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Seattle's Orchards: A Historic Legacy Meets Modern Sustainability

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SEATTLE'S ORCHARDS: A HISTORIC LEGACY MEETS MODERN SUSTAINABILITY

by

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"There's a tsunami of interest in urban agriculture sweeping the nation; don't reach for your sandbags it's time to grab your surfboard" – Bob Baines, Grounds Maintenance Crew Chief for the Seattle Parks and Recreation Department (Interview 10/24/11)

Introduction

Growing up in Seattle, WA, I was exposed to all of the outdoor activities afforded by my proximity to the mountains, ocean, forests, and countless other green spaces. I can remember spending my weekends and summers bicycling along the Burke-Gilman Trail, kayaking on Lake Union, picnicking at the beach and hiking Mt. Rainier. It was not until college that I realized just how much the connections I made with these landscapes as a child had shaped the person I had become. Therefore, it seemed only natural that the subject of my thesis would be associated with the Seattle landscape that conjures so many fond childhood memories for me.

It was during an interview with James Rooney that I learned that there were numerous community orchard projects all across Seattle whose purpose was to increase their visibility in the city landscape. Rooney, president of the Board of Directors for City Fruit, a Seattle non-profit organization that harvests fruit from trees grown on residential and public properties and donates it to local food banks, mentioned that all of these orchards were planted somewhere between a year and a little over a century ago. However, following decades of neglect at many of these sites, communities have recently become engaged in orchard rejuvenation projects with some help from organizations such as City Fruit.

I began to investigate the history of these orchards, and as the number of open tabs on my web browser increased, and the stack of books on my desk grew higher, I became more and more curious about what I had stumbled across. An interview and extremely memorable conversation with Don Ricks, current president of Friends of Piper's Orchard, a rejuvenation project at

Carkeek Park in Northwest Seattle, captured the passion that people have for these historic landscapes. These orchards represent a connection to communities' histories, and provide an opportunity for them to rediscover a relationship with nature that has, in many cases, been lost for decades. Speaking with other individuals about their care for and involvement in these orchard rejuvenation projects year after year inspired me. Their creativity, perseverance, and deep-seated dedication to preserving the historic legacy of these orchards inspired me. As I began to write my thesis, I started wondering whether the strong affinity I have always held for the parks and green spaces of my childhood was the same sentiment that communities feel for the orchards they tend.

Through conversations with orchard stewards, it became apparent that these rejuvenation projects have been very significant to the surrounding communities. As I began to explore the reasons why Seattle's orchards are significant, and significant to surrounding communities, I started to wonder how the work accomplished at these sites could become sustainable. Thus, these questions shaped the subject matter of my thesis.

What is an Orchard?

Since their introduction to the U.S. in the 1600s, orchards have been manifest in a number of different physical forms, although they share some similar characteristics. Susan Dolan, a Historical Landscape Architect interested in the preservation of historic orchards in National Parks, offers an umbrella definition of orchards as "a horticultural system centered upon a plantation of woody trees of fruits or nuts" (150). However, what I refer to as Seattle's orchards are not actually orchards. These orchards are technically referred to as fruit trees because they "exist in small groups where they were deliberately planted, or may be irregularly

distributed, as they are the remnants of a fragmented, former orchard" (Dolan 151). Even though the fruit trees in Seattle are not orchards, communities refer to them as such because these remnants are symbolic of the orchards of centuries past. Therefore, for the purposes of this thesis, Seattle's fruit trees will be referred to as orchards.

Why Orchards?

There are orchards or remnants of orchards all across the U.S. However, Seattle's orchards are particularly worthy of note for several reasons. First of all, Seattle may be the only urban environment in the U.S. that can still boast having an extensive network of orchards containing an assortment of heirloom varieties planted by early settlers to the region. These orchards have managed to resist the implications of urban development, which Darrin Nordahl's *Public Produce: The New Urban Agriculture* depicts as one of the main reasons why agricultural production was driven out of many other cities in the U.S. Although urban development has posed a threat to some of these spaces over time, communities have fought against these measures because the orchards have always been recognized as extremely valuable landscapes.

Seattle is also one of the few cities in the U.S. where a grassroots urban agriculture movement has taken off with the support of the municipal government. With the growth in Seattle's urban agriculture movement, or the "activities related to the production, processing and distribution of food within cities" (Fisher and Roberts 21), orchard cultivation has recently gained more attention for the contributions it could potentially make. The goal of many of these orchard projects is to increase the productivity of the fruit trees. Communities have begun to exercise heavier pruning and pest and disease management. However, in order to continue this work, they must identify ways to sustain the projects through community energy, support, and

funding. The City of Seattle could play a role in contributing to the sustainability of these programs, but in light of the fact that interest in orchard cultivation is a rather recent development, this has not happened yet.

The Seattle municipality has historically been supportive of community-initiated urban agriculture. The roots of the contemporary local movement are found in the beginning of the P-Patch Program. In 1971, Rainie Picardo allowed some local residents and students to garden on his piece of farmland at no cost. During the second year, residents decided to establish a community garden and participants paid $10 for a plot of land and access to water (Hou, Johnson and Lawson 50). The next year, Picardo no longer wanted to pay the property taxes on a piece of land he was not using, and decided to sell the land. However, community members wanted to continue to cultivate their plots of land, and proposed that the City buy and lease the land. The harvest at the end of the year was so successful that the City supported the continuation of the program by appropriating funds and organizing the P-Patch Program (Lawson 246). Since the City purchased the original p-patch in 1975, the program has grown to plant community p-patches all across Seattle. The success of the program is due in part to the fact that it was incorporated by the City and is now operated by the City's Department of Neighborhoods.

More recently, the City has supported urban agriculture because it can help create secure and sustainable food supplies for local communities. In April 2011, Andrew Fisher and Susan Roberts submitted a report on behalf of the Community Food Security Coalition to Seattle's Department of Neighborhoods. This report surveyed national and local urban agriculture efforts and made recommendations for places in which the City can actively participate in developing and implementing a sustainable local food system. Although the municipality plays a significant

supporting role in the success of urban agriculture, central to any local food system is the work accomplished by communities.

The implementation of local food systems is dependent upon having a strong foundation of community support, and this is an identifiable characteristic of these orchard projects. They have achieved this quality through community development, which Laura Lawson, author of *City Bountiful* and the Assistant Professor of Landscape Architecture at the University of Illinois, Urbana-Champaign, defines as the social, economic and physical activities that are meant to empower and improve various aspects of a community (294). While the orchards themselves may not be a dependable local food supply yet, the work residents are accomplishing together is helping develop stronger communities. These projects are motivating citizens to participate through educational workshops, creating sustainable relationships amongst residents through outreach events, and empowering and revaluing these public spaces. Ultimately, community development is integral to the urban agriculture movement because it requires the activism and engagement of a cohesive network of local communities.

Methodology

Since there are far too many orchards in Seattle than time would allow to survey, only eleven orchards were chosen for this research. These orchards were each selected because they occupy a number of different communities and unique spatial locations all across Seattle. Some of the orchards are situated next to freeways, while others are hidden, or tucked away in parks. These sites were also selected to have a balance of historic and more recently planted orchards, illustrating a great amount of fruit tree biodiversity.

The research for this thesis was conducted through literature reviews, some archival research and telephone interviews. Interviews were conducted with a community orchard steward from nearly all of the eleven sites surveyed because they have the best idea of the current state and future sustainability of these projects. Although the questions for each community member were tailored to their areas of expertise, the general questions were:

1. What is the history of the orchard?
2. How did this orchard project begin?
3. How did you become involved in this orchard project?
4. What is the state of the orchard – are the trees healthy, are there pests, and can the fruit be harvested yet?
5. What is the Seattle Department of Parks and Recreation (DPR) role in maintaining the orchard? Has the orchard project benefited from this partnership?
6. How are the surrounding community members becoming engaged in this project?
7. Have you collaborated with other orchard projects or community organizations?
8. How has the community benefited from this orchard project?
9. How is this orchard project funded?
10. Are there any factors that impede the sustainability of this project?

In light of the fact that most of the orchards discussed are located on what is now DPR-owned land, the sustainability of these projects is to some extent contingent upon their support for this initiative. Three DPR employees were interviewed and asked the following questions:

1. What are your responsibilities as a DPR employee?
2. Do you know the history of the orchard at (*insert name of park)?

3. How has DPR's recent budget cuts affected the department's capacity to provide support for these orchard projects?

4. How receptive has DPR been to these orchard projects?

5. What do you think the future of the department's support for these orchards will be like after the Seattle Parks Fruit Tree Stewardship pilot project ends?

6. What do communities gain from working and harvesting fruit from the orchards?

Overview

In the following sections, I will begin by discussing the significance of Seattle's orchards through a look at the history of the orchard trade. I will detail the introduction and spread of orchard cultivation in the U.S.; the European settlers that planted orchards as a means of subsistence, and the changes wrought upon cultivation by the standardization and specialization of the industry. I will then trace the origins of the historic orchards in Seattle, in addition to describing the beginnings of the more recently planted community orchards. I will continue with a discussion of the contemporary significance of Seattle's orchards through a survey of the different community organizations that are involved in rejuvenating old orchards and developing new orchards. I will articulate the ways in which communities have benefited from their participation in these projects. I will then question what responsibilities the City and communities have in these orchard projects. Finally, I will conclude with a discussion of the sustainability of Seattle's community orchard projects.

"It is remarkable how closely the history of the apple tree is connected with that of man" – Henry David Thoreau (Essay "Wild Apples" 1862)

Chapter 1: The Evolution of Orchard Cultivation in the U.S.

The remnants of orchards all across the U.S. are historically and culturally significant. They tell the stories of various aspects of early settlers' lifestyles – their settlement patterns, subsistence methods and such. They also contain a narrative of the history of horticulture in the U.S., beginning with their introduction and spread, as well as the standardization and specialization of the orchard trade, which led to the development of the contemporary orchard industry. Since most of these historic orchards no longer exist due to development, it is even more important to revere their remnants in urban environments.

