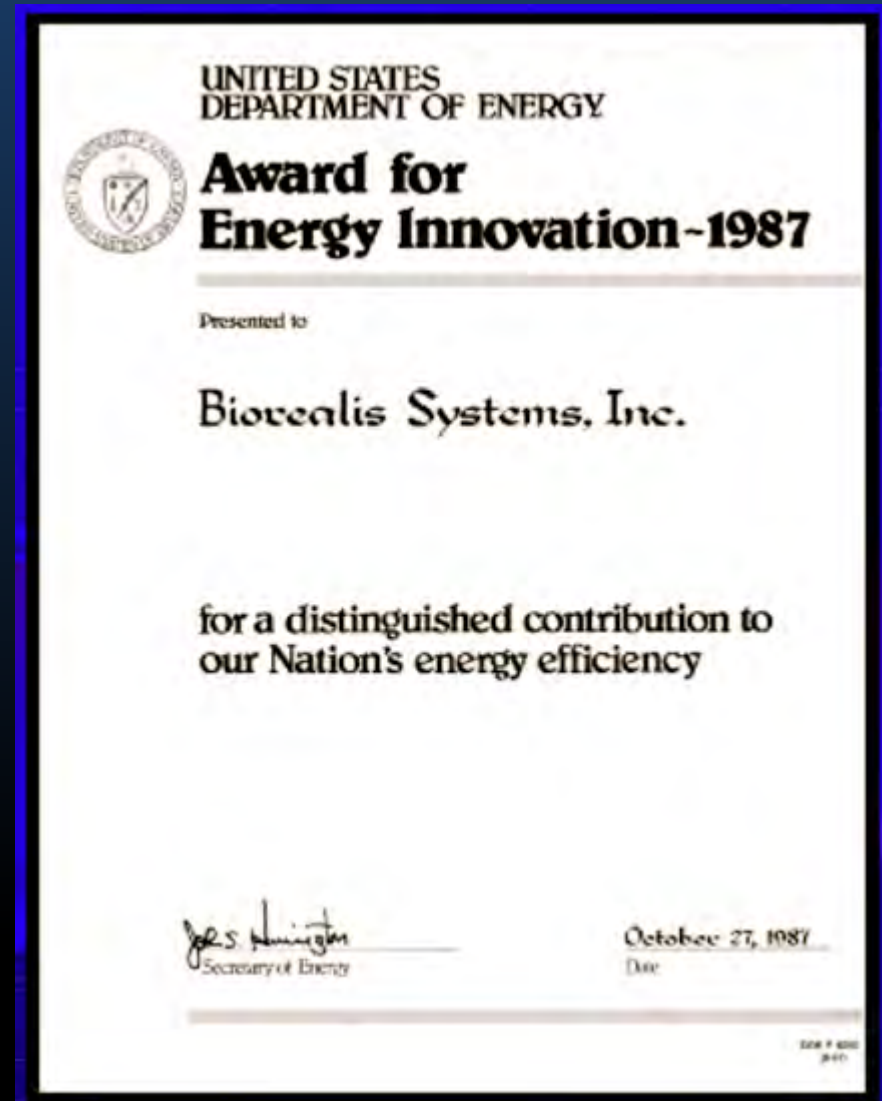


1987

# Bob was ahead of his time!

Construction was completed in 1986.

In 1987, it got a national award from Ronald Reagan's US Dept. of Energy!







2012: 25 years later

We moved in in 2008

# What's a Bioshelter?

An integrated house/greenhouse/aquaculture system designed to emulate a natural living system, in which the subsystems interact with each other to collectively create a self-regulating whole.

# The Water System:

We collect rain from the roof.



