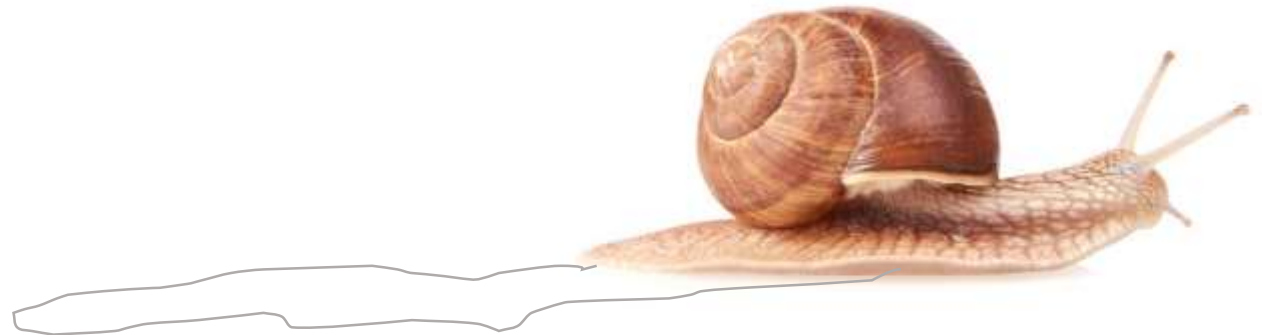


INTRODUCING PERMACULTURE (AKA SUSTAINABLE DESIGN)



WHAT IS PERMACULTURE?



PERMANENT

+

AGRICULTURE

= PERMACULTURE



THE STORY OF PERMACULTURE



- Founded by **Bill Mollison**, an Australian ecologist, in **1972**
- Mollison met **David Holmgren**, one of his students, and together they formed the original concept of permaculture
- Permaculture has now made its way across the globe
- It continues to become popular among farmers, gardeners, and environmentalists

WHAT IS PERMACULTURE?



- PERMACULTURE: a **design process** and **ideology** based on **whole-systems thinking** informed by design principles found in nature
- Permaculture-based designs **mimic the patterns and relationships found in nature** and can be applied to all aspects of the human world
 - Agriculture, ecological building, technology, education, economics, philosophy, and probably more!
- Used primarily for **agriculture**



WHY?

- By adopting these principles and practices, we can move away from being dependent consumers and transition into becoming **responsible producers**
- Beyond sustainability
 - Creates a more **sustainable lifestyle and future**, where households and communities can rely on each other
- Growing food and beautiful spaces requires less human labor and produces **less waste**

