Goals Articulation Statement
Homestead & Eco-Development, Hudson River Valley
February, 2009

Goal: *We live nestled in an ecologically & culturally regenerative landscape.*

Objectives:

- Our evolving multi-functional landscape is the home for many generations to come.
  - The land supports true sustainability, regardless of the climate.
  - The underlying patterns and structures start with us, but carry on to our great-grandchildren.
- The biodiversity & ecological resiliency of our landscape is constantly increasing.
  - Our site is part of a thriving ecological corridor, supporting abundant wildlife and uninterrupted connection to conserved local ecosystems (Tivoli Bays,)
    - Riparian zones are protected
  - Well-designed Permaculture Zones of Use create balance between the managed and unmanaged portions of the site.
    - Intensively-managed areas around the home are more productive & human-guided.
    - As distance from the home center increases, the degree of management decreases. Mid-range areas are cleared and walkable, but the far reaches of the property remain unmanaged and wild.
- We work with nature to achieve low-maintenance agricultural & economic productivity.
  - Intelligent human- and animal-scale management maintains the land.
  - We shape our agriculture to fit the land, rather than the land to fit our agriculture.
- Clearly defined access & circulation facilitate flow between numerous nodes of activity & relaxation:
  - Home & work spaces
  - Swimming hole & Sauna
  - Yoga Platform & Amphitheatre
  - Outdoor kitchens, ovens & eating spaces
  - Bonfire & Celebration areas
- Beautiful views abound across the landscape.

Specifics for different areas of the land follow…

Home & Studio Area

- A beautiful and multi-functional area for living, working, and playing.
- Renting the current house supports our economic sustainability.
- Minimal economic or energetic inputs are used to improve the current house.
• The waterfall-pond is available for ice-skating & hockey in the winter.
• The home & studio area functions as a stand-alone homestead, with appropriate areas for food growing, water catchment, and energy production.

Home Farm & Pond Area
• Our home farm focuses on rotational grazing, low-maintenance fruit production, and ecological aquaculture.
• Patterns of wide-spaced tree crops over permanent pasture (silvopasture), Holistic Management rotational grazing, and adequate access through the farm define the land’s layout.
• The perennial stream is a rich corridor of biodiversity, buffered by a riparian forest garden and protected from grazing animals.
• The vernal pond is expanded to support ecological aquaculture: Fish, wild rice, water celery, arrowhead, cattail, and other aquatic crops.
• A multifunctional buffer protects the waterway between the pond and the stream.
• A portion of the pond is kept as shallow wetlands for nutrient cleaning and habitat.
• Orchards & forest gardens line the slopes to reduce erosion and capitalize on good air drainage & sun exposure.

Eco-Development Area
• Four to five attractive, eco-friendly homes create a development with an intention of sustainability.
• Site disturbance is minimized. All bare soil is quickly replanted to useful plant species. Any compaction is removed by keyline plowing.
  o Buildings demonstrate the sound ecological & energy-efficient design
  o Buildings are sited for maximum passive solar gain, and to achieve the least overall road/driveway creation.
  o Excellent insulation and careful construction create low-energy use homes
  o Cisterns are included in the design of every building – for stormwater, greywater, and irrigation purposes.
• A great multifunctional barn hosts the local community with a flexible and beautiful space.
  o Contra dancing, workshops, and a value-added processing can take place.
  o An apartment in the barn houses a potential intern or farmer for the land.
• Eco-development residents have individual homes with shared decision-making for the common land.
• Agricultural land is managed by the resident community, with criteria described in the food goal below.

Forestry & Restoration Area
• We regenerate the chestnut forest through selective thinning, cutting, and replanting of the area.
• Existing canopy gaps are opportunities to direct the successional process.
• Controlled burns manage the challenging understory, support long-term nutrient cycling for trees & nuts, and remove habitat for deer ticks harboring lyme’s disease.
• Fuelwood is harvested from dead and fallen trees. A trial coppice plot explores the possibility of short-rotation woody fuel crops.
• Timber is carefully harvest when the ground is frozen, following a sustainable forestry management plan and ideally the tenants of natural dynamics silviculture.

Goal: We work with the land to create an abundance of delicious food.