Introduction and Spread

During the early 1600s, European immigrants arrived on the eastern seaboard of the U.S., bringing with them fruit tree seeds with origins in parts of Europe and Asia Minor, and knowledge of their cultivation in the Old World. As the region became more populated, orchards began to emerge in two distinct fashions in many of the settled areas. Wealthy English settlers owned pieces of property characterized by walled gardens, inside of which were fruit trees "densely planted in formal arrangements and pruned into an array of hedge and espaliered forms" (Dolan 13). These orchards, which were sown for the purposes of pleasure and ornamentation, were reminiscent of English gardens of the 1700s and 1800s. However, this method of orcharding existed alongside of the development of a new method. Instead of planting in the English horticultural style, many settlers planted orchard farms, which were sown in stark contrast to the wealthy English settlers' highly organized orchards. Farmers would clear several

acres of land and sow a huge diversity of seeds to create an irregular orchard with anywhere between 250 and 300 fruit trees (Dolan 14). As a result of its disorganized nature, fruit trees on the orchard farm were observed to be blooming and fruiting at all times of the year, and cross-pollinating to create new hybrids. Orchards were also largely uncared for during the early decades of their cultivation. This changed as orcharding became a formalized trade in the 19th century.

Over the next several centuries, orchard cultivation spread south and west from New England following settlers' migration patterns. In their 1921 account of the evolution of the orchard trade, John Clifford Folger and Samuel Mable Thomson state that while orchards were sown in New England soon after their settlement, they did not become particularly prominent until the mid 1700s, when settlers began shipping their harvested fruit to England (22). Thus, some regions along the east coast such as New York and Virginia became more widely known for their production of fruit. Orchards became a more significant presence in the territories west of the Mississippi River in the 1800s due to the acquisition of more land (Dolan 44). As settlers moved west they established more orchard farms for subsistence. While these orchards were still relatively isolated, they had many similar characteristics to orchard farms on the east coast that contained numerous heirloom varieties.

The harvested fruit, especially the apples, formed an essential part of the settler's diets. Most of the apples harvested from settlers' orchards were not directly consumed. They were pressed for cider because the fruit in its raw form was not particularly edible (Dolan 15). Fermented apple cider was one of the most readily available beverages to early settlers. Families, even children, drank apple cider with each meal. Boria Sax's essay *Apples*, which describes the significance of apples in the history of American culture, explains that while cider was the most

common use for harvested apples, they were also popularized during the latter part of the 18th century for their consumption in the form of apple butter and applesauce (9). Settlers found a diverse number of ways to utilize the harvest, which became central to the subsistence of the early settlers.

Commercialization and Standardization

Domestication, or the process of human selection for particular fruit varieties, was the first step in the development of the orchard industry. Once orchards had been established in the regions, farmers began to select the varieties of fruit that were particularly tasty for propagation. This was enabled by the introduction and spread of the practice of grafting, which Leonard B. Hertz, a former extension horticulturist for the University of Minnesota, describes as the process through which farmers select the shoots of young fruit trees with leaf buds and insert them into the sliced stocks of host trees ("Grafting and Budding Fruit Trees"). Adopting the practice of grafting had several significant implications for the development of the orchard industry. Certain varieties were continually selected over others, reducing the genetic variety of fruit trees. Grafting gave the farmer more control over his orchard because he could choose which varieties to keep in perpetuity, which in effect, led the standardization of the orchard trade. Human selection, while gradual at first, led to increased control of the orchard industry in the latter part of the 19th century.

The end of the 19th century and the 20th century brought about the commercialization of the orchard industry. Industrialization produced a shift in orchard cultivation from casual subsistence in local communities, to intensive production and more widespread consumption -- "endeavors better suited to corporate-owned, factory-like 'agribusiness'" (Nordahl 3). Small

family orchard farms could not produce enough fruit to compete with commercial farms, nor could they afford the economic losses incurred by a bad season or small harvest. It was no longer a very economically sustainable trade for the original pioneers of the orcharding tradition. Industrial orchards incorporated new methods of cultivation, which included improved spraying, pruning and other cultivating techniques (Folger and Thomson 13). Fruit that had imperfections and pests, which made them commercially unviable because they did not meet industry standards, were a drain on resources. Industrial selection produced more reliable and dependable harvests, while simultaneously wiping out the capacity of small orchard farms to compete.

One of the most notable changes made in commercial orchards occurred in their pruning method. When fruit trees were first introduced to the U.S., the varieties they sowed had "very tall trunks, greater than six feet" (Dolan 30), which meant that the canopy of the tree extended even higher up. This made it difficult to harvest the fruit from the tallest branches, even when using a ladder. Thus, a large portion of the fruit was left unpicked and wasted. However, through the practice of pruning orchard trees for production, this changed. Commercial orchards employed the technique of pruning "for short trunks, or lowheading" (Dolan 89). The shorter trunks reduced the height of the tree, making it far easier to harvest all of the fruit. Controlling height through pruning was an important step in standardizing the orchard industry.

Standardization had several significant repercussions, one of the most significant of which was huge loss of fruit tree varieties. By 1800, 100 new varieties of apples had been produced in the U.S., including Jonathans, Winesaps, and Baldwins (Sax 5). New varieties of numerous fruits were continuously being produced up until the late 19th century. At this time, the U.S. Department of Agriculture's published a list of recommendations for orchard varieties, which was limited to "the heaviest and youngest-[fruit] bearing" (Dolan 73). These varieties

were also the most reliable throughout the production, storage and distribution processes. By the mid-20th century, even more standards, which can be interpreted as restrictions, were placed on the selection of varieties in commercial orchards. These related to factors such as "pest and disease tolerance or resistance, and commercial fitness of fruit (including the consistency of size, color, and taste of fruits), and tolerance to cold storage and shipping requirements" (Dolan 73). Many locally produced varieties were no longer cultivated because they did not uphold these commercial standards, with the result that their market value was greatly reduced. This also encouraged farmers to switch to mass cultivation of a select few commercial varieties in order to maintain profits.

Post-WWII gave rise to the modern era of commercial orchards, characterized by heightened increases in production. During this period, commercial orchards shifted to high-density orchards composed of semi-dwarf and dwarf fruit trees (Dolan 141). Instead of engaging in intensive pruning, farmers could simply graft semi-dwarf and dwarf rootstocks, which would grow to be the desirable height for commercial production. Since the trees were shorter, they did not produce as much fruit. However, the loss in vertical production was made up by the increase in horizontal production. Given that the dwarf trees were smaller than the standard fruit trees, a larger number could be planted or grafted in the same amount of space. Additionally, industrial orchards began greater application of highly sophisticated chemical sprays and fertilizers (Sax 18). Farmers had become extremely dependent upon synthetic materials as standardization and market competition eliminated their attunement to the natural cycles of production. These advances were all made in the name of industrial demands.

The Modern Orchard Industry

We have now entered an age during which the market drives even more intensive technological manipulation of the orchard industry. This has been manifest in the genetic engineering of fruit varieties in order to increase their resilience to pests and other extraneous factors (Sax 18). Agribusinesses support this measure because it reduces the concern for various pests and fungal diseases that render the fruit non-distributable. However, these technological advances also mean that the last remnants of orchards seeded with heirloom varieties have become even more valuable to preserve as evidence of pioneer culture and biodiversity.

"You can climb a tree and hang out in or under the tree, care for it, harvest from it, and have a relationship with the orchard. These orchards help put roots down in a community" – Janet Farsness, Holy Cross Church Orchard (Interview 9/20/11)

Chapter 2: The Apple Capital of the World

Apples have symbolic significance in the Pacific Northwest. Over the past century, eastern Washington has become intimately associated with apple production. As settlers migrated west in the late 1800s, they found that the Yakima and Wenatchee Valleys in particular had a "clear, sunny climate, hilly topography, and highly fertile soils for fruit production" (Dolan 60). Settlers migrated to the territory with knowledge of orchard cultivation on the east coast and the Midwest, which allowed the industry to develop more rapidly. At the turn of the 20th century, orchard cultivation developed a stronghold in this region as a result of the development of necessary irrigation technology (Folger and Thomson 68). Orchard cultivation led to the populating and development of the surrounding territory because extensive transportation systems had to be put in place in order to carry the fruit to the markets east of Washington. The early culture of eastern Washington grew around the success and popularity of the apple. This region is still acknowledged for the longevity of the apple cultivating tradition, and thus has become known as "The Apple Capital of the World."

The agricultural boom in the valleys to the east soon spread across the Cascades to the Puget Sound region, and orchards full of apples and other fruit trees thrived. While many of the orchards that formed a network across the Seattle landscape were overtaken as the urban footprint grew, the lasting legacy of this historical horticulture tradition lives on in the peripheries of the Seattle landscape. For many of the surrounding communities, these orchards

represent a connection to the horticultural patterns of the past, as well as a pathway to an urban agrarian future.