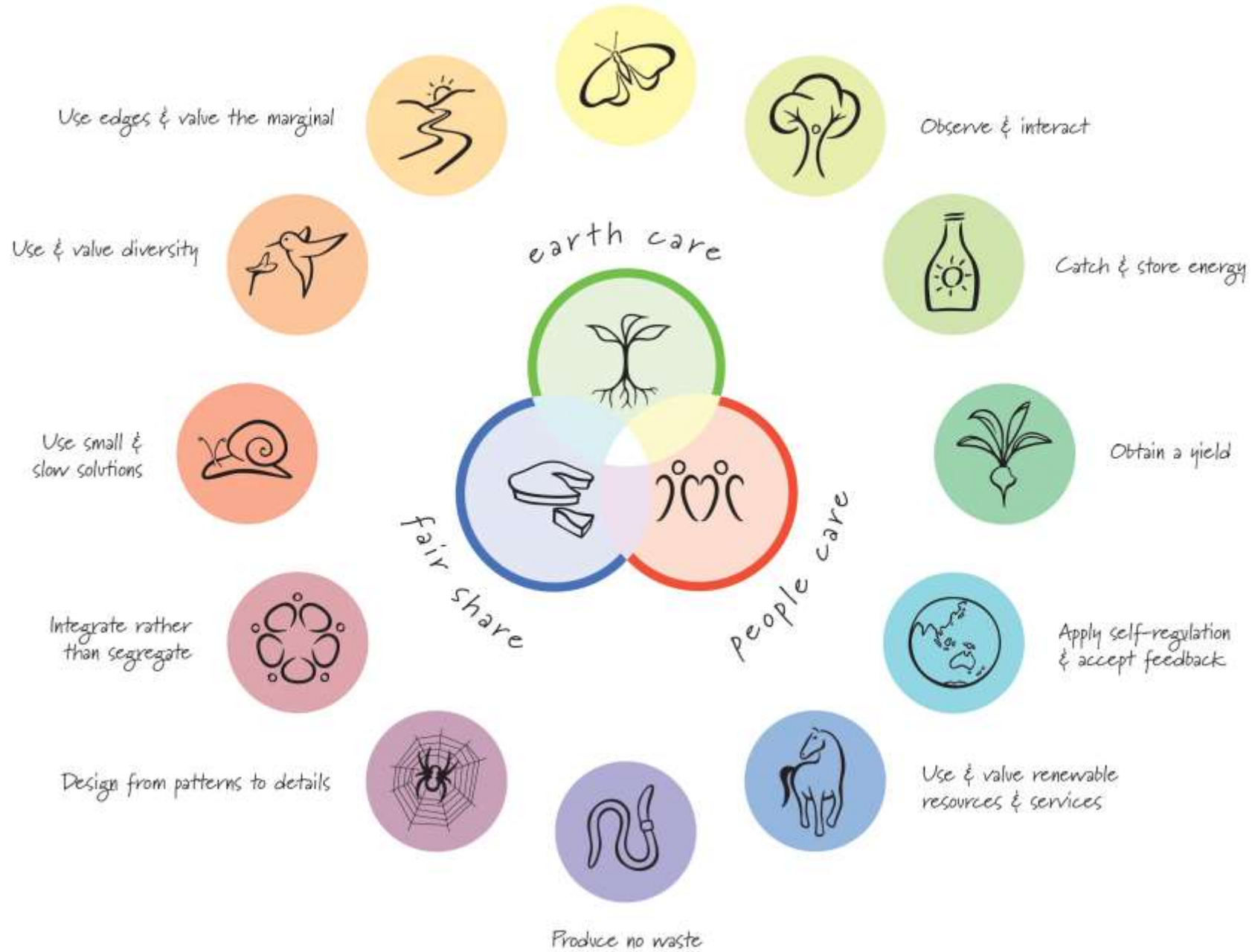


WHY?

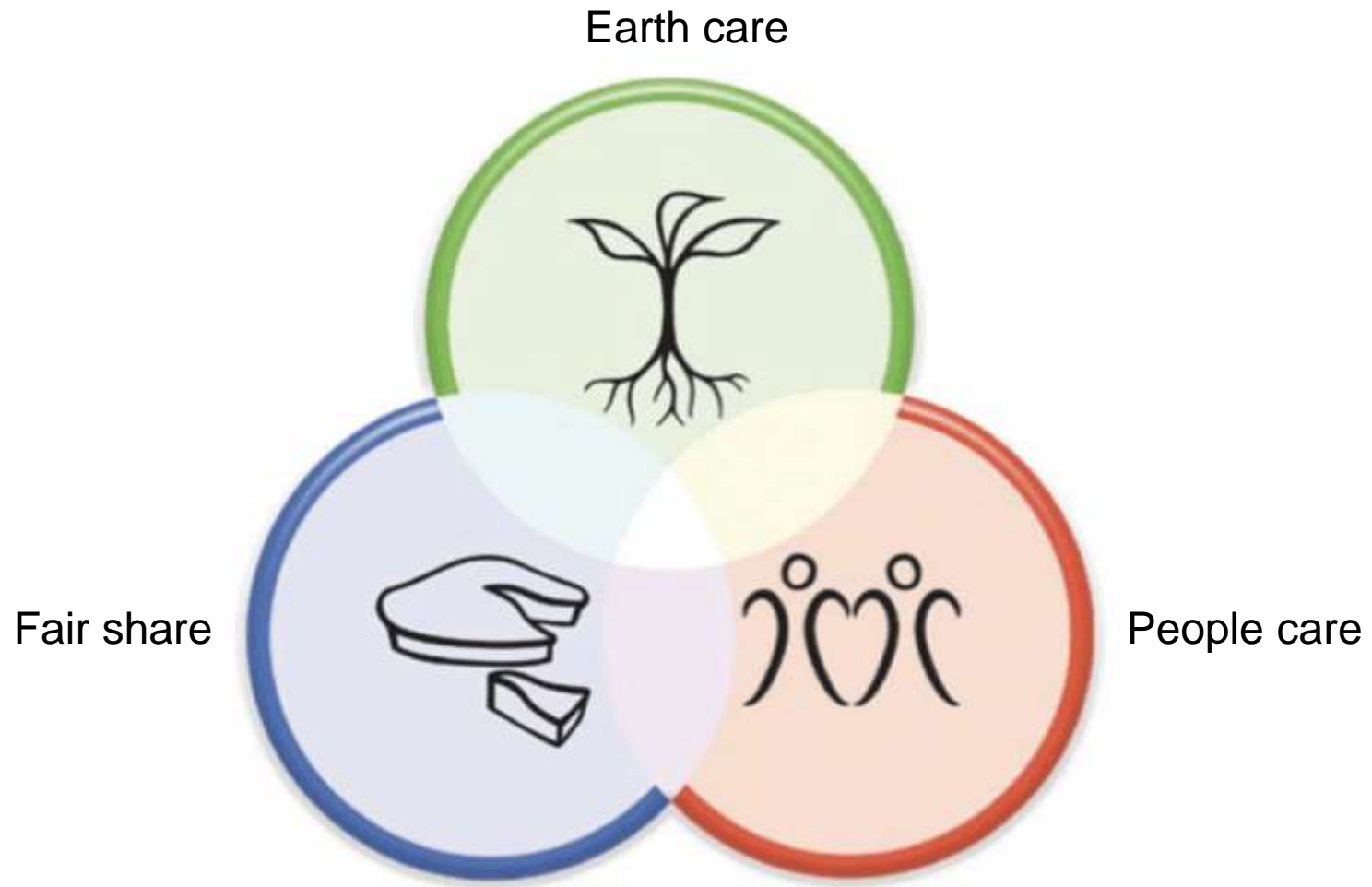
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Creatively use & respond to change