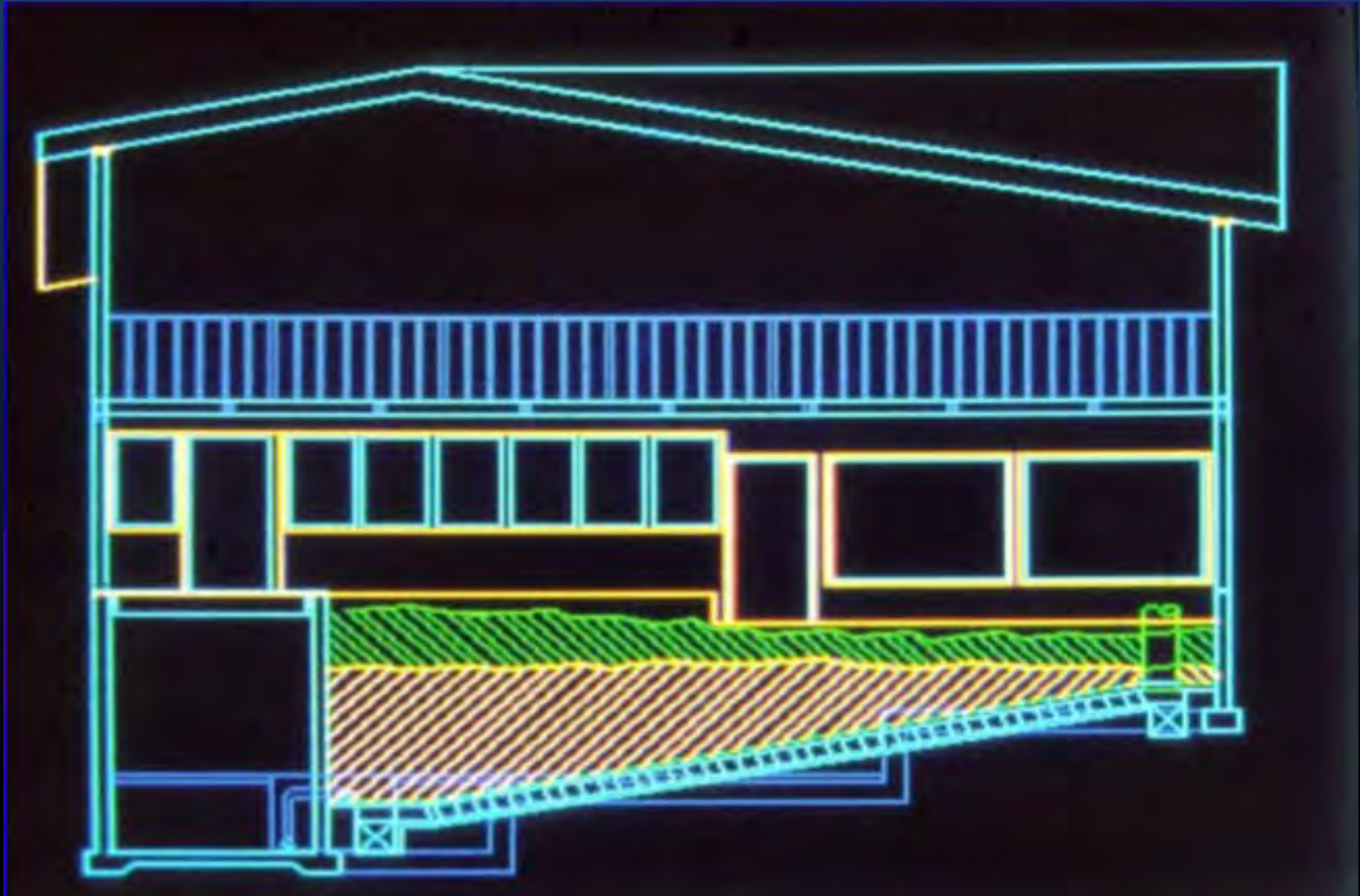
**From the roof drains, the water goes through the pipe to the indoor leach field**