A Survey of Seattle Orchards

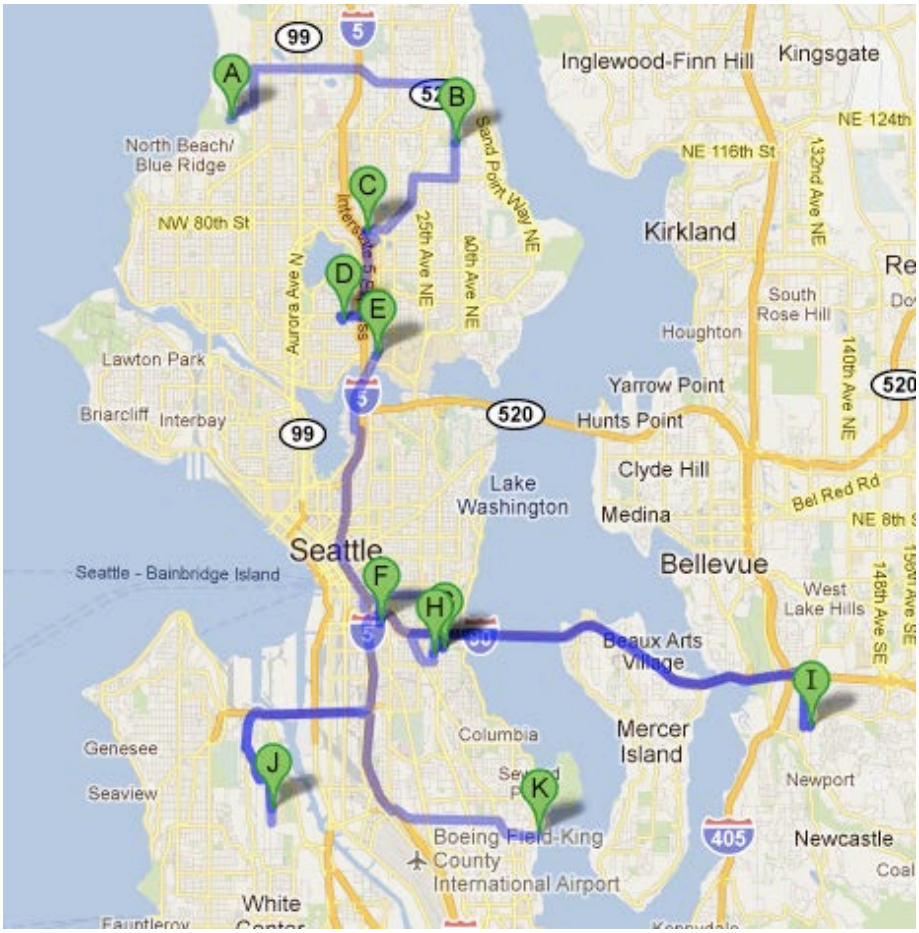


Image courtesy of http://maps.google.com/ – letters on the map are referred to in the descriptions of the orchards below

The origins of the surviving historic orchards are connected to the rich narratives of the early settlement and development of Seattle communities since the late 1800s. Many of these historic orchards contain a diversity of tall heirloom varieties, instead of the semi-dwarf or dwarf, specialized and standardized varieties. Some of the orchards that were planted recently

have heirloom varieties, but they are mostly semi-dwarf or dwarf species. The eleven orchards are only a few of the vast network of fruit trees that spreads across Seattle.

Carkeek Park – Piper's Orchard (Letter A: Northwest Seattle)

The historic orchard at Piper's Canyon; photographed by Audrey Lieberworth

Piper's Orchard at Carkeek Park is one of the oldest orchards with an abundance of fruit trees in Seattle. As the "Piper Oral History Meeting" of February 20, 1984 recounts, the first owner of this land was the Piper family, which included Bavarian-born Andrew W. Piper, his wife Wilhelmina (Minna) and their children. The family originally settled in what is present-day downtown Seattle, where Piper ran a *konditorei*, or a confectioner's shop that sold baked goods and candy. However, his shop was burned down in Seattle's Great Fire in 1889, and soon after, the family moved up north to an 80-acre plot of land by Piper's Canyon, located in what is now Carkeek Park ("Piper Oral History Meeting"). The family planted an orchard on the land with many pioneer varieties, such as the German Bietigheimer, and a large vegetable garden. The

"Piper Oral History Meeting" notes state that while Minna and her son Paul were the main caretakers of the garden, her husband often used the fruit harvested from the orchards to make pies. Minna and Paul took the fruits and vegetables from the orchard and their vegetable garden into town to sell. However, Piper died in 1904, and the City forced his family off the property a little while later to create Carkeek Park.

Carkeek Park was one of the first parks established in Seattle. Brandt Morgan, author of *Enjoying Seattle Parks*, a description and history of the parks that had been established by the time of publication in 1979, relates that Morgan J. Carkeek and his wife, Emily, settled in Seattle in 1875 (58). Carkeek was a stonemason from England and one of Seattle's best early artisan contractors. The park originally dedicated in Carkeek's name was located on Pontiac Bay on Lake Washington 1918; however in 1926, the land was turned over to the federal government in order to operate a Naval Air Station (Morgan 58). Consequently, Morgan states that Carkeek donated $25,000 in 1928 for a new park to be located at Piper's Canyon and the City put up $100,000, to create the park (58). Carkeek Park opened for operation one year after this plan was finalized.

Since its creation, Carkeek Park has been utilized for a variety of different purposes. Some of the more notable uses were a sawmill company that was operated on the parkland in the 1920s, which usurped all of the timber in the original forested land, and the Whiz Company, whose fish traps were used to collect salmon until 1932 (Morgan 58). The park was then used to create work for those who were hard-hit by the Depression to make camp buildings and forest trails (Morgan 58). Later, the park was used for a loop road, shelter, and picnic area in 1953, and a model airplane field in 1959 (Morgan 58). The park then slowly evolved into a place for

community gathering, in part because of the discovery of the orchard after many decades of abandonment in the 1980s.

In 1981, Daphne Lewis, a landscape architect, stumbled upon Piper's Orchard, covered by layers of blackberry bushes. Lewis discovered the orchard in the process of surveying Carkeek Park in order to create a master plan for park restoration ("Piper's Oral History Meeting"). Bob Baines, a Seattle DPR employee who was involved in the original restoration project, recalls that the restoration team consisted of volunteers, descendants of the Piper family and members of the newly formed Piper's Orchard chapter of the Western Cascade Tree Fruit Association. The Piper's Orchard chapter adopted and began to take care of the orchard. As part of this restoration effort, more pioneer varieties of apples were planted, which included Wagener, Red Astrachan, King, and Wolf River ("Piper's Oral History Meeting"). The first wave of orchard restoration brought together the knowledge, expertise and resources of different members of the community.

Interest in taking care of this orchard has wavered over the years. However, a new era of the Piper's Orchard restoration project began about five years ago, asserts Brian Gay, a naturalist for Seattle's DPR at Carkeek Park. At this time, DPR and orchard volunteers put together a sustainability plan complete with recommendations for future care of the orchard. Afterwards, there was renewed interest in the educational opportunities that the orchard offered.

Today the orchard includes 82 fruit trees, 30 of which were originally planted by the Piper family. There is an abundance of apple, cherry, chestnut, filbert, pear, walnut and hawthorn trees all planted on the park hillside. Don Ricks, president of Friends of Piper's Orchard, mentions that many of the fruit trees suffer from apple scab, a fungal disease, but they are putting up pheromone destructors and nylon socks in an attempt to counteract the incidence of pests.

While Seattle's DPR owns the land, the non-profit organization Friends of Piper's Orchard tends and maintains the orchard.

Burke-Gilman Trail (Letter E: Northwest Seattle)

An old apple tree located along the Trail and under the Interstate 5 overpass; photographed by Audrey Lieberworth

There are a lot of fruit trees scattered along the Burke-Gilman Trail that winds its way through Seattle. The fruit trees that are of particular note are the six located right by Gas Works Park. Not much is known about when these fruit trees were planted, but Barb Burrill, one of the community members involved in taking care of these trees, states that there are numerous fruit trees on the streets and in the backyards of residents in Wallingford, the surrounding neighborhood, that were planted long before the current residents bought the property. As such,

Burrill speculates that the history of these fruits trees is most likely connected to the development of the Burke-Gilman Trail and the surrounding neighborhood.

What is now known as the Burke-Gilman Trail was not initially created as a path for pedestrians and bicyclists. As related in the *Burke-Gilman Trail History*, in 1885, the early settlers Judge Thomas Burke, Daniel Gilman and ten other investors wanted to build a railroad that started in Seattle and connected to the Canadian Transcontinental line. They hoped that this railroad would help turn Seattle into an economic, trade and transportation center, and connect it to the broader network of trade. After the development of the railroad, it was used heavily to support logging between 1913-1963, but was finally abandoned in 1971 ("Burke-Gilman Trail History"). At this point, members of the community recognized the value of the path for recreational and non-motorized transportation. The City of Seattle, the University of Washington, and King County worked together in order to transform it into a recreational route, and it was dedicated on August 19th, 1978 ("Burke-Gilman Trail History"). The utilization of this path as a railroad track served as a catalyst for development of communities along the route and it is very likely that the communities that grew around this path planted the fruit trees.

The community members taking care of the fruit trees are not sure who owns which trees along the Burke-Gilman Trail because, as Burrill explains, the land along the path forms a patchwork of ownership between Seattle City Light, DPR and Seattle Department of Transportation (SDOT). However, with regard to the six apple trees in this specific section of the Trail, these different departments have granted permission to DPR and community members to take care of them. These apple trees have received a lot of pruning, predominantly at the oldest tree under Interstate 5. Community members have also been treating the apple trees for pest management because they have coddling moths and apple maggots. As a preventative measure,

they have placed nylon socks over the individual pieces of fruit to protect them from exposure to more pests. Orchard stewards will likely begin taking care of more fruit trees along the Trail in the next year.

Meridian Park/Good Shepherd Center (Letter D: Northwest Seattle)

Orchard at Meridian Park, with a playground in the background; photographed by Audrey Lieberworth

Meridian Park is located on the wide expanse of parkland in front of the Good Shepherd Center. Mark Wilson, the property manager for the Good Shepherd Center, states that the building, which was constructed in 1905, originally housed the Sisters of the Good Shepherd, a Roman Catholic order of nuns that were devoted to the care, rehabilitation and education of girls and young women in crisis. The Sisters of the Good Shepherd believed that by providing the benefits of a stable and loving home, the girls could become responsible, moral and caring women (Historic Seattle). The nuns planted and maintained an orchard at the site in order to

teach the girls home economics, how to cook and grow food (Wilson). This site operated until 1973 when, as a result of receiving fewer donations, the Center closed. Ashley Fent's survey of the fruit trees in Seattle Parks documents that after its closure, community members took action to preserve the site as a historic landmark and the parkland was acquired by DPR in 1976 (17). Over sixty apple, pear and plum trees remain at both Meridian Park and the Good Shepherd Center, which is now used to house various local business practices. The DPR and Historic Seattle take care of these fruit trees.

