

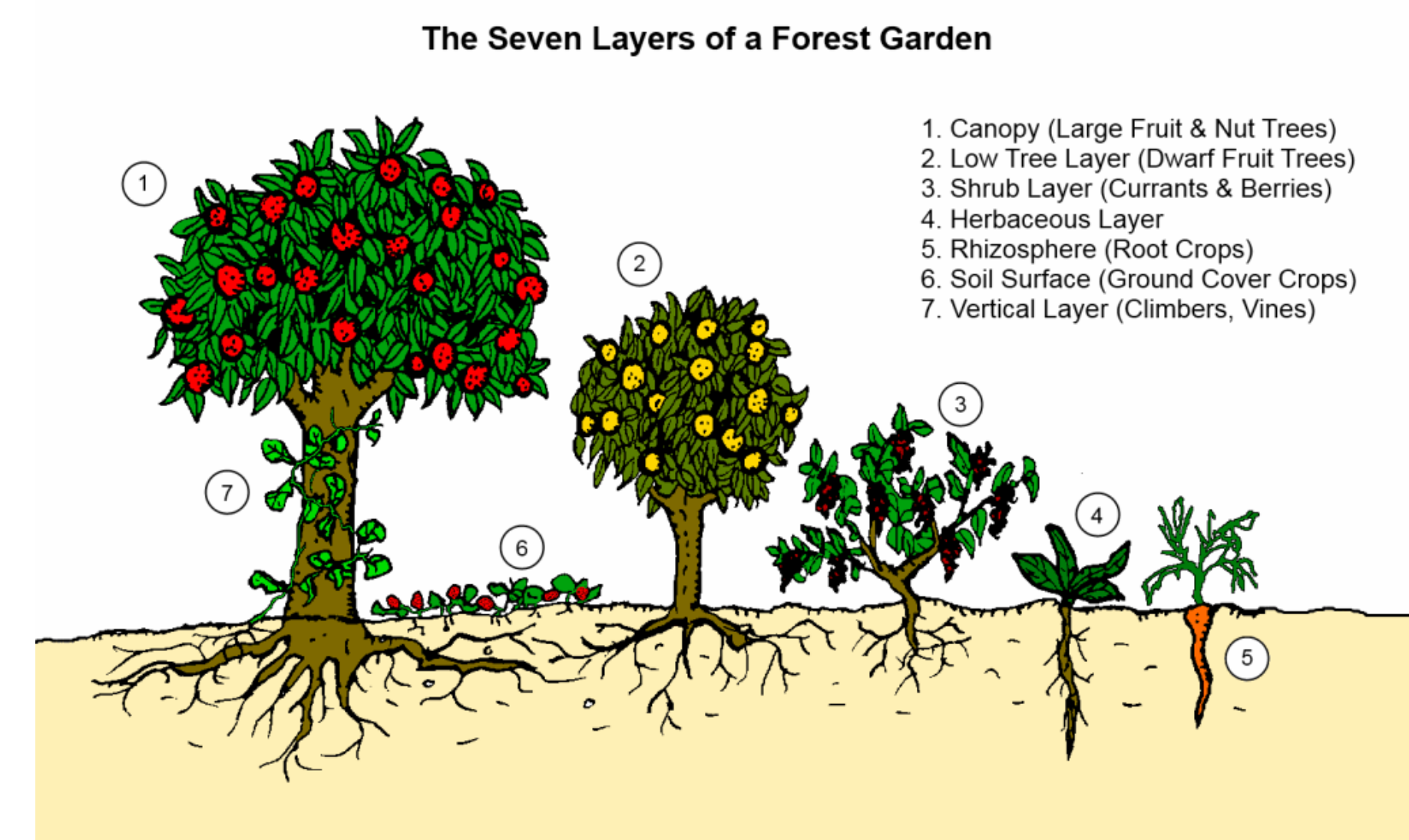
# Participatory Design in Urban Agriculture

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## 1 INTRODUCTION: What is Urban Agriculture? Where does it apply?