**Water is stored in a 5,000 gal. cistern**

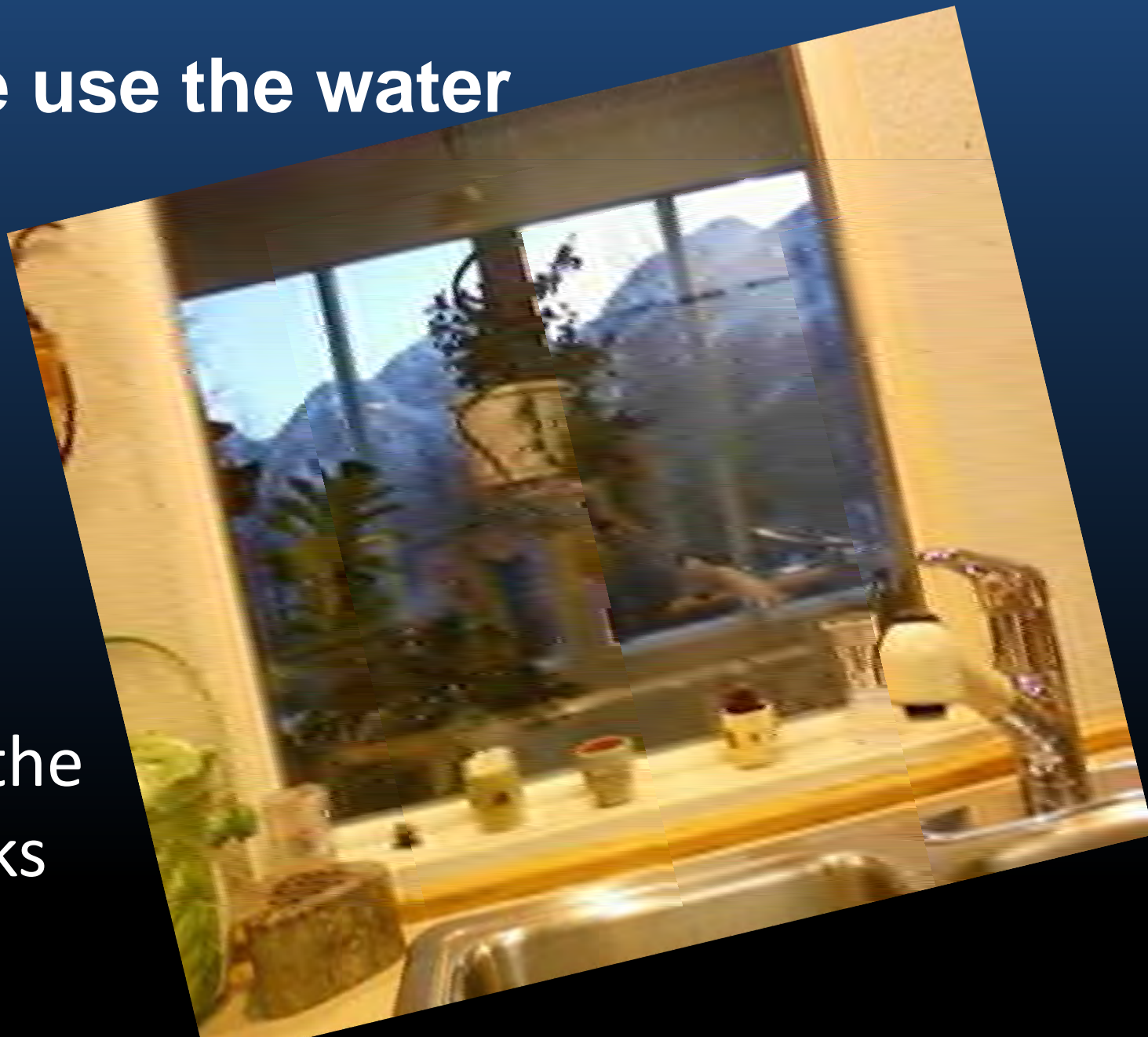


A cut-away.....



We use the water

At the  
sinks



**We have one faucet that filters our drinking water to .5 microns.**





# Our grey water treatment system



## Primary Treatment Unit



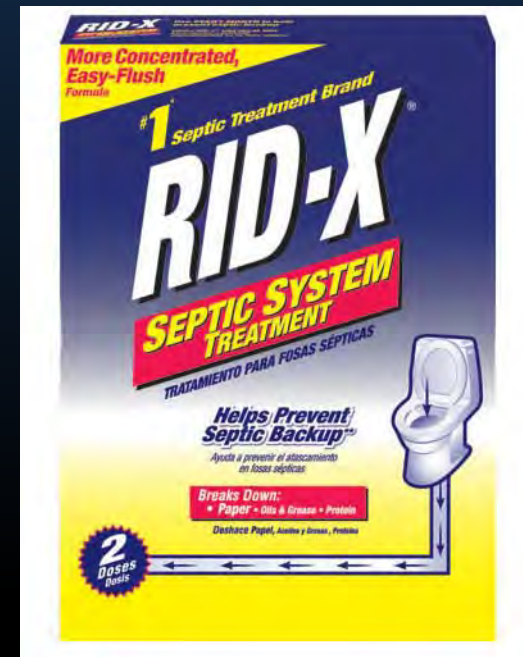
# Waste from one system is the resource for the next!

We need these bacteria to eat whatever goes down the drain.