Amy Yee Tennis Center (Letter H: Southeast Seattle)

Apple trees near the parking lot at Amy Yee Tennis Center; photographed by Audrey Lieberworth

The history of this orchard is largely unknown, but as Becca Fong, the environmental stewardship coordinator for Seattle's DPR suggests, a previous owner of the property most likely planted it. There are about two-dozen apples trees close to the entrance to the tennis center, but no significant interest exists in their cultivation. Since the property is owned by DPR, they have primary responsibility for fruit tree maintenance.

Martha Washington Park (Letter K: Southeast Seattle)

Apple and cherry trees at Martha Washington Park; photographed by Audrey Lieberworth

Like many of the other orchards in Seattle, the orchard at Martha Washington Park has a rich history. The pioneer E.A. Clark, Seattle's third schoolteacher was the first settler to own the land, but he soon sold it to settler David Graham in 1855, who then sold it to his brother Walter

Graham ten years later (Morgan 209). Graham was a horticulturist and planted the orchard found here (Morgan 209). The location of Graham's land was close to the cable and trolley cars that traveled to the city center, which enabled easy transport of their harvested produce into town to sell (Morgan 209). Graham ended up selling his land to Asa Mercer, who is known for sending two groups of maidens north to Seattle to help meet the demand for single settlers had for wives. Graham met Mercer because he married one of Mercer's young women (Morgan 209). However, Mercer ended up selling the piece of property to John Wilson soon after as payment for a loan because he went bankrupt after sending his second shipment of brides (Morgan 209). In 1889, Wilson sold the piece of land to Everett Smith, an attorney who was the clerk for Judge Thomas Burke. Smith later sold the property to the Seattle School District in 1920, which turned the property into the Martha Washington School for Girls in order to provide resident supervision for delinquent girls (Morgan 209). In 1957, the state of Washington took over care of the site, and in 1972 the City of Seattle acquired the land.

Today there are nine cherry and apple trees left on the property, cared for by Seattle's DPR and community members. Jim Kramer, one of the community orchard stewards says that many of the trees do not have harvestable fruit because they have apple maggot flies, which they are trying to counteract by putting nylon socks on the individual pieces of fruit. Kramer states that since these trees are very old, the fruit is 30 feet up in the air and not very accessible. One of the main tasks to accomplish in the next three or four years is to do major pruning in order to encourage fruit production lower on the tree. Kramer hopes that they will also be able to plant more fruit trees at the site in the future.

Dr. Jose Rizal Park (Letter F: Southeast Seattle)

One of three different plots of orchards at Dr. Jose Rizal Park, overlooking Interstate 5 and downtown Seattle; photographed by Audrey Lieberworth

Dr. Jose Rizal Park, located on Beacon Hill, was created as a byproduct of the early settlers' efforts to transform Seattle into a city. Settlers recognized the importance of the land just west of Beacon Hill as a shipping and industrial center because it was located right at the point where the mouth of the Duwamish River meets Elliot Bay (Morgan 206). However, the transportation of people and goods inland and south was difficult because a glacier that passed through Seattle 15,000 years ago carved out a steep saddle between what is now First Hill and Beacon Hill (Morgan 206). In the late 1890s and early 1900s, settlers began to level out the saddle, which made transportation far easier and also allowed a flourishing industrial center to appear west of Beacon Hill (Morgan 206). In the 1960s, land was designated for a park meadow on the side of Beacon Hill as part of construction for the freeway that passes right through the area (Morgan 207). In 1971, Seattle's DPR acquired the meadow to create for a park.

In 1974, this park was dedicated to the memory of the Filipino patriot Dr. Jose Rizal. The park is located in an area that drew a significant Filipino immigrant population starting in 1900,

after the Spanish-American War made the Philippines an American Protectorate (Morgan 207). Dr. Jose Rizal was a Filipino patriot known for making "lasting contributions to medicine, psychology, literature, anthropology, art, drama, philosophy, botany, zoology, engineering, agriculture, and – above all – political and social reform" (Morgan 207). This dedication reaffirmed the significance of the Filipino population in the Seattle community. Today, the park is still a popular gathering place for the Filipino community and they have also been a major source of support for the orchard rejuvenation project.

It is unclear when this orchard was planted. However, Craig Thompson, a community member involved in the restoration of the orchard, believes that it dates back to the 1950s. Thompson states that there are three orchards at the park that are taken care of by community members and DPR. The largest, to the east, just downhill from the park's scenic overlook, has twenty crab and true apple trees. One of the crab apples produces fruit, and orchard stewards and volunteers successfully grafted scions of the Victory variety of apple onto other crab stock. This orchard – the main orchard – is sided by a restored natural forest area to the south, a stand of Leyland cypresses to the west, and to the north a stand of European white birches. A second, smaller orchard is located further downhill and across a service road, and has five Winesaps, a fruiting crab apple, and another true apple variety. Further north, a third stand of three true apples sits inside the park, beside the Mountains to Sound Greenway Trail, a pedestrian and non-motorized transport path. Just south of the park are legacy nut and fruit trees planted by early Seattle settler, Katie Black. The nearby Katie Black Garden, which was laid out in 1914, commemorates her.

Holy Cross Church (Letter I: Bellevue – on the other side of Lake Washington, east of Seattle)

Apple tree at Holy Cross Church orchard; photo courtesy of Janet Farsness

A farm and orchard were planted on the land when the church bought the piece of property 50 years ago. As Janet Farsness, a member of the congregation tells it, at one point, the orchard was overrun with blackberry bushes, resulting in the beginning of an orchard rejuvenation project about fifteen or twenty years ago. The maintenance of the space by congregation members ebbed and flowed over the years. Then, about two years ago, the congregation assessed the various church assets, and decided to reinvest in the land covered by the orchard. They recognized that the orchard had great potential for food production, which could be a real asset to the community, through reduction of grocery bills. Since then, the

congregation has been restoring this orchard, and also installed p-patches in order to harvest produce, which is shared amongst community members and donated to local food banks.

The orchard is largely filled with numerous heirloom apple tree varieties such as the Yellow Transparent, Baldwin, Winesap, Ben Davis, Esopus Spitzenberg, and Winter Banana. They also have a Bartlett Pear, five Smyrna Quince, and plum trees. In order to identify the rest of the varieties, the congregation has been working with the Seattle Tree Fruit Society, a chapter of the Western Cascade Tree Fruit Society, which brings together professionals and amateurs to share resources and information about growing fruit trees. Even though this orchard is not located in Seattle proper, it is still significant to this study because the congregation has collaborated with and received support and resources from several nearby Seattle-based harvesting organizations.

The New Orchards

Although the following orchards have been planted relatively recently, they are just as significant and important to the Seattle landscape as the historic orchards because they combine the historic tradition of orcharding with modern interest in sustainability. Many of the orchards were planted using methods that follow permaculture principles. Permaculture, a term first used by Bill Mollison, considered to be the 'father of permaculture' is "a contraction of both 'permanent culture' and 'permanent agriculture'" (Hemenway 4). Toby Hemenway asserts that the success of permaculture is due to a holistic approach that integrates the unique and diverse functions of the human and natural living systems in order to produce "ecologically sound, economically prosperous" and sustainable living systems (Hemenway 4). These orchards were

planted in such a manner because communities recognized that this local food source could contribute to their economic, social and environmental sustainability.

Freeway Estates Community Orchard (Letter C: Northwest Seattle)

Young fruit trees in the center, with a trellis to the left and the Interstate 5 corridor to the right; photographed by Audrey Lieberworth

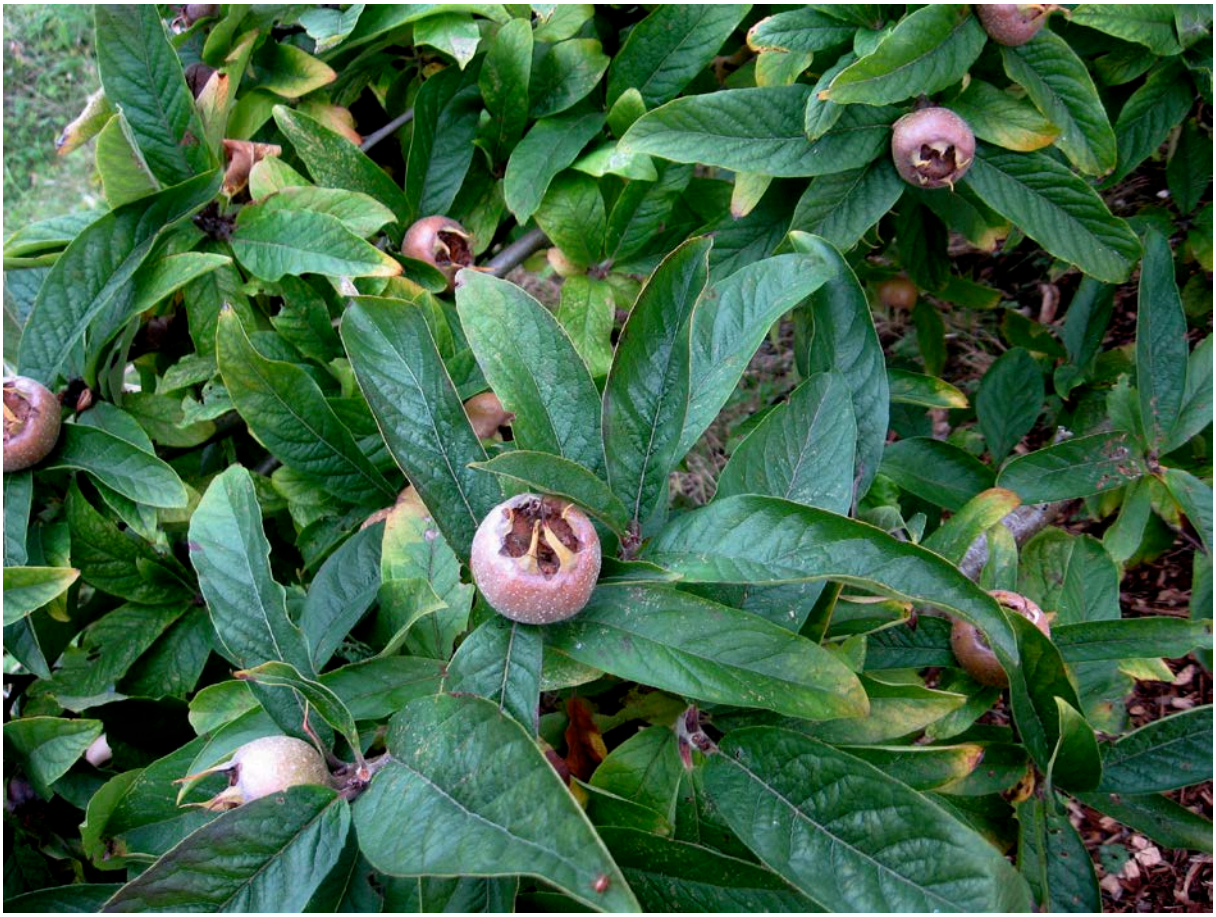
Ruth Callard, one of the community members and coordinators for the orchard project, states that this orchard project began in June 2010. Each year, the community hosts a raspberry social and last year during the event, they proposed starting an orchard program. The community members seemed to like the idea, and after some planning, the project came to fruition in June 2010. They planted some chestnut trees in November 2010 and some apple, pear and kiwi trees

in February 2011. Although the orchard may not bear fruit for a while because the trees are still young, Callard thinks the orchard is doing well, with the exception of some pear blister mites. The orchard is planted on the north half of the allocated land, and they left the south half open in the hopes that they will be able to plant a p-patch in the space in the future.

