

Breakout Session Using Edible Trees and Other Species in Design

Facilitator: Rafael de Grenade, Desert Oasis Initiative

Hopes/Why attendees came to this session:

- Sense of Scale for Design strategies: Home, Neighborhood, City
- Tiering – overstory, middle, understory, irrigation
- How to get nutrition, hands-on knowledge to community -> \$\$ - providing small farm jobs
- Initiatives that provide incentives for community gardens and for people with empty lots -> decentralized model to deal with needs of marginalized communities in particular
- Decentralized oases, seasonal wetlands, momentum building
- How to reach people in food deserts

Watershed Considerations (Santa Cruz watershed)

- Two rainy seasons (distinct qualities – summer rains helpful for water table, winter rains helpful for topsoil; storm runoff – roofs, paved surfaces)
- Water table and aquifers (Claire Zucker at PAG, new report on remaining high water tables)
- East side as oasis
- Contents of water (pH level, chemicals, etc)
- Harvest methods for storm runoff (curb cuts coded) at neighborhood scale and personal scale
- Connecting w/existing groups and using/updating templates (Watershed Management Group – resources/manual – missing piece is urban food forests; Sonoran Permaculture Guild)

Soil

- Analyzing soil contents in empty lots
- City Composting program, Brush pick up, Fairfax Dump, Zoo? University of Arizona Compost Cats program, Schools

Plants

- Use of space in city: right plant in right place - Perennial species from a design perspective?
- Hardscape conflicts – utilities/infrastructure with debris/litter, appropriate root space, water needs and drainage issues
- Air flow and temperature considerations (cold air drainage, canyon effect, solar exposure, microclimates)
- Tree cover needed to reduce urban heat sink
- Under use of big desert shrubs – ecosystem value, food value

- Politics of planting trees: not adding trees under power lines, but plant something that won't grow too high, ordinances
- Make problems into opportunities: like use of existing structures for shade/rainwater/trellis opportunities; human-made shade and water structures
- Revamp appropriate city tree/plant listing and check list against water needs of plants
- Native trees – birds show up in backyard when native thorny desert shrubs are present
 - Mesquites, ironwoods, acacias, palo verdes, oaks – high elevation, good food sources
 - Temperature, space, time until maturity, elevation,
 - Lycium – wolfberry, hackberry (Celtis), Rhus, Condalia, Zizyphus, jojoba, larrea
- Using native species instead of introduced species

Climate Change Considerations - Use of species from farther south

People Considerations – how to draw people in

- Aesthetics, shade, medicinal plants, fruit, natives and non-natives,
- Edibles: palms, native palms, date palms, pecans, almonds, pistachios, pomegranates, mulberry and olive ordinances (pollen) county-wide
- Look to other deserts to find out what works there
- Question of invasive species
- Broadening people's perspective/understanding of what is possible – natives, food plants
- How to manage trees we do have? Labor question and expertise question – grafting, pruning, water management
- Management of Urban Forestry
- What is a plants natural form? (what do mesquites do in the desert - provide buffer zone as a nursery, in addition to food source) – role?; reproduction, seed-saving; selecting for species that are flavorful; selecting native species for food and fiber;
- How to combine native trees/shrubs with vegetable crops?

Education

- Lists – drought tolerance, food plants, planting food in high population spaces, shopping centers, banks, rainwater resources,
- Layering under trees vines, pollinator species, herbs
- Undisturbed soils – go for desert plants; disturbed – go for fruit trees
- Resource list for economics behind not disturbing lands too much, design with nature, *Village Homes* by Michael and Judy Corbitt

Economics

- Funding for neighborhood forests to stimulate food production
- Mapping, Craig's List, exchange

- Creating local economies w/local foods
- Dollar figures associated with urban forests for county/city/individual economy (nationaltreeandbenefitcalculator.com, phenology website)
- Health department regulations – open markets for home-processed food products?
- Diverse, person-to-person local economies
- Park District – flexibility? Community gardens in new parks with community vetting for master plans

Recap

- Awareness to build partnerships and identify, connect, and leverage resources
- Manual: Water, Soil, Plant, Pollinators/Fauna resources and information, with updated lists
- Site Characteristics: biotic/abiotic factor
- Urban-Agro-Ecosystem: pollinators, habitat, and food/medicinal Recipes – how can I use this plant for food?
- Management – pruning, water needs
- Decentralized spaces and economies (moving away from agribusiness towards local)
- Placing real values on current resources
- Integrating youth and technology innovations with farming/urban ecosystem