<http://www.bestseptic treatments.com/tag/rid-x/>

If we go on vacation, the bacteria die without food



**The water comes up from the barrels into a constructed wetland around the pond.**



**The Koi hear the pump going on and gather to catch any yummy bacteria clumps.**

**The waste of one system is the resource for the next.**



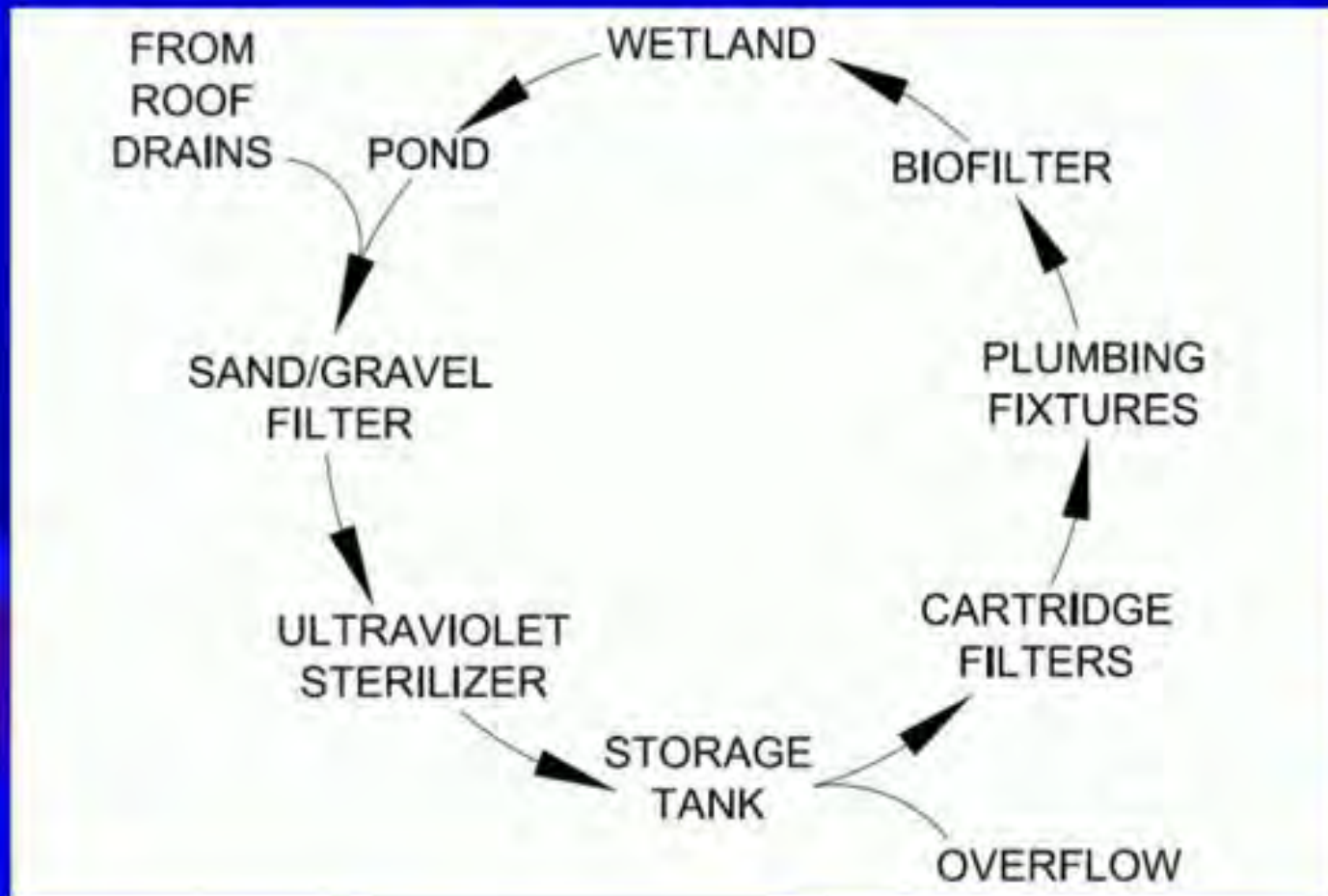
**We use a small  
circulating pump to  
pump water into  
the constructed  
wetlands to take up  
the nitrogen.  
(fish pee)**

**The waste of one  
system is the  
resource for the  
next.**





# Recap of Circulatory System Flow



## 2 CATCH AND STORE ENERGY



Capturing  
heat from  
sun  
and from  
the  
home's  
windows.