Urban Agriculture can take on many forms. The focus of this research is on urban food gardens. A food garden can act to integrate a community through health, education, and better quality produce. As the trend of healthy organic goods begins to grow, much of the lower quality produce tends to become the staple of low-income levels. Food gardens in low-income urban neighborhoods increase this accessibility to quality food. Opening up the opportunity to design this food garden to the community is one way of encouraging residents to come work together toward the overarching goal of better quality food and life. Below is an example of the types of produce available in a typical food forest garden:

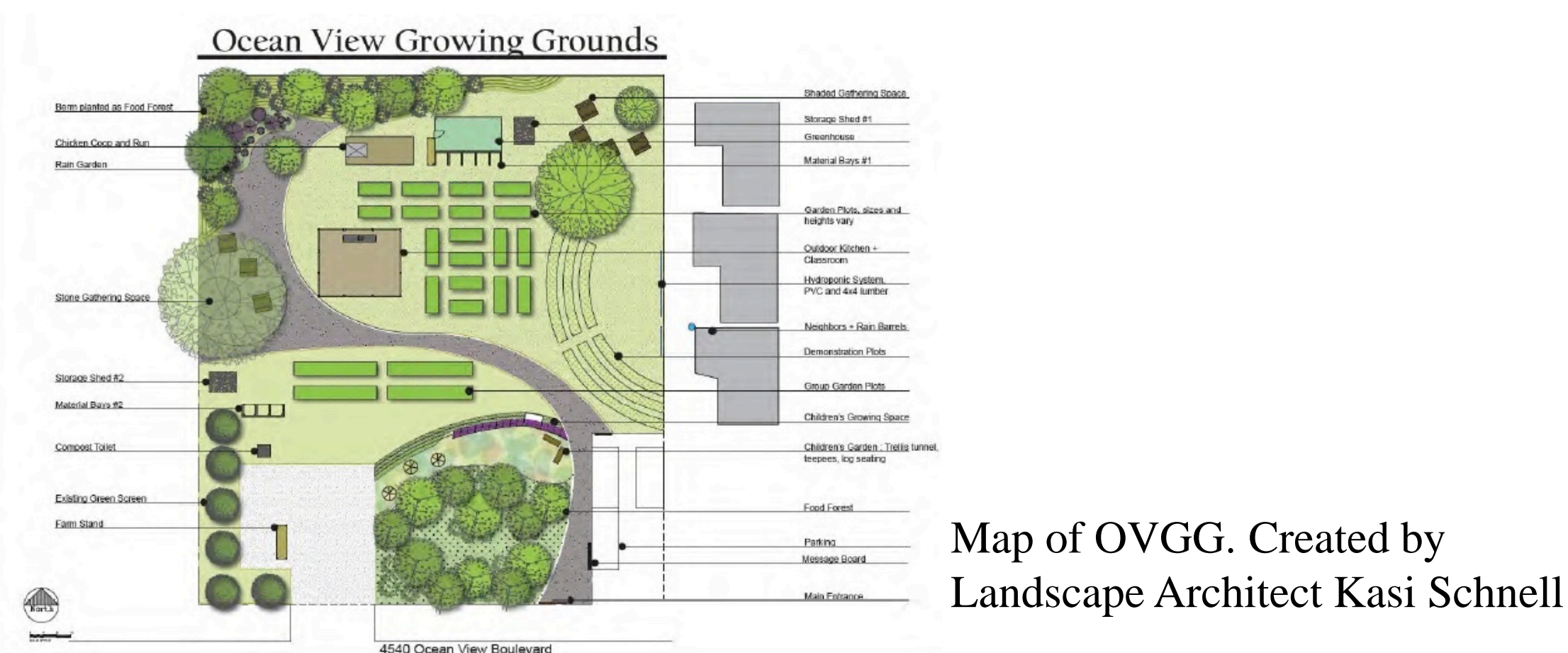


## 2 PROJECT GOAL: Finding the Participation for and Assessing the Feasibility of Urban Agriculture in Southeast San Diego

Two areas in Southeastern San Diego were used as case studies in measuring the participation necessary for designing urban agriculture.

### 1. Ocean View Growing Grounds (OVGG)

Here the community members partake in gardening and have the potential to grow their own produce. Landscape architect Kasi Schnell volunteered to take the community's vision and translate it into a site plan map. The design process for this community took form as a design charrette, where people came together to brainstorm the ideas and collectively input what their envisioned garden would look like. The resulting plan includes a children's area, kitchen, raised beds, an herb garden, and greenhouse. However, acquiring the necessary participation for implementing the envisioned planned projects is a different story, and it is one I wanted to investigate.