This orchard is located on the strip of land that abuts the bearing wall of the Interstate 5 corridor. While both SDOT and Washington State Department of Transportation (WSDOT) own the property, the Departments granted permission to members to the surrounding community to plant a small orchard. However, both SDOT and WSDOT have numerous and different restrictive regulations on the land that hinder the development of a long-term plan for the space.

Consequently, Callard says that using this space entails some difficult planning. Right now, the community is only allowed to plant the orchard and make a trellis. They cannot build or plant any structures with a foundation, they cannot change the contour of the land, and they do not have access to a water source. They have been told that they will only receive access to a water source if the City recognizes their community project, and as of yet, it has not been so approved. For now, the neighbor that lives closest to the orchard lets them fill up jugs from his water hose to water the trees, but this is not a long-term sustainable solution. Callard states that another problem is that SDOT only permits the use of organic methods on plants on their property, so they are trying to get rid of the grass in the area slowly over time with sheet mulching.

Meadowbrook Park (Letter B: Northeast Seattle)



Persimmon plant in the edible hedge; photographed by Maia Eisen

Prior to Meadowbrook's conversion to a park, it served multiple purposes. Ashley Fent documents that the land was cleared by loggers, turned into August Fisher's dairy farm in the early 1900s, and was consequently made into a golf course in 1928 (16). In 1954, the land was acquired by the City of Seattle, at which point members of the community asked for a playfield to be built on the land, and finally in 1960, the golf course was turned into what is now Meadowbrook Park (Fent 16-17). The produce planted at the site was not planted until relatively recently. Sometime in the 1990s, Kevin Burkhart planted an edible hedge and orchard on the park hillside without DPR permission (Callard). He planted apple, cherry, plum and pear trees, in addition to apricots, crabapples, peaches, persimmons, quince and serviceberry (Fent 16-17).

After a few years of neglect, the orchard and edible hedge became overgrown, but in an effort led by Sustainable Northeast Seattle and other community members, the orchard and edible hedge are in the process of rejuvenation.

Community Orchard of West Seattle (Letter J: Southwest Seattle)

High-intensity trellising method for fruit trees at the Community Orchard of West Seattle; photographed by Audrey Lieberworth

The Community Orchard of West Seattle project began about one and half to two years ago. As Laura Sweany, the current orchard manager recounts, it was the brain-child of Aviva Furman, the lead at the Community Harvest of West Seattle, a green organization Furman started back in 2003. Furman had heard about a program in Boston called EarthWork that incorporated

outdoor classrooms, native plant restoration, and the cultivation of community orchards and gardens into their organization's curriculum. This organization inspired her and so she trained her garden mentors from the Community Harvest of West Seattle to go to schools and properties to teach people how to garden. Furman soon thought a community orchard would be a logical outgrowth of her community's mandate, which led her to begin to work with a couple of people from the neighborhood, including people from Sustainable West Seattle. Together, they wrote and received a grant for $43,000 from the Department of Neighborhoods to start a community orchard project.

Sweany recalls that Furman had also been working with Mark Ryan at South Seattle Community College in order to develop and plant a permaculture style demonstration garden at the college. Furman and Ryan had previously worked together to host several permaculture workshops and they thought this grant would provide them with an ideal opportunity to create some sort of perennial style food production garden. After a lot of back and forth with South Seattle Community College, Furman's project received a ten-year lease for 6,100 square feet of land on a narrow strip of lawn, back behind a chain-link fence. Soon after, they hired an orchard manager to manage and design the garden using permaculture principles. They planted the orchard in January 2011, and have since planted a variety of perennials and other plants.

What is most interesting about this project is that they took a piece of land with soil that had a heavy clay content and turned it into a highly productive plot of land in a very short amount of time – all due to their use of permaculture methods. Even though this is a very young project, they were already able to harvest some produce by spring 2011.

Bradner Gardens Park (Letter G: Southeast Seattle)

Fruit tree at Bradner Gardens Park; photographed by Audrey Lieberworth

In 1971, the 1.6 acres of land that is now Bradner Gardens Park were purchased to create a park, although it was not initially used for this purpose. According to *Bradner Gardens Park: Park History*, it was first leased to the Seattle School District and used for the John Muir School Annex until 1975, at which point the group of buildings were turned over to serve the Central Youth and Family Service until 1993. In 1987, the Seattle P-Patch Program established a p-patch at the site ("Bradner Gardens Park: Park History"). The surrounding community was composed of a significant number of Mien immigrants from Laos, and the incorporation of the p-patch created a neighborhood gathering space for them ("Bradner Gardens Park: Park History"). Over the next few years, the p-patch fostered the development of a strong community network. This

was extremely beneficial because 1994 marked the beginning of the City's challenges to the community's claim to the land.

It all started with the completion of the Interstate 90 Bridge in 1994, at which point the City began to make plans to build housing on the parcel of land. Given that the location of the p-patch was so close to the bridge, it would be easy for residents to commute and connect with the communities on the opposite side of the lake ("Bradner Gardens Park: Park History"). When the South Atlantic Community Association got wind of this idea, they immediately banded together in resistance. In 1995, the community applied for and received a Small and Simple Grant of $4,500 and they used the money to hire an architect to design a plan for the parkland – complete with gardens, a pavilion, and play areas ("Bradner Gardens Park: Park History"). This helped prepare them to counter the City's development proposal. Following a two-year battle, the community managed to save the park from development by drafting Initiative #42 Protect Our Parks. This states that City-owned parkland cannot be "sold, traded or used for non-park use unless it was replaced with like kind in the same neighborhood" ("Bradner Gardens Park: Park History"). This work strengthened the ties amongst the diverse community surrounding the p-patch and demonstrated to other communities the power of united resistance.

After the housing plan was rebuffed, the community was able to execute the plan they had already created for the park. Friends of Bradner Gardens Park applied for more grants in order to fund the construction of the park. Construction began soon after in 1998 and was completed in 2003 ("Bradner Gardens Park: Park History"). The final product was put together through the design and work of individuals from the Mt. Baker neighborhood, the Washington Native Plant Society, Friends of Bradner Gardens Park, the P-Patch Program, and Seattle Tilth – a gardening and urban ecology organization. It was truly a community effort.

There is no orchard presently at Bradner Gardens Park, but there are a number of fruit trees located on the peripheries of the garden, as well as in some of the demonstration gardens. There are 61 p-patch community garden plots that are each ten-by-twenty-feet long (Hou, Johnson and Lawson 118). The p-patches are in the center of the garden and different themed demonstration gardens put together by Seattle Tilth surround it – there is a dry garden, a winter garden, and a children's A-Z garden, among others. While this is Seattle DPR-owned land, the community members are individually responsible for the care of their own p-patches, and many of them contribute to taking caring of the trees as well.

Memorializing a Historic Legacy

The historic orchards commemorate the narratives of the early settlers and the development of the surrounding land, while the new orchards are connecting the historic tradition of orcharding to modern social demands. Thus, communities are becoming more interested in what these historic and new orchards have to offer. In doing so, they are reverting back to their agrarian roots in order to revalue and renew a lost cultural tradition.

"At this point the orchard is not economically efficient, but if you look at it in terms of the process – the growth of community, enjoyment, and redistribution of wealth, then it is incredibly inspiring" – Don Ricks, president of Friends of Piper's Orchard (Interview 9/13/11)

Chapter 3: The Communal Benefits of Urban Orchards

It was not until recently that communities became interested in these orchards as a local food source because there was neither a collective community interest, nor a network of support for their cultivation. Since these orchards are all located on publicly owned land and have always been maintained by different City departments, communities never really seemed to assume a clear stewardship role. Additionally, the City has not historically been very keen on promoting their cultivation, as evidenced by what David Randal Gould calls Seattle DPR's policy of "'benign neglect'… meaning that they are not maintained or pruned with any notion of fruit production in mind" (2). However, with the growth in the local urban agriculture movement, and the City's explicit commitment to fostering this development, municipal departments could recognize the potential for orchards to make contributions to this movement as a food source.

As these orchard projects have garnered more support and attention, they have had a transformative affect on communities. The fruit trees are bringing communities together to educate and build sustainable relationships between residents, as well as to reclaim landscapes, and to prune, pick and share the fruit of the harvest.

Educational initiatives

One thing that communities, community organizations and City departments can agree upon is that the orchards can and should be used as an educational resource. There are a lot of tangible skills that can be developed through cultivating a piece of land including how to grow,

harvest and cook. Communities also gain intangible benefits such as self-sufficiency, a connection to the earth, pride, satisfaction and a feeling of being a part of something important. The purpose of these educational initiatives is to empower community members by providing them with the resources to cultivate their own land, as well as communal, publicly owned land. This also serves to encourage community members to utilize the tools they gain in these educational atmospheres in their participation in orchard rejuvenation projects. While many of the communities have educational initiatives, the following are a couple of specific examples.