3 OBTAIN A  
YIELD

Other yields.....

**We are  
growing  
cherry  
trees  
in the  
solarium!**





# Second Story Solarium Trees

# OBTAIN A YIELD



# APPLY SELF-REGULATION AND ACCEPT FEEDBACK





The fish  
died---

the system  
told us  
something  
was wrong.

# 5 USE AND VALUE RENEWABLE RESOURCES AND SERVICES

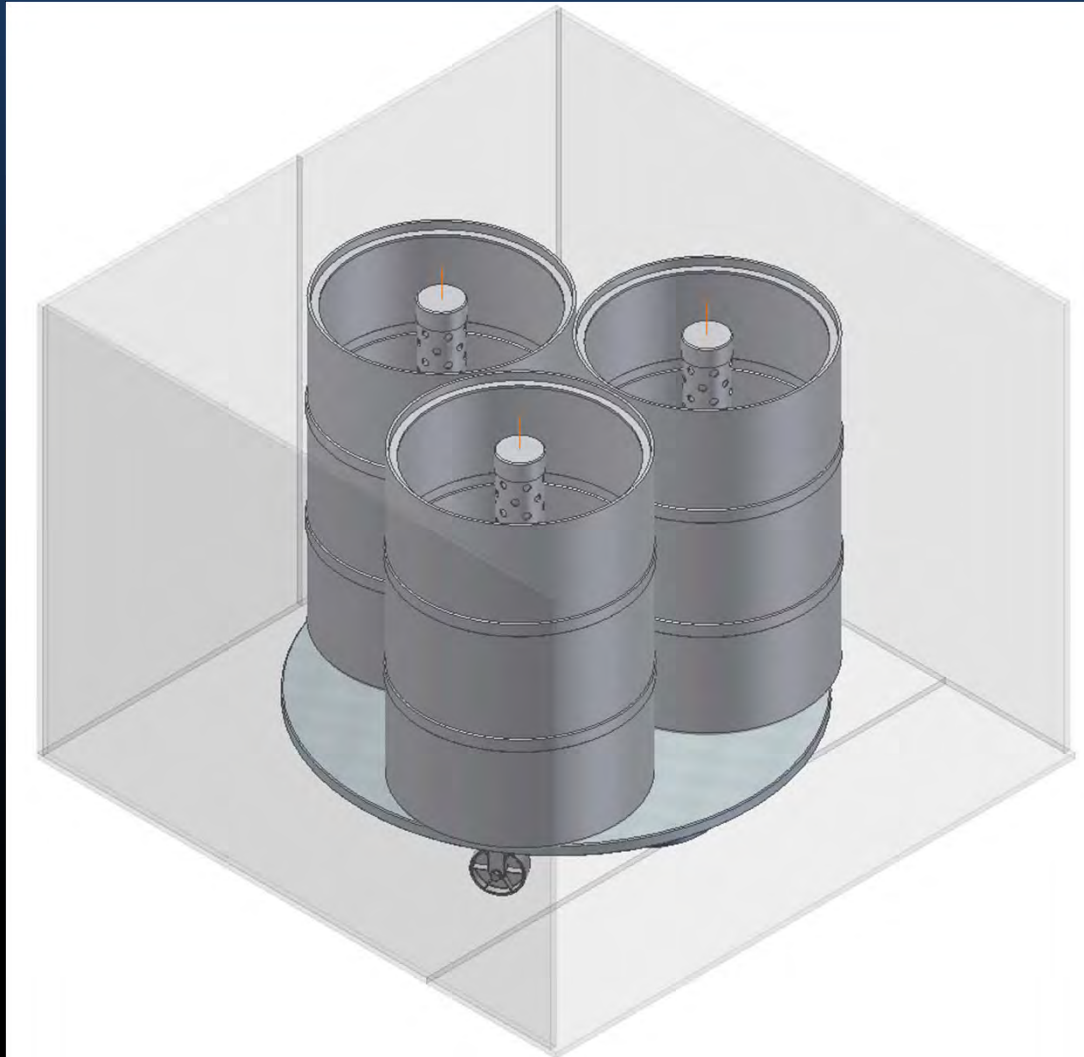


# 6 PRODUCE NO WASTE





# Three barrels in the basement



We fill one every  
six months

Kitchen scraps,  
Junk mail,  
Newspapers,  
Egg cartons,  
Fish carcasses,

# What the drum looks like



Add worms to the bottom



2011 4 12



The castings  
go on the  
garden.