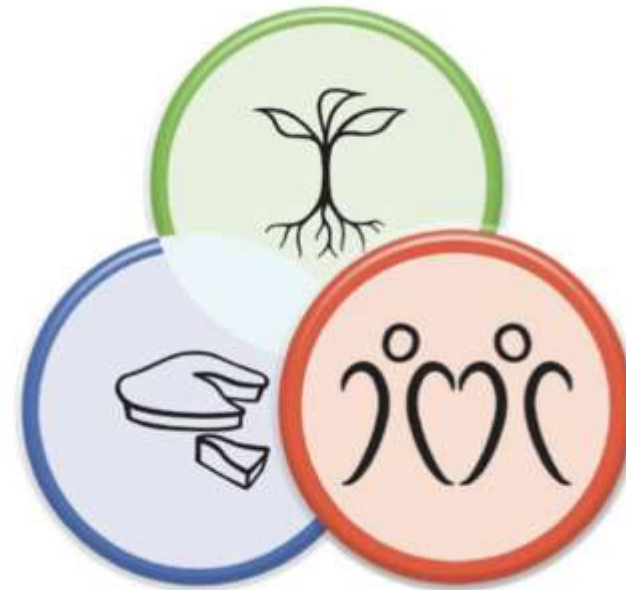


THREE ETHICS



PEOPLE CARE

We need to **look after ourselves and after others.**
There is a need to companionship and collaborative efforts to make positive change. We can grow as people through self-reliance and personal responsibility.



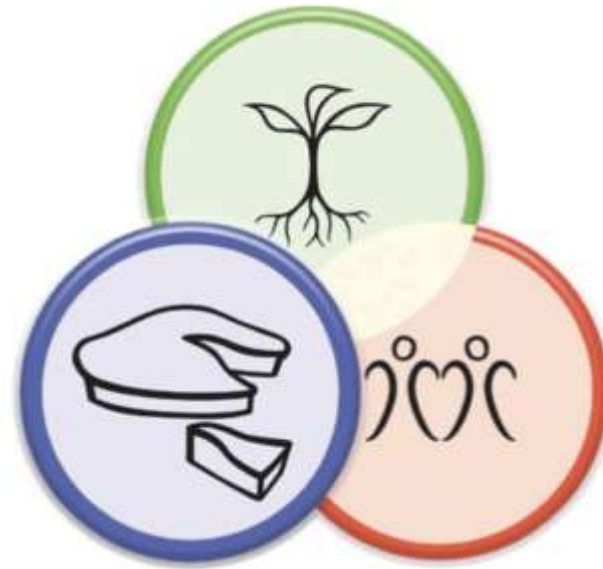
EARTH CARE

We need to **rebuild natural capital**. We need to care for life on Earth. A functioning Earth is in our self-interest, as well as in the self-interest of other life forms.



FAIR SHARE

We need to **set limits and redistribute surplus**. Because we have access to ample resources, we are obligated to share with others. There are limits on how much we can give and take, however.



