

# Urban Gardening Practices and Culture

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Historically, there have been connections between humans and their environment. Early on, the human interaction was a matter of survival; avoiding the dangers in the environment while meeting basic food and water needs. As time progressed, an intentional relationship developed which supported people with more substantial sustenance and the ability to survive by consistently using the local ecosystem services, such as the provision of water, plants, and animals. There came to be a respect for the resources that nature provided and the powers of nature. Among some people, there was and still is a reverence to nature.

People gathered wild plants, whether it was the leaves, seeds, fruit, stems, or roots, for multiple uses. Plant materials were used for food, drink, medicine, bedding, clothing, and other goods, such as baskets, canoes, decoration and art. With close connections to the environment, their livelihoods were primarily through subsistence harvesting of wild game and plants. Through generations of resourcefulness and adaption, many native cultures continue this interconnectedness with the environment and maintain subsistence lifestyles.

At one point in time, seeds from wild plants were gathered and planted in other locations. The soil was prepared and watered; the plants were protected (National Geographic 2014). One region where people first domesticated and cultivated plants was in the Middle East (Mesopotamia) around 8300 BCE (Stein 2010). These crops were primarily wheat, barley, lentils and different types of peas (National Geographic 2014). Domestication of plants had been occurring in many parts of the world as well, with each region domesticating desired plants to meet the needs that were important for the culture(s) of those regions. In the Meso-America region, one of the first focuses for plant cultivation was food production of maize, beans, and squash.

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The appearances, types, and designs of plots for vegetables, fruits, herbs, and flowers vary depending on locations, purposes, and the backgrounds of the gardeners. Geometric-shaped plots of land with linear rows and squares of vegetables, fruits, herbs, and/or spices has been one form of cultivation. Other gardening approaches are raised garden beds, rows or clusters of flowers, container gardens of vegetables and herbs, or flower pots on window sills. It was noted that homegardens in regions of China are irregular shapes (Huai et al. 2011) and there is diversity in land use patterns as well in Javanese, Kandyan, and Vietnamese homegardens (Mohri et al. 2013). Another more natural design of mixed plant types, permaculture, is one that may appear to be random, but is a more natural use of available space.



Permaculture in urban Alaska

Worldwide, home gardens can be the most adaptable and accessible land resource in communities and these are an important component in reducing vulnerability and ensuring food security (Buchmann 2009). As it is in many countries, this has also been the case in the United States.

## Historical Promotion of Gardens in American (U.S.) Culture

Gardens and growing food have been integral in American history. Local and federal governments have promoted and involved with food production campaigns over decades. During the depression from 1893 to 1897, garden programs were started to assist the unemployed with producing food for consumption and sale. Beginning in

Detroit, the mayor proposed donated vacant land for gardens and plots, seeds, and instructions for planting and plant care were given to the unemployed. With its success, programs like this one began in other major cities (Lawson 2009). Carter (2010) provided a quote from Dick Crosby of the U.S. Department of Agriculture in 1902 and he observed, “Teachers who have had experience with school gardens are almost unanimous in testifying to the good influence of the well-kept garden. Children develop a feeling for the beautiful; they become neater in their habits, less troublesome, kinder; they take pride in keeping the schoolyard neat. And the influence extends beyond the school grounds to the homes. Children start home gardens, begin to adorn backyards, porches, and windows; the parents become interested, and the influence goes on and on.”

As the economy improved, most of the garden programs ended; though one in Philadelphia continued into the 1920s. Lawson (2009) highlighted the Children’s School Civic Garden Movement and Civic Gardening in the 1890–1920s. One of the first school gardens started in Boston in 1891. Teachers and local organizations supported these programs. In 1914, the U.S. Bureau of Education started the Division of Home and School Gardening. Civic gardening was promoted as beautification campaigns with a focus on vacant lot, school, and home gardens.

During the time period of World War I (1914-1918), the U.S. government reviewed European mobilization strategies to see what approaches other countries were employing. Since there were limited food resources available in the U.S., the government asked its citizens, rather than impose regulations, to voluntarily conserve food and to plant gardens of vegetables and fruits for consumption. These “War Garden” plots began showing up throughout the nation. For many people, this was a way for them to support their country; an act of patriotism (Watts 2007). A National War Garden Commission had been created and one of its tasks was to publish instructional materials on planting vegetable and fruits and garden care. Once the war was over, the name of these garden plots changed to “Victory Gardens”. The Commission continued to encourage the maintenance of these garden plots to meet peace time needs. However, they disappeared by 1920 (Watts 2007).

During the Great Depression (1929–1939), the U.S. government and related agencies took a renewed interest in promoting Victory Gardens to be able to feed the many people in need throughout the country. Even with these efforts to promote widespread home and community gardens, the idea did not take hold. One speculation for this was that those who most needed the food often lacked the money to purchase seeds and tools for gardening.