# 7 DESIGN

## FROM PATTERN TO DETAIL



# Built from nature (except the roof)



# Quick tutorial on our natural build



# Quick tutorial on our natural build





Pour the  
clay over  
the straw  
and toss



# Stuff the walls



Use “waste” to create light shafts







# Easy Peasy, Right?

Back to tour regularly scheduled program

# 8 INTEGRATE RATHER THAN SEGREGATE



## 9 USE SLOW AND SMALL SOLUTIONS

Our attempts to grow food.....

Or...why I needed a greenhouse.







# 10 USE AND VALUE DIVERSITY



# 11 USE EDGES AND VALUE THE MARGINAL

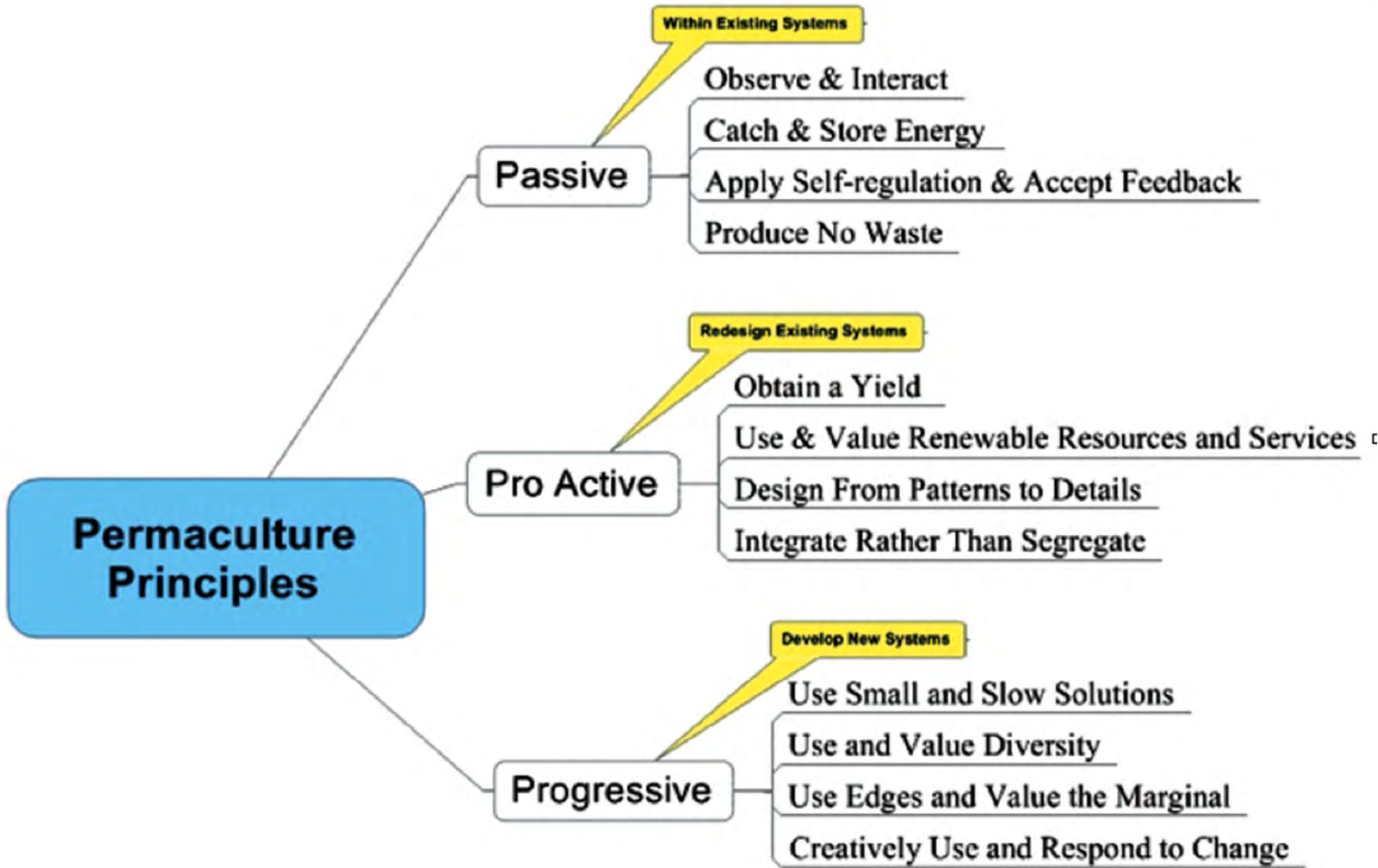


Where are the ideas on the edge?