Map of OVGG. Created by Landscape Architect Kasi Schnell

### 2. Earth Lab by Groundworks

This non-profit organization strives to create a "food hub," in which agriculture is brought back to the urban environment in collaboration with local businesses, schools, and the community. Research conducted included finding a business model to achieve this "food hub," in which the community could gain access to quality produce through the non-profit organization instead of the conventional big industry supermarket.

## 3 FINDINGS: The Needed Participation/Education



Raised bed construction process at the OVGG



Proposed Greenhouse for the OVGG

### 1. OVGG

The Ocean View Growing Grounds relies upon core members of the community that readily use the garden. The new design developments on site include its irrigation system, raised beds, and its hope for a new greenhouse. The Greenhouse was designed in SketchUp software by a community member, proving the tangible progress of design implementation when a person takes ownership over the community garden. However, the site still lacks the needed community participation in yielding enough food and produce to sustain the entire neighborhood. Educating its users in permaculture is the crucial first step in fostering the culture of Urban Agriculture. Students at UCSD have already tapped into the practice of composting. Fostering this relationship between students and the community could prove educational and beneficial to both parties.



Student-initiated composting system at UC San Diego

### 2. Earthlab

The Earthlab has an ambitious goal of reaching out to its community members as well as University students as a local food hub. Upon more research of gauging this feasibility, it is not a goal that will be met without much time and drawbacks. Suggestions included starting the build a network with the local middle-school cafeteria rather than starting large at the University-scale. This suggestion was made based upon a feasibility report previously made for the New Roots Food Hub, a start-up non-profit comparable to the Earthlab. In light of creating a business model for the Earthlab, federal grants are a good way to gather funding to start the organization operations. The Sustainable Agriculture Research & Education (SARE) Grant is one that was proposed for the Earthlab to take advantage of for future steps.

## 4 OTHER CASE STUDIES: Successful Participatory Design

Eagle Street's Rooftop Farm, New York



Upon looking at other case studies, many successful food forest hubs in urban areas had steady participation from the community. One particularly successful is New York's Eagle Street Rooftop Farm. Initiated by social media-savvy graduates, the urban garden collaborates with members of the community as well as farmers markets, local charities, and education institutes. The roof was waterproofed and measurements were taken to create a structure that would be sufficient to hold up the garden. The funding for this project was from a grass-roots fundraising approach, yet the business itself is classified as a for profit organization.

Another technique utilized to gather participation in designing food gardens was demonstrated at the University of Brighton in London, England. Students in an Urban Design class were asked to conduct a site analysis on a potential site above a centrally located campus restaurant. They were able to map solar patterns and best places to set up an irrigation system. This participation encouraged the students to come back after the garden was constructed. The food garden currently grows organic vegetables and herbs that are readily sold on campus and served in its restaurants.

Implementing the exact same techniques from these case studies is not the goal. However exploring other successful food gardens that do exist, provide perspective on how to approach the food forest at the Ocean View Growing Grounds.

## 5 METHODS OF DATA COLLECTION/ANALYSIS

### 1. OVGG

- Majority of research analyzed is sourced from first-hand experiences with the OceanView Growing Grounds and its community members.
- Collaboration with landscape architect Kasi Schnell, also provided insight to what has been done to achieve design participation in making the food forest garden.

### 2. Earthlab

- Interviews with community members around the area including within Foodland, the local grocery market, were conducted.
- Basic knowledge on Permaculture was acquired through
- Acquiring the New Roots Food Hub Feasibility Report was through the established network of Groundworks

All other research findings were based upon readings on Urban Agriculture

## 6 CONCLUSION/NEXT STEPS

The two areas in Southeast San Diego currently are within a food desert, in which fresh produce is not of local vicinity, but relies upon its hinterlands. In both case studies, something revolutionary takes hold. The design of the garden in OVGG may not have the technology of hydroponic gardening or sophisticated composting systems such as the Eagle Rooftop Garden in New York. And the Earthlab is not yet a booming food hub in which local schools and the community gain access to quality produce. But both have the mission to serve the same community. Moreover, the other case studies outside of Southeast San Diego serve as inspiration and hope for what could happen with the right kind of community participation. Lessons learned include the power of creating a platform through social-media to generate buzz, opening up opportunities for students to learn permaculture techniques, and branching out towards businesses to create a local food network.

The future of Urban Agriculture in Southeast San Diego depends upon the local networks created within it. Perhaps the two areas will collaborate more in the future as their goals align, serving the local community.

### Acknowledgements:

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