PERMACULTURE PRINCIPLES



1. Observe and Interact



2. Catch and Store Energy



3. Obtain a Yield



4. Apply Self-Regulation
and Accept Feedback



5. Use and Value
Renewable Resources
and Services



6. Produce No Waste



7. Design from Patterns to Details



8. Integrate rather than Segregate



9. Use Small and Slow Solutions



10. Use and Value Diversity



11. Use Edges and Value the
Marginal



12. Creatively Use and Respond
to Change

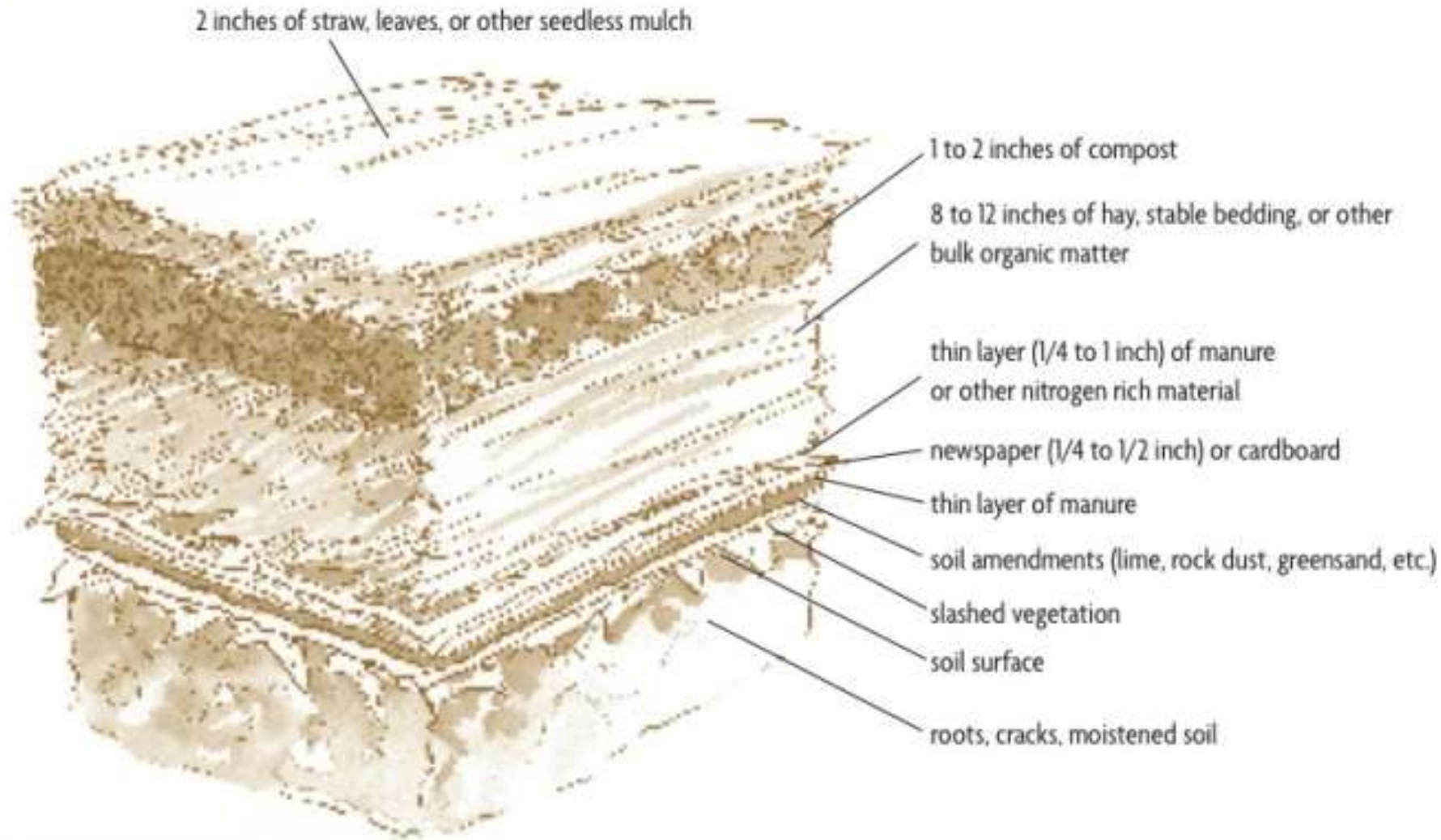
PERMANENT AGRICULTURE

- "Permaculture (permanent agriculture) is the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems."
- **Goals:**
 - Improve soil quality and structure
 - Emphasis on perennials and fruit trees
 - Low maintenance, sustainable food production
 - Closed-loop system
 - High diversity