# 12 Creatively Use and Respond to Change





- Permaculture is about the durability of natural living systems—which includes human culture, but this durability paradoxically depends in large measure on flexibility and change.
- Many stories and traditions have this theme: within the greatest stability lie the seeds of change.

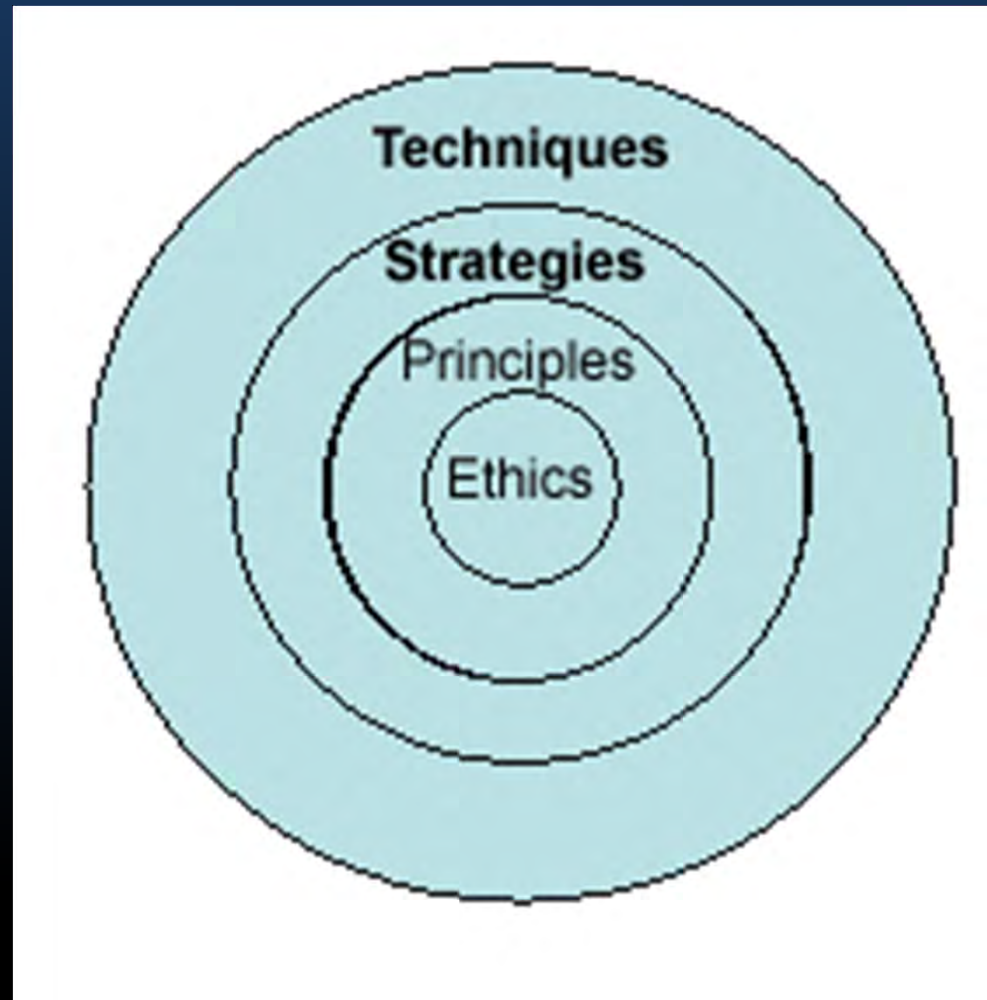
And it all begins with.....

- **OBSERVE AND INTERACT**
- Learn the system before you start making changes. By taking time to engage with that system—whatever it is: church, work, family or your garden) you can design solutions that use nature as your model.



We talked about only the core---  
there's really lots more!

Plug into  
Permaculture!





*That's all Folks!*