The Augmented Reality (AR) Permaculture Food Forest Lab
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What is a Permaculture Food Forest?

A food forest mimics a forest edge that is includes edible plants.

Picture all of the vertical layers of a food forest growing together: tall trees, small trees, shrubs, herbs, and ground covers. Tall, canopy trees grow inward from the edge. Correspondingly, smaller trees peek out from undergrowth as the tall trees catch the sun's rays. Shrubs step farther out into the sunshine, along with herbs, flowers, and groundcovers blanketing the sunniest edge.

A typical forest edge can look a little busy. Sometimes vines grow up the trees and mushrooms grow under the tallest trees in the shade. All of these layers of the forest stack together, each situated for sufficient sun exposure. Intertwined, they can produce food and a vibrant, productive, low-maintenance, and relatively self-maintaining ecosystem.

A healthy food forest doesn't need humans to weed or fertilize it.

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Research at the Lab

AR Permacultural forest food scientist, Annetta Ward, PhD, straps on her goggles in the AR lab, and hikes along an old barbed wire fence line to locate a mature food forest habitat that was started one year ago in the AR Permaculture Food Forest Lab. Dr. Ward is utilizing a base video of the food forest plus an actual living food forest as a research foundation.

She has been building a sizable AR windbreak feature on the site that makes tree shade, and a natural canopy that helps to retain moisture.

In sum, the major structural elements (or research sites) for her AR work are:

1. The actual Nature site.
2. Base video of the site.
3. AR construction of the emerging food forest (ongoing).

The AR / eco interaction is deeply studied:

Annetta throws digital leaves on the ground that create AR mulch, nutrients, and microorganisms for soil communities. She constructs other key food forest layers with her AR database including ground covers and nitrogen fixers, plus lupines and clover.

While on her "AR farm tour," she reviews the annual vegetables that intermix with perennial herbs with e-shrubs and vines. Annetta harvests nuts and mushrooms before ending her AR session for the day. Key questions in her current research vision include:

1. Ability to duplicate insect ecology in the Lab?
2. Food crop harvesting and soil building in augmented reality?
3. The Lab has a teaching portal?

Sources:

Food Forest data
https://www.tenthacrefarm.com/create-food-forest/

Photo
https://i.pinimg.com/736x/6f/7b/59/6f7b5990eaff30354f8e75810d22573b.jpg

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https://www.planetshifter.com/pdf/AR_Permaculture.pdf