City Fruit

City Fruit is a Seattle-based organization that helps communities learn how to take care of and harvest the fruit from their trees, and donate the excess produce to food banks. City Fruit operates under the assumption that the key to reducing the amount of city-grown fruit gone to waste on public and privately owned land is to give communities the tools with which to cultivate the fruit on their own ("City Fruit: About Us"). City Fruit has carried out their goals in a number of successful ways since their founding in 2008. They hold weekly workshops open to the public for a relatively minimal fee. The theme for this fall's workshops was focused on traditional and unique ways to cook fruit (Rooney). In the past, they have held workshops that have taught people how to use the fruit harvest to make jam, how to can fruit, and how to prune their fruit trees (Rooney). These workshops target skill development, but they also give individuals confidence and agency by harnessing them with the tools to complete these tasks on their own.

Significantly, City Fruit has taken the lead on coordinating many orchard rejuvenation projects in the Seattle-area. They provide resources and support to individual orchards, and they

have also executed the Seattle Parks Fruit Tree Stewardship project, which will be discussed in more detail below. One of the objectives of their workshops and this project is to increase the visibility of the orchards by educating communities about how to be more effective stewards of the land.

Carkeek Park

The orchard at Carkeek Park is very close to the neighborhood Viewlands Elementary School. The elementary school closed in 2007, but reopened in the fall of 2011 due to higher enrollment rates. Brian Gay, a Seattle DPR naturalist says that since the school just reopened, teachers are focused on creating a new curriculum with a new focus on environmental education. Given that the orchard is located so close to the school, Gay believes that it would make sense for them to incorporate utilization of the orchard as an educational piece for students. However, the teachers' prime interest in environmental education is the topic of salmon, a major regional concern. Nevertheless, Gay made a presentation to the whole faculty before school started in the fall, arguing that the orchard is a good opportunity to educate students about life cycles, the study of the trees themselves, the different types of trees, and their history. While developing a curriculum is inevitably the role of the teacher, not a DPR employee, he hopes that teachers will use him as a consultant, in addition to asking for resources from experts from the Piper's Orchard project.

Community Orchard of West Seattle

Some communities are designing educational components for their orchard projects by integrating the resources of the natural landscape surrounding the orchard. The Community

Orchard of West Seattle's grant funding was contingent upon their dedication to providing free educational opportunities for the public focused on how to grow food for their communities (Sweany). Since February 2011, they have held one free workshop on the third Saturday of each month, which is followed by a one-hour potluck and a two-hour work party in the orchard. Many of the ideas and themes for these classes have been inspired by the work accomplished in the orchard. Participants greatly benefit from this because much of the information they glean inside of the classroom can be observed firsthand in the orchard outside of the classroom. Furthermore, since the orchard is about the same size and configuration as the average city backyard, the skills demonstrated during these classes and the permaculture methods displayed in the orchard are meant to give participants ideas for their own gardens. Sweany says that their previous workshops have focused on creative ways to preserve the harvest, how to naturally increase and maintain soil fertility, how to make trellises, poles, arbors and props, and how to identify the tracks of different animals that traverse the landscape surrounding the orchards.

Given that this orchard was planted using new and unfamiliar permaculture methods, there are numerous informational signs posted along the sides of the garden beds. One such sign describes the benefits of locally applied high-intensity trellised orcharding methods. The fruit trees were planted next to a trellis, and "the branches are bent down and tied to the trellis to create a hormonal response in the tree that encourages fruiting buds to form the 2nd year" (Community Orchard of West Seattle). This method not only encourages earlier production, but it also enables the trees to be planted more closely together. This is beneficial because it maximizes the amount of space on the land left for other purposes. Another sign explains the orchard's polyculture and guild planting. Polycultures, also known as companion planting, create mutually beneficial crop relationships (Community Orchard of West Seattle). Planting many

different types of plants in the same bed creates a so-called guild. While these signs are extremely detailed, even the casual passerby who glances briefly at one of the signs can learn a little something.

Bradner Gardens Park

Bradner Gardens Park is being utilized optimally as an educational piece for the community. There is a huge diversity of resources that flow through this space because of the numerous partners that are involved in the production and cultivation of this park, including the residents who own p-patches at the site, the Seattle Tilth demonstration gardens and the work of the Master Gardeners. In their book *Greening Cities, Growing Communities*, which surveys several urban agriculture efforts in Seattle, Jeffrey Hou, Julie Johnson and Laura Lawson explain that Seattle Tilth holds demonstrations that are meant to teach community members how to create drip irrigation systems, cover cropping, mulching, and composting (118). The Master Gardeners have free gardening workshops focused on many of the same topics and more, including soil building, seasonal gardening and harvesting, and food preservation (Hou, Johnson and Lawson 118). Additionally, the community members who are involved in taking care of their own plants each bring and share their own knowledge of gardening to the space.

Seattle Parks Fruit Tree Stewardship Program

One of the most significant educational outreach programs is the Seattle Parks Fruit Tree Stewardship program. This program is the product of collaboration amongst the DPR, City Fruit and local community members. The project is funded by a grant from the Department of Natural Resources in cooperation with the U.S. Forest Service. There are three main goals of this project:

> 1. Create and pilot test a curriculum and training program on fruit tree care for lay gardeners. 2. Develop a sustainable, volunteer-based model for the care of fruit trees on public properties. 3. Recruit and train 12-15 volunteers interested in fruit tree management, using them to evaluate the training curriculum and the stewardship model. ("City Fruit Projects: Seattle Parks Fruit Tree Stewardship")

The goals outlined in this project give community members the ability to mold and adapt their plans for the orchard to the interests of the community. They hope that this will be a sustainable project by educating and providing community members with the tools with which to generate more interest in the orchards on an on-going basis.

During the first year, five orchards were selected to carry out the goals outlined in the pilot program. The five orchards that were chosen are Martha Washington Park, Dr. Jose Rizal Park, Bradner Gardens Park, the Burke Gilman Trail and Meadowbrook Park. As Becca Fong, DPR environmental stewardship coordinator says, they chose these five specific orchards for a number of reasons. First of all, they wanted to select orchards from different parts of the city to make this project more accessible and visible to the public. They tried to choose orchards where the trees were not too tall so that the orchard stewards could easily harvest from them. They also selected orchards that were in frequently traversed areas. Finally, they made sure that there were at least three stewards living in each of the surrounding communities that could make a year and a half long commitment to work with the program. This was primarily because DPR and City Fruit have neither the time nor the capacity to do all of the extensive work on their own.

The project, which began in 2010, is now heading towards the end of its first year, and in the fall of 2011 they started looking for new orchards to incorporate into their next year of the pilot project. They were considering several different orchards and p-patches around Seattle, but

some locations, such as the Amy Yee Tennis Center, will likely not be incorporated because there is not sufficient community interest and support there.

Thus far, there have been a number of positive aspects of this project. Fong explains that DPR has been very receptive to this program because it helps them accomplish many of their departmental goals, one of which is to help create an urban, local food program. Additionally, many of the orchards were also in great need of restoration because DPR had not been properly taking care of the orchards over the years. The orchards themselves have benefited due to the increased care they have received. Instead of allowing the fruit to go to waste during harvesting season, communities are in charge of planning what to do with the harvest, and many donate a lot of produce to local food banks. Most of all, though, this project is promoting the educational and social value of the orchards to the surrounding communities.

Community Collaboration

Another benefit of the orchards' educational initiatives is that they are bringing communities in contact with organizations to learn and broaden the scope of their curriculum. There are numerous examples of this type of collaboration, such as the workshops at the Community Orchard of West Seattle, which are sometimes led by individuals who work for different organizations. A recent workshop on how to develop water catchment devices for homes was led by Nikola Davidson of EarthSystemsNW, a local company specializing in cistern installation for residential homeowners (Community Orchard of West Seattle). At the Holy Cross Church Orchard, Janet Farsness says that they have worked with Seattle Tree Fruit Society, City Fruit, different p-patches and the City of Bellevue. Don Ricks, the president of Friend's of Piper's Orchard, along with a number of Seattle Tree Fruit Society members, and City Fruit, led

classes to teach members of the congregation how to prune the trees, put nylon socks on the individual pieces of fruit to protect them from pests, and how to provide for their general care. Communities are also working with City Fruit and Lettuce Link, one of the programs operated by Solid Ground, an anti-poverty organization, in order to harvest the fruit from their orchards and donate it to food banks.

These collaborations are forming a new network of support that pairs the expertise and knowledge of organizations such as Seattle Tree Fruit Society and City Fruit, with the energy of individual community orchard projects. This network is also expanding to incorporate a larger number of social issues that concern these communities, such as poverty, hunger, of religion and more. This helps build alliances and support for aspects about which they have less knowledge. Communities are learning how to develop sustainable relationships with these different organizations because they share many of the same resources and goals. They are awakening to the fact that social issues are best tackled by having a broad network of support with a variety of resources.

Community Outreach

Each community has a different formula for the way in which they try to engage other residents in their orchard projects. This is because these orchards are located in a variety of different communities with varying degrees of interest, and different ideas of how they can benefit from their participation in the orchard projects. However, there have been a couple of outreach methods that have been successful for all of the orchards, which include cider pressing and work parties. Community outreach is extremely important because drawing more attention to

and increasing the number of participants in their projects helps build a stronger community network of support.

Cider Pressing

A young boy making apple cider at the Jubilee Country Fair at Holy Cross Church Orchard; photo courtesy of Janet Farsness

Communities are trying to encourage more residents to participate in these orchard rejuvenation projects by engaging them in cider pressing, a historic tradition. As discussed earlier, cider pressing was of particular historical significance in colonial America because settlers drank fermented cider with every meal (Dolan 17). Since many of the orchards contain pioneer apple varieties that are not very tasty to eat directly, they hold cider pressing events for everyone in the community to gather, press and drink cider together. The orchard stewards at Martha Washington held their first cider pressing event this fall in the hopes that it would draw

in more community participants (Kramer). The Freeway Estates Community Orchard hoped to do the same thing at their first annual community fair and cider press event that took place this fall. Increasing participation in these orchard projects is key to their sustainability.

