ZONE 4

PERMACULTURE
Ecological Forces and Flows

Increasing scale and distance decreasing power of influence

Zone 0, Zone 1, Zone 2, Zone 3, Zone 4, Zone 5

Cultural Forces and Flows
Economic Forces and Flows
Re-definition of classic zones:

- **Zone 0** = humans & necessities
- **Zone T** (*technosphere*) = classically Zones 1-3; designed to support zone 0
- **Zone 4** = semi-wild ecosystems
- **Zone 5** = wilderness
The Balance of the Biosphere

• Zones 4 & 5 hold within them all of the essential systems that maintain the dynamic equilibrium of the biosphere.
Such systems include, but are not limited to:

- Nutrient cycles (ie: water, nitrogen, carbon)
- Biological filtration systems (ie: mycelial mats, periphyton, evapotranspiration)
- The metabolic & reproductive systems of all living beings
- Climate, weather, tides, moon cycles, seasons...
- Food webs
- The atmosphere
- Genetic data
The Historic Management of Zone 4
Modern Industrial Cultures:

• Generate vital resources within the technosphere, (Zones 0-3)
  ie: industrial agriculture, manufacturing centers, transit systems, power plants...

• and gather them from Zone 4
  ie: lumbering, coastal fisheries, mineral extraction, hydroelectric, wind, & solar energies...
Modern Industrial Cultures:

- Vast amount of resources are cultivated in fully designed, managed systems (Zones 0-3).
- Heavily imbalanced extraction of resources from Zone 4
- Waste streams deposited in Zones 4 & 5 are harmful to wild ecosystems
Pre-Industrial Cultures:

• Vast amount of resources are cultivated in partially designed, semi-managed, semi-wild systems (Zone 4).

• Greater possibility for balanced extraction of resources from Zone 4

• Waste streams deposited in Zones 4 & 5 are reusable by wild ecosystems
The way that societies tend to interact with Zone 4 typically transitions from:

- Significant dependence on semi-wild resources, vast knowledge base, extensive low-impact management practices, with little intensive agriculture in traditional societies to
- Minimal dependence on semi-wild resources, narrow & specialized knowledge base, extensive highly exploitative management practices, with much intensive agriculture in city-based societies.

Abuse of the land coincides with abuse of people.
The 5 Ideal Functions of Zone 4
1. Refuge
2. Laboratory
3. Garden
4. Buffer
5. Codex
Refuge

Zone 4 can serve as a refuge from the negative impacts of intensive human settlements for:

• Sensitive, rare, & threatened species
• Genetic information & diversity
• Pre-industrial cultures & ideas
• Other marginalized peoples
• The natural cycles that maintain the bio-sphere
Laboratory

Zone 4 can serve as an example for research and the testing ground for:

• Regenerative & sustainable technologies & resources
• Practical ethics based on natural limits
• Spiritual principles & ideals
• Social constructs
• Cutting edge science
• The value of traditional technologies, life-styles, & world-views
Garden

Zone 4 can serve as a vast system for the generation of renewable resources including:

• Wild foods including fruits, vegetables, nuts & seeds, meat & eggs, fish, mushrooms

• Fibers for clothing and other fabric products

• Lumber & other construction materials

• Potable water for drinking & irrigation

• Industrial chemicals

• Fuel in the form of firewood, bio-char fodder, & vegetable oils
Buffer

Zone 4 can serve as a buffer between the human environment and wild lands and systems.

Zone 4 elements may protect human settlements from:

- Extreme weather, volcanoes, desertification & tsunamis
- Negative impacts of insect & animal migration
- The spread of human disease & agricultural pestilence
- Invasion by hostile peoples
Buffer

Zone 4 elements may protect wild systems from:

• Pollution
• Urban sprawl
• The spread of non-native species
• Erosion
• Over-consumption of resources
• Fragmentation or parcelization
Codex

Ancient, pre-industrial, & traditional peoples intentionally manipulated the landscape, “encoding” information and resources such as:

- Genetic information in the form of *cultigens* and designed *polycultures*
- Art & architecture
- Sustainable technologies and land management techniques
- Wisdom
Re-envisioning The Wild
Re-definition of Zone 5

• Zone 5 is a wild landscape in which the 5 *Ideal Functions* are fully present & persist without the need for ongoing, advanced, regenerative modifications by humans.

• In Zone 5 there is a balanced relationship between natural cycles & human interactions with the ecosystem.

• Zone 5 is the climax successional phase of a re-wilded ecosystem, not a geographical area.
Successional Phases of Rewilding Ecosystems

• Technosphere
• Degraded Zone 4
• Re-wilding Zone 4
• Zone 5 (fully rewilded w/ human integration)