PERMACULTURE METHODS

- Food forest
- Guild building
- Sheet mulching
- Bioswales
- Hugelkulture
- Herb spiral
- Keyhole designs

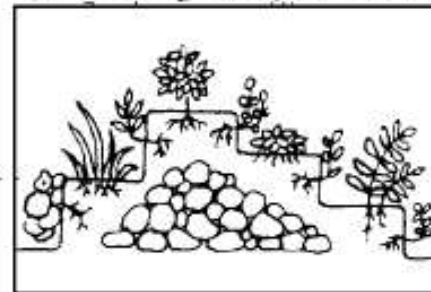
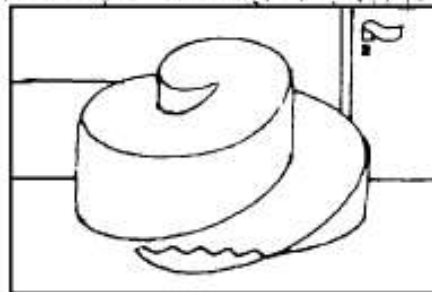
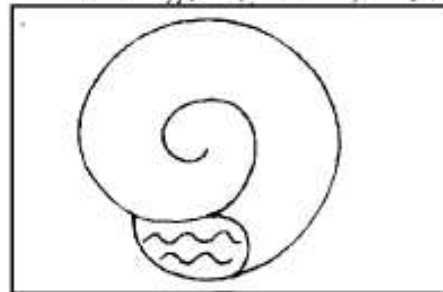
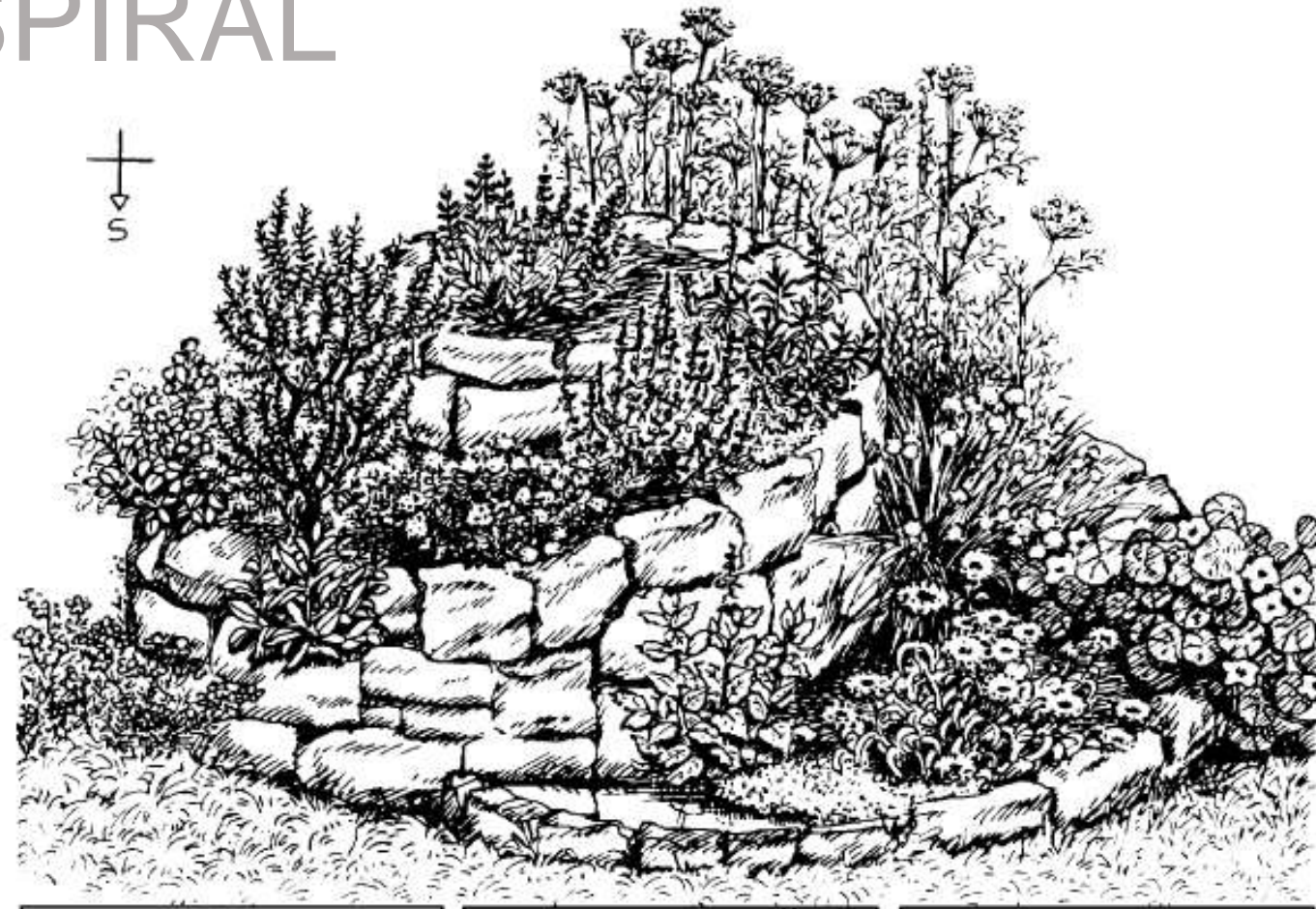
SHEET MULCHING