Cider pressing events have proven to be good a method to increase the visibility of the fruit trees to the public. The number of community members that remain unaware of the existence of fruit trees is surprising, even when they pass by every day. At a recent cider pressing event held under the oldest apple tree along the Burke-Gilman Trail, orchard stewards passed out free cider to bicyclists and pedestrians as they passed. Barb Burrill recalls that many of the people that stopped to drink some apple cider remarked that they did not realize there were fruit trees along the path. Burrill elaborates, explaining that "people just assume the trees are ornamental and pretty to look at when they're blooming. However, when residents become aware that these trees are not simply ornamental, but historic fruit trees, it adds to their trail experience." Thus, these events are helping enrich residents' daily experiences and interactions with the Seattle landscape.

Work Parties

Many of the orchards also have work parties where community members have the opportunity to assist with the pruning and general maintenance of fruit trees. While there are always regulars that attend these work parties, they continue to draw in new people from time to time. The parties provide a space to find, renew and sustain relationships amongst community members as they become connected to each other through a shared gardening experience. Work parties also enable people to share skills with each other. Since many of the communities hold

monthly or bimonthly work parties, it provides an opportunity to bring communities together when they might not otherwise interact.

Infusing space with memories

Orchards appear to engage and have special appeal to members of the community who view orchard cultivation as a way to reconnect to their past. As voiced by both Jim Kramer and Don Ricks, who are participating in orchard restoration projects, they are drawn to these orchards out of a nostalgic interest. Kramer remembers that as a child he used to climb his relatives' fruit trees and make apple cider with his family. Ricks says he "finds comfort in seeing an orchard that's twice my age still producing. It reassures me that there is a continuity and sustainability to life." Ricks also finds working in the orchards psychologically bonding, seeing that these old fruit trees have not been forgotten, and are in fact revered.

For this reason, parents are trying to involve their children in these orchard projects as well. Children are often given the chance to press cider themselves at these events, something their parents might have done when they were young. Cider pressing appeals to everyone; for a child it might be the thrill of crushing an apple on their own; while for the parent it might be the memories it conjures, thus helping bridge a generational gap. Appealing to the nostalgic connection that people have with the land and the fruit trees has proven to be a very effective way to engage community members.

Revaluing Urban Space

Communities are also using the orchard rejuvenation projects to beautify and rehabilitate the social landscape of the city. They are also reclaiming land in order to preserve its historical

integrity and increase their visibility in the landscape. However, some orchard projects have additional objectives that include reclamation of space from past associations with drugs and crime. Jane Jacobs articulates in *The Death and Life Of Great American Cities* how the slums of the North End of Boston were rehabilitated, not by funneling money into new housing developments and other structures, but by rediscovering the geographical and urban heritage of the landscape (11). One of the goals of these orchard projects is similar: to modify the landscape, and reconnect communities to the heritage of the land in order to change its function and significance to the surrounding communities.

Reconstituting Space

Both the Freeway Estates Community Orchard and the Community Orchard of West Seattle are located on land that had been in disuse for a long time and as a result, the spaces had become relatively run down. These two spaces are representative of "wedge" space, as Erick Villagomez calls it in his essay *Claiming Residual Spaces in the Heterogeneous City* (89). Villagomez asserts that these spaces "often occur as a result of the intersection of these different urban phenomena (e.g., conflicting grid systems) and/or infrastructural elements (e.g., railroad tracks) that leave irregularly shaped urban conditions" (89). These communities are attempting to reconstitute the meaning these physical locations conjure by transforming them from a state of disuse to community orchards, a socially valuable function for the land.

The Freeway Estates Community Orchard is located on a piece of land between the Interstate 5 corridor and a residential area. It is also relatively close to a park & ride, located underneath the Interstate 5 overpass, where Callard says a lot of drug deals take place. Callard hopes that this orchard will "turn the piece of land into a peaceful, beautiful place for people to

pass through on their way to the bus." They are also hoping that the presence of the orchard will increase foot traffic through the area, and reduce the incidence of crime and drug activity. Since the project is still quite young, it could take several years for it to have a transformative affect. Nevertheless, this wedge space has the potential to enrich the surrounding neighborhood.

The Community Orchard of West Seattle has taken over a plot of land that was previously fenced off on the South Seattle Community College campus. As Sweany states, before the land was designated for the orchard, it was not used. It was just a lawn behind a chain link fence on the periphery of the campus. Sweany suspects that the land was most likely in a state of disuse because South Seattle Community College was using it as a buffer to discourage erosion.

They had originally been interested in planting an orchard on several other pieces of land in various areas of the campus, but found that they were too shady, some too remote, and some too visible. Finally, the college offered them the spot behind the chain link fence. Sweany says that they were so desperate to start the project and use the grant funding that they had to accept it, but the land has since proven to be perfect for their community orchard. In this case, this wedge space has been transformed into a very productive and community-oriented piece of land.

Reclaiming Space

Similar to the Freeway Estates Community Orchard, some of the other orchard rejuvenation projects have been executed in order to reduce the amount of crime and drug activity at the parks. As Bob Baines, a Seattle DPR employee recounts, the steep hillside of Dr. Jose Rizal Park used to be notorious for its drug activity. There were decades of homeless encampment, drug dealing, crime, and murders that occurred next to the park. In recent years this

has changed, in part because the Mountains to Sound Trail, a path for bicyclists and pedestrians, was completed in October 2011, bringing continuous non-motorized traffic through the area ("News Release: Beacon Hill Extension of Mountains to Sound Trail Celebrated"). Additionally, the Seattle Parks Fruit Tree Stewardship program has generated a lot of community support for the orchard. These two measures are reclaiming the landscape by bringing more people through the park and making it a more visible space.

Jim Kramer, a member of the community, explains that when Martha Washington Park was incorporated into the Seattle Parks system in the 70s, it was not well-kept. The outer fringes of the park were completely overgrown and dense blackberries engulfed the trees. This environment shielded unwelcome social activities from public attention. Kramer recalls that a family moved into neighborhood in the early 90s and organized Friends of Martha Washington Park. They obtained grants for the restoration of the park that were largely focused on the community's concerns, which were the reduction of park-focused crime, drug activity and prostitution. Community members hosted volunteer events in order to clean up the park. They also pruned the fruit trees in the orchard, and the trees along the perimeter in order to increase interior visibility. As a result, the number of incidents of drug use and crimes decreased, reclaiming the space for more family-friendly activity.

Building Communities

As it has been demonstrated, these orchards provide numerous benefits to the surrounding communities through their educational initiatives and community outreach events. These activities help draw attention to and encourage communities to contribute to cultivating orchards as a local food system. In the process, they are also increasing public visibility and

value of park landscapes. Ultimately, these projects are building stronger communities, which is very important in order to sustain the local urban agriculture movement.

"People forget about fruit – fruit is the forgotten stepchild of the urban agriculture movement because we don't get immediate returns on investment. You can plant a seed in the ground, but it often takes a couple of seasons to get the harvest you're looking for. However, once they're there, they will continue to feed you, year after year" – James Rooney, President of City Fruit (Interview 6/15/11)

Chapter 4: The Changing Landscape

With the rise of the urban agriculture movement in Seattle, residents and City officials are observing that cultivation of local food systems increases the quality of community life. Orchards have and could make a sustainable and valuable contribution if they identified more sources of funding for their work. One way that this could be attained is through funding from City departments, but there are also other sources of community-based funding that could be sought.

Urban Agriculture in Seattle

The City of Seattle has historically supported urban agriculture, not simply isolated ventures like the P-Patch Program. The City Council declared their support for designating land for community gardens in 1992 with the passage of resolution 28610 (Lawson 247). They also made a comprehensive plan, Toward a Sustainable Seattle, one of the objectives of which is to have one community garden per 2,500 households (Lawson 247). These measures have been especially significant seeing as many cities are unwilling to set aside land for community gardening purposes for fear of eliminating the potential to reap development revenues. These are also relatively binding decisions that hold the City accountable to communities for their

resolutions. Thus, these plans suggest a long-standing commitment to incorporating urban agriculture into the city landscape.

Recent Developments

Several recent developments have been noteworthy as they indicate the City's continuing support for urban agriculture. The recent appointments of Seattle Mayor Mike McGinn and president of the City Council Richard Conlin, who both have backgrounds in environmental sustainability, have created a leadership team well versed in the importance of having local sustainable economies. They recognize that one of the keys to achieving sustainable economies is to develop local food systems. Together, this leadership team has supported several new initiatives.

In April 2008, Conlin launched the Local Food Initiative. This policy "establishes goals, creates a policy framework, and identifies specific actions to strengthen Seattle and the region's food system in a sustainable and secure way" ("Local Food Action Initiative"). This measure was made in part to respond to the increasing awareness of the dangers of the industrial food system, and the recognition that healthy, locally produced foods provide far better options for the communities and stimulate local economies. Furthermore, McGinn and the City Council declared their campaign "2010: the Year of Urban Agriculture" in order to create awareness about the need for communities to increase access to locally grown food. These measures have served as a good way to draw more attention to and increase the visibility of the different manifestations of urban agriculture in Seattle. However, the potential of orchard projects to support their goals are not referenced at all, although this could be due to the fact that orchard cultivation is a rather recent development.

The Role of the City

Given that the City continues to reaffirm its support for community gardening and other local food production systems, it would seem only natural for administrators to support and allocate funding to contribute to the sustainability of these orchard projects. However, according to the "2011 Seattle Parks and Recreation Budget Reductions," the City of Seattle is dealing with a $67 million budget deficit that has had a resoundingly negative affect on the operating capacity of other municipal departments (1). DPR experienced a $10.2 million budget cut in 2011, which meant that 192 (out of 1,002) employees' positions were either eliminated or faced reduced hours ("2011 Seattle Parks and Recreation Budget Reductions" 1). Seattle DPR employees Baines and Fong say that they cannot complete routine maintenance for these orchard projects as quickly because a lot of the smaller support positions were cut. Budget cuts are expected to continue to be an issue for City departments in the next couple of years, which means they will probably not be likely to provide any immediate support or allocate funding unless these orchards are recognized for their potential as a local food source.