Objectives:
• Every year, the health of my local ecosystem increases. Our interaction with the site regenerates the land, constantly building soil and improving the environment.
  o We use rotational grazing on permanent pastures, agroforestry & forest gardening, no-till vegetable production, and ecological aquaculture to grow a full 50% of the food for all site residents. This includes:
    ▪ Grains & Beans
    ▪ Vegetables
    ▪ Fruit, Berry & Nut Crops
    ▪ Animal Products (Eggs, Dairy, Meat, Fish)
    ▪ Mushrooms & Herbs
  o Composting, mulching, & Keyline plowing decrease compaction and increase the soil’s organic matter, decreasing disease pressure and water-logging.
  o Organic & Integrated Pest Management practices support a healthy environment.
• Vegetables & Fruits
  o Permaculture gardens produces a diversity of fresh delicious vegetables
    ▪ We grow local heirloom vegetables & varieties from organic, open-pollinated, non-GMO sources.
    ▪ Greenhouses & cold frames grow greens year-round and provide important season-extending cover in the fall and spring.
  o Thriving orchards & forest gardens spread outwards from all homes, providing an abundance of fruits and nuts throughout the growing season.
  o Along with more exotic fruit crops like hardy banana, northern passionfruit, pawpaw, persimmon, fig and mulberry, we grow a diversity of berries & nuts for fresh eating and storage.
  o A few cash crops (like hardy kiwi, sandraberry, seaberry, and hazelnut) support the overall farm economy.
• Animals
  o Well-managed rotational grazing systems grow healthy animals and support the a resilient productive landscape.
    ▪ Animals are moved every 12-72 hours for the ideal balance between productivity and pasture health.
    ▪ A mix of permanent and temporary electric fencing define paddock boundaries
A gravity-fed watering system delivers drinking water to animals in their daily paddocks.

- A herd of goats provides company, economy, fresh dairy and meat.
  - The herd starts with 3 animals and grows to as many as ???.
  - Goats are well-protected from predators through secure housing and guard-animals.
  - Goat milk is collected for fresh consumption & cheese-making.
- Scottish Highland cattle work with the goats to clear the land in an environmentally-friendly non-fossil-fuel way.
- Chickens happily forage the landscape, providing fresh eggs and meat year-round.
  - Chickens contribute their manure, scratching, and pest-control to the food ecosystem.
  - Local organic grain supplements food scraps and forage in the winter months.
- >>>Free-range or tractored?

**Farmers & Interns**
- Sarah contributes 6 hours per week to the maintenance of a productive ecosystem. Peter contributes 10 hours per week.
- Interns contribute time and energy during the establishment phase of the farm & food systems, but are not part of the long-term management strategy.

**Goal:** *The land is economically self-sufficient – “The project stands on its own”*

**Objectives:**
- Sale of residential lots in an eco-development setting provides the primary income for the project. In addition, the eco-development:
  - Populates the land with people and energy
  - Works with the land towards economic sustainability
  - Demonstrates our ideals and skills as eco-architects
- Appropriately-scaled grid-tied renewable energy systems provide 100% of our energy usage. We move towards this goal as grants and financing become available.
  - Micro-hydro
  - Solar hot water
  - Solar photovoltaic
  - Water wheel (for mechanical energy)
  - Surplus energy is sold back to the grid for a small profit.
- Economic self-sufficiency is supported by a diversity of nutritious foods grown on-site (see above).
  - Based on the crops (especially cash crops), an agriculture assessment eases tax burden.
  - Land is leased or rented to ecological land-based enterprises (e.g. farm, coppice crafts, farm store).
• Timber & fuelwood harvested from the land reduce overall costs.

**Goal:** *Engaging with the land, we expand our abilities as ecological architects.*

**Objectives:**
- This project is a springboard for deeper connection to the land and ecological design.
  - Our other architecture projects connect more deeply with the landscape through our deepening understanding of our own land.
  - This process culminates in excellent marketing material for our design businesses.
- We explore different avenues for time-lapse landscape modeling of the property.
  - Our conceptions of sustainability are widened as we observe the 10, 50 & 100 year outlook for our plan. We visualize strategies for intergenerational growth.

**Facets of EcoVillage Design & Development**
From GaiaEducation’s Ecovillage Design Education Course 2006

**Worldview**
- Holistic Worldview
- Listening to and Reconnecting with Nature
- Awakening & Transformation of Consciousness
- Celebrating Life: Creativity and Art
- Socially Engaged Spirituality

**Social**
- Building Community & Embracing Diversity
- Communication Skills: Conflict, Facilitation, and Decision-Making
- Personal Empowerment and Leadership
- Health and Healing
- Local, Bioregional and Global Outreach

**Economic**
- Shifting the Global Economy to Sustainability
- Right Livelihood
- Social Enterprise
- Community Banks and Currencies
- Legal and Financial Issues

**Ecological**
- Green Building & Retrofitting
- Local Food
- Appropriate Technology
- Restoring Nature and Rebuilding After Disasters
- Integrated Ecovillage Design