PRODUCE NO
WASTE

CAPTURE AND
STORE ENERGY

HERB SPIRAL



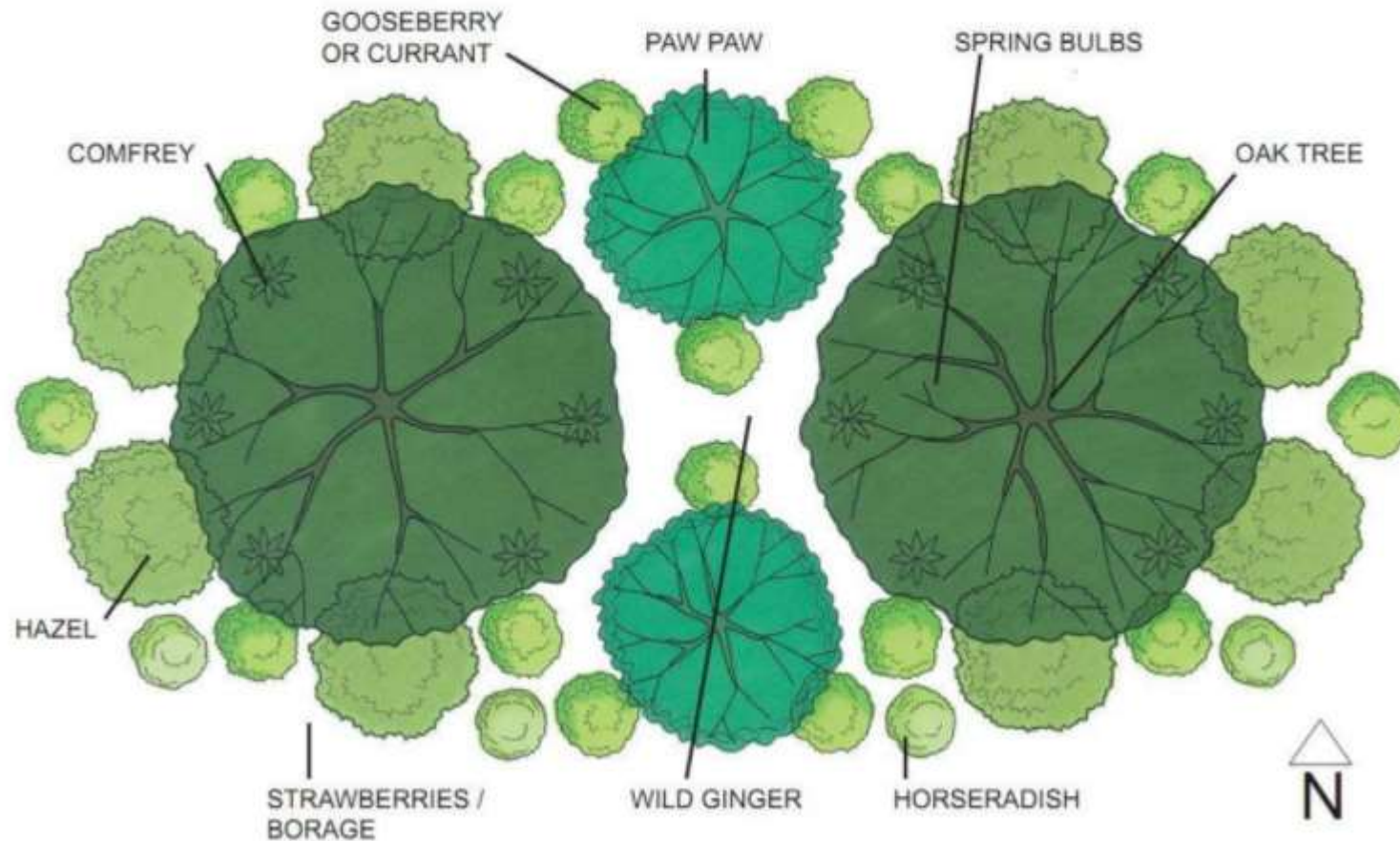
HUGELKULTURE



GUILD BUILDING/ COMPANION PLANTING

OAK GUILD

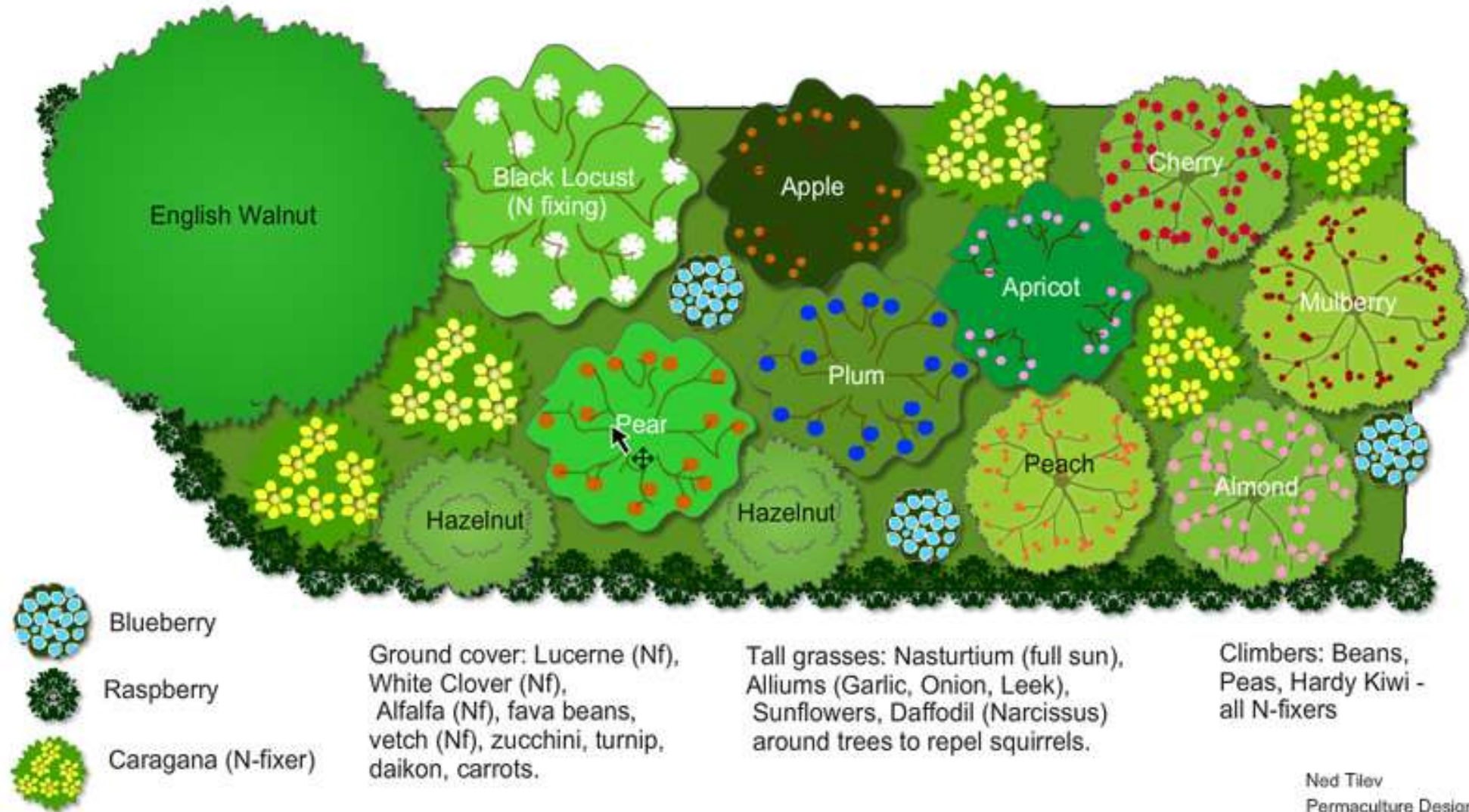
DIAMETER COULD BE FROM 50' - 400' DEPENDING UPON SPECIES AND AGE OF THE OAK TREES



FOOD FOREST

FOOD FOREST
Slovak Centre

N



KEYHOLE DESIGN



BIOSWALE

USE EDGES
AND VALUE THE
MARGINAL

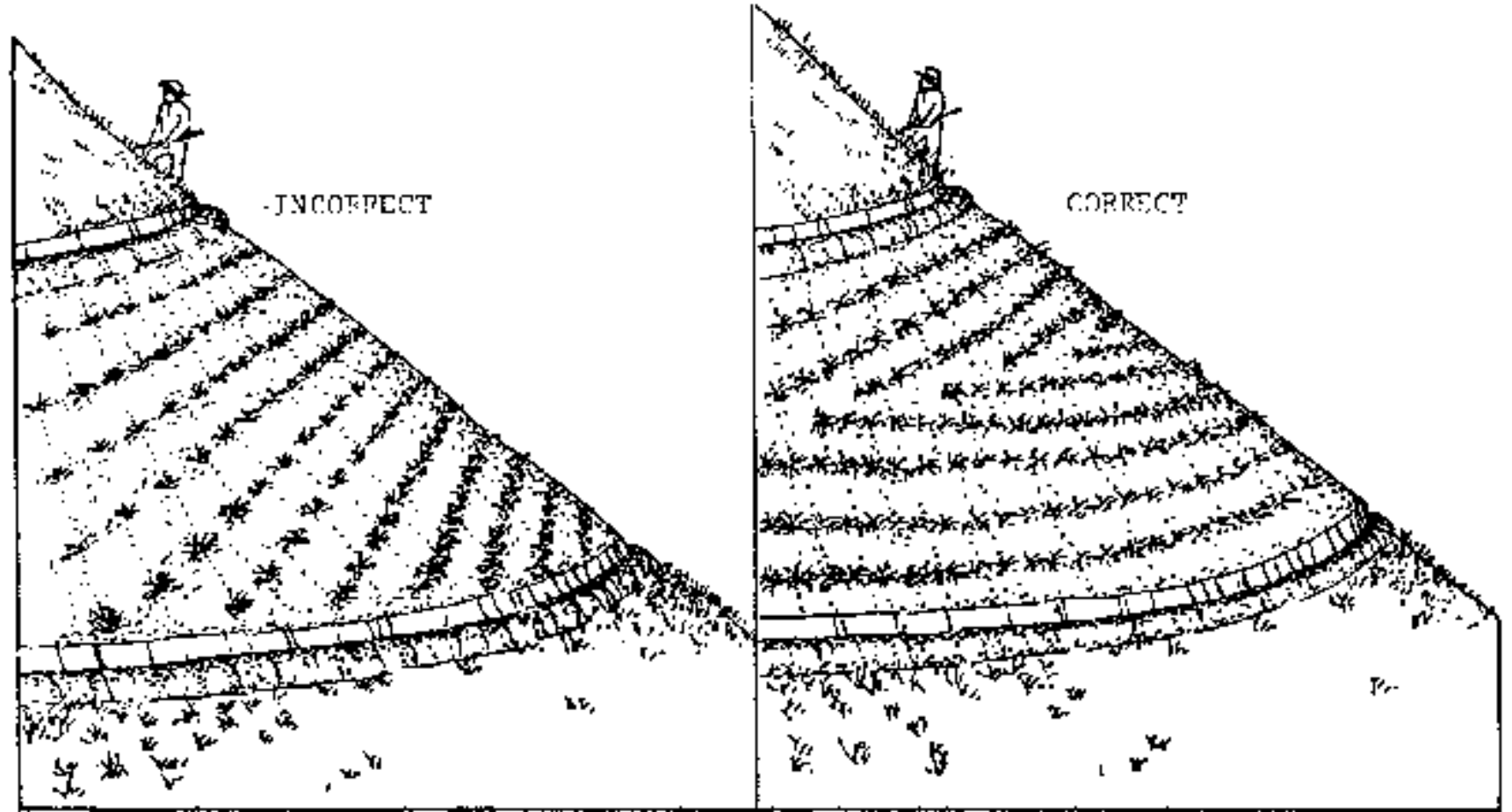
CAPTURE AND
STORE ENERGY



CONTOUR PLOWING

USE EDGES
AND VALUE THE
MARGINAL

CAPTURE AND
STORE ENERGY



RESOURCES

- **A guide for permaculture design principles:**
<https://permacultureprinciples.com/principles/>
- **Free downloads:**
<https://permacultureprinciples.com/resources/free-downloads/>
- *A Designers Manual* by Mollison
- *Permaculture Principles & Pathways Beyond Sustainability* by Holmgren
- *Gaia's Garden* by Toby Hemenway