Food Security

Appropriating funding not only contributes to the sustainability of these orchard projects, but it also allows the City to target other issues that plague Seattle communities, such as food security. Food security can be defined as "daily access to an adequate supply of nutritious, affordable, and safe food" (Nordahl 5). The City has recently begun to directly address food security through other urban agriculture initiatives. This is because the City is cognizant that "up to 11% of adults in Seattle ran out of food in 2007, and did not have money to buy more" (Fisher, and Roberts 2). Supporting orchard cultivation helps the municipality achieve their goals

outlined in the Local Food Action Initiative. One of the goals clearly stated in this initiative is to increase access to healthy and local food for community members by "addressing access disparities, recovering surplus edible food, addressing vulnerable populations' needs, and increasing fresh and healthy foods in the food support system (e.g. food banks and meal programs" ("Local Food Action Initiative"). Coincidentally, the goals of these orchard projects are quite similar.

One of the main objectives of orchard projects is to donate excess produce. Janet Farsness estimates that Holy Cross Church Orchard donated 900 lbs of produce last year from their p-patch and orchard combined, and they could easily donate 200 apples per week during the harvesting season. Craig Thompson says that in 2012 the orchard stewards at Dr. Jose Rizal Park hope to harvest up to 1,000 pounds of fruit for local food banks and other charitable organizations. Laura Sweany of the Community Orchard of West Seattle guesses that they will be able to donate 2,500-3,000 lbs of fruit per year once the trees in the orchard are a little bit older. James Rooney says that last year City Fruit donated 10,000 lbs of fruit, and Molly Woodring, who works for Lettuce Link, says that they have already donated 4,000 lbs of Italian prune plums this year. Many of the other orchards have the potential to donate fruit once the trees are healthier and pest-free.

While the orchards in Seattle could never completely support the welfare of the population, the point of a local urban agriculture system is that there are a diversity of suppliers and producers, all of which function to make a dependable and sustainable system. If the City were to recognize the value of these contributions and support the sustainability of these projects, then they could realize that allocating funding for local food sources, such as orchards, helps

accomplish their goals, which include addressing the welfare of Seattle's food insecure communities.

Support

Although City funding could be convenient, there are some responsibilities that the City could assume that do not require funding, but support. Jim Kramer, an orchard steward at Martha Washington Park says the Seattle Public Utilities Department has a plan in the works to put a two million gallon sewage tank in the middle of Martha Washington Park, which coincidentally is where the orchard is located. While this proposition threatens the future of the orchard, it has also served as a rallying call to encourage residents to get involved in the orchard project and oppose the department's plan. However, if City departments recognized the value of these orchards to the development of local food systems, then it is likely that there would be more alternatives to a plan such as this.

The City, not just individual departments or individuals from different departments, needs to consider the importance of Seattle's orchards. If they cannot allocate funding, then the City could at least provide needed support on issues ranging from having easier access to water at the Freeway Estates Community Orchard, to halting the installation of a sewage tank at Martha Washington Park. Spending time mitigating these issues as a community reduces the capacity of these orchard projects to operate at an optimal level.

The Role of Communities and Community Organizations

As much as support from the municipality helps, ultimately, it is the work of community organizations that has been and will continue to be most influential in the sustainability of these

projects. Communities seem to be doing all that they have the capacity to do at this point, given that they are in the early stages of their projects. They are educating, empowering and building communities, not to mention donating fruit to local food banks.

Partnerships between communities and community organizations have been very successful. The knowledge and resources of larger and more established organizations like City Fruit, Seattle Tree Fruit Society, Seattle Tilth, and the like, have been paired with community organizations such as Friends of Piper's Orchard and the other individual community orchard organizations. This has created a network of support for orchard cultivation that did not exist previously.

These projects could also become more sustainable by reaching out for the types of funding that national orchard projects have obtained. For example, the Philadelphia Orchard Project, which began in 2007 and partners with communities in order to help them plant orchards on their identified space, has identified a number of sustainable sources of funding. Phil Forsyth, the orchard manager for the Philadelphia Orchard Project, states that they do quite a lot on a limited budget. They receive funding from small private donations and their annual donation letter. They have also been very successful at increasing donations through their summer music fest fundraiser and other fundraisers throughout the year. This year, they gained 501(c)(3) status and became eligible for more grants. However, much of the success of their program has been due to the voluntary labor of community members. In Seattle, some of the orchard projects are very young and are still working on generating community support for cultivation, but in the future, these are some funding methods that could prove effective for their sustainability.

The next step in trying to make these projects more sustainable for Seattle communities is most likely to try to engage more residents in cultivating the orchards around the city that are

receiving very little care. If the current projects succeed and increase the visibility of the extensive network of orchards in Seattle, then this could encourage other communities to start their own projects. However, this is a difficult endeavor because it is impossible to begin orchard cultivation in a location where there is no community interest or steady funding to do so.

Future Collaboration

The City of Seattle seems to recognize that in order to achieve sustainability, urban agriculture endeavors require a collaborative approach, which includes municipal funding. Fisher and Roberts' report argues in favor of adopting an inter-departmental approach to developing and implementing local food systems that engages the public, private and non-profit sectors (2). This approach is quite distinct from most cities' food policy plans because it recognizes that no successful and sustainable local food system can be operated without the support from all interested parties.

This type of collaborative approach seems to exist in other urban agriculture programs in Seattle, such as the P-Patch Program. This program is run through the collaborative effort of Seattle's Department of Neighborhoods, Seattle Housing Authority, and other agencies, as well as community organization volunteers and residents who own p-patches ("P-Patch Community Gardens"). Over the past several decades, the City recognized how important this growing project was to the Seattle community, which translated to their support and sustainable and steady funding. In 2008, citizens passed the *Parks and Green Spaces Levy*, which allocated $2 million worth of City funding for p-patches across Seattle ("Parks and Green Spaces Levy"). The orchard projects could greatly benefit from municipal funding like this.

While this same collaboration has not come to fruition amongst the orchard projects it is possible that this could happen in the future. However, given the municipality's large budget deficit, funding may not materialize anytime soon, and even if it does, its sustainability may be threatened by various budget cuts. These projects do not depend on a single source, but rather a diversity of parties, all of whom are interested in preserving the longevity of orchard cultivation. A community-based, collaborative approach to seeking sustainable support could include obtaining funding from the municipality as well as other local sources.

"Our goal isn't reforming the whole food system but just tackling one concrete problem. We take the problem of wasted fruit and the problem that not everyone has enough food to eat and put them together. It seems so clear what the good is" – Gail Savina (in Abra Bennett's article "Closing the Urban Fruit Loop" in Edible Seattle magazine's Sept/Oct. 2011 edition, p. 51)

Conclusion

Sustaining Energy

Interest in orchard cultivation has waxed and waned over the years. Much of this can be attributed to Teresa Mares and Devon Peña's observation that urban spatial forms are constantly redefined and reconstituted in response to changing socio-political contexts (241). Thus, this new wave of orchard cultivation can be partly attributed to the burgeoning interest in urban agriculture as a mechanism to contribute to community food security during the economic recession in Seattle. Periods during which there is a lack of interest in orchard cultivation will inevitably occur. However, this does not mean that the work is not sustainable.

One of the most important things that I have learned throughout this research is that anything that has meaning can be sustainable, and sustainability is contingent upon the presence of a diverse variety of ideas and resources flowing through a local space. These orchards have been sown across land that has spatial significance, not simply because of the historical narratives and urban heritage they contain, but because of the people participating in and giving these orchard projects significance to the surrounding communities. The diversity of educational initiatives and other aspects of their curricula that are coming to fruition in these communities have created space to collaborate and share ideas and resources, forming what they hope to be a strong and sustainable network of support.

Impediments

Seattle's fruit trees have the potential to make significant contributions to local food production. However, the reality is that many of the fruit trees in these orchards suffer from pests and disease, which is the result of years of disuse and neglect. Some of the revived orchards may not be able to produce large quantities of fruit for a while. In spite of this, community members still remain hopeful that they will be restored through dedicated care, especially in light of the fact that all of the restoration efforts are creating so many beneficial byproducts.

Since these orchard projects do not have the same history of municipal support that community gardens and other forms of urban agriculture do, it has been a struggle to develop all due credibility. However, in light of the fact that community orchard programs also support many of the goals embedded in recent municipal policies, they could come to yield more deserving support from the City in the future. Nevertheless, communities wonder whether support from various City departments will be sustainable, given the state of the economy.

Ultimately, as James Rooney the president of City Fruit argues, any system of urban agriculture must work through local collaborative power. During City Fruit's first year in existence in 2008, their funding was 90/95% grants, and the rest came from fruit sales, and private donors. By 2010 this had shifted to 60% grants, and the rest of the funding came from profits made off of classes, fruit sales, donors, and membership fees. City Fruit and other community organizations have realized that their sustainability depends on identifying local sources of support and funding, and while this may change from year to year, it is far more reliable than municipal funding.

There is also a national support network of community organizations that can contribute to the sustainability of these projects. Seattle communities have heard about and collaborated

with organizations all across the country, such as Pennsylvania's Philadelphia Orchard Project and Indiana's Bloomington Community Orchard. One of the most significant benefits of this collaboration is that other communities have operated their programs for several years and can share their knowledge and experience in creating sustainable curricula. Sharing resources and providing national grassroots support will be essential to the longevity of Seattle's orchard projects.

Envisioning Fruitopia

What is Fruitopia? It is a term I discovered while reading Abra Bennett's article in the *Edible Seattle* magazine. Fruitopia, as defined by Bennett, is the utopian dream of "pulling a community together to share its existing resources" (51). Is this possible? Maybe, maybe not. Nonetheless, with the concerted effort of many communities throughout Seattle, it seems like for the first time in a while it is becoming an attainable goal.

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