In 1943, with the U.S. involvement in World War II the nation again faced food shortages and had to ration most foods. Eleanor Roosevelt encouraged a return to Victory Gardens (Anonymous 2009). She planted a garden at the White House. This was not only for food production, but also a way to maintain public morale of the country; unifying the nation with this display of emotional support for many Americans. Gardens brought about a sense of order in the world, which at the time seemed chaotic.

The U.S. Department of Agriculture led the efforts for citizens to plant gardens, again, to increase the production and consumption of fresh fruits and vegetables in

order to meet the demand. The home and community gardens were means to supplement the American diet and families could save money by not having to purchase food. Agricultural extension agents provided growing instructions and practical tips for gardeners (Anonymous 1943) in addition to expert gardeners providing advice for those more novice (Watts 2007). People were encouraged to preserve their surplus of vegetables and fruits by freezing, drying, and canning. Canning was the most popular method used.

Local governments provided opportunities for urban dwellers to grow food by allowing garden plots to be developed on public and municipal property. Local businesses promoted gardens among their employees, even starting clubs. Schools and their students planted gardens and the produce was cooked and served in the cafeterias (Watts 2007). As Watts (2007) reported, it was estimated that 22 million families had planted gardens in the 1942 growing season. Americans canned an average of 165 jars of food per family annually during the war. In October 1942, The Science News-Letter published that Victory Gardens produced 8,000,000 tons of food, based on the statistics from the U.S. Department of Agriculture. Approximately one out of every two families in the country had a Victory Garden (The Science News-Letter 1943). Teachers initiated growing plants for school science class experiments for students to learn about plant growth as well as for use in their home gardens (Culver 1942). During those decades, having gardens was a part of American culture and citizens took pride in producing their own food.

## **Use of Space for Health and Well-Being**

Today, the resurging interest in home and community gardens continues to focus on growing one's own food. Another function also allows residents to participate in shaping their urban environments (Armstrong 2000; Baker 2004). Altieri et al. (1999) found that Cuban urban gardens helped to empower individuals and communities. The residents had renewed solidarity and purpose within neighborhoods, sustaining morale during periods of economic crisis. As Ghose and Pettygrove (2014) illustrated in their example in the inner city of Milwaukee, where there has been a history of racial segregation and marginalization, persistent food insecurity was one motivation for community gardening and citizen activism. With this, a rare opportunity provided marginalized residents to reshape their neighborhoods and the use of land. In one of the primarily African American neighborhoods, Haramabee, the first garden was founded in 1992 by a local church to provide an educational space for the church's youth programs. More recently, there has been a re-emerging of community gardens from vacant lots; to grow fresh produce, to create more green space, and to serve other purposes. The use of space and growing gardens can be about much more than growing food. Through gardening, a sense of pride and self- and cultural-identity can be nurtured (Ghose and Pettygrove 2014; Vue et al 2011; Yeh et al. 2008) and social interaction can often take place and be encouraged (Ghose and Pettygrove 2014; Waldenberger 2000). Gardens can provide significant

therapeutic relief and, in the case of communities with immigrant populations, can ease psychological strain that comes with migration (Mazumdar and Mazumdar 2012). Growing gardens can also serve as a bridge for new residents, especially those immigrating into the U.S., by providing a venue to fit into a new community, country, and/or culture and to bridge cultural differences and build connections between each other around the shared activities (Ghose and Pettygrove 2014; Christie 2004).

As previously described, the appearances of gardens may differ, often as a result of individual and cultural expression. Gardeners may display an array of garden art. This distinctive characteristic, as in 'barrio gardens', even goes beyond this with the use of recycled materials as decorative elements, planters, and fencing (Waldenberger 2000). Items may be placed in the garden, not only for aesthetics or practicality, but for an alternative reason (Gill 1999). A cracked cup or pitcher may be filled with dirt and flowers as a remembrance of the person who once used these items. Plants, seedlings, shoots or slips may come from a loved one's favorite tree or flowering bush or from the gardens of friends and family. Through collecting and planting in this way, it is a method for filling space with connections while creating and tending social relationships.

## Sense of Identities

Through gardens and the plants grown, personal (self), social, cultural, and ecological identities can be expressed. Learning about foods and horticultural practices in other cultures can help gain insight into the importance of plants in the lives of diverse peoples and communities. As Vue et al. (2011) stated, it is important to recognize the benefits of retaining immigrants' lifestyles and food habits from their countries of origin. Food plays important roles in one's culture and identity (Vue et al. 2011; Yeh et al. 2008; Head et al. 2004).

People who have come from rural areas in other countries have commented that they may not have had much, but living on a farm made it easier to eat fruits and vegetables (Yeh et al. 2008). In one of countless examples, a Laotian woman, who had been raised in a rural area, tried to recreate her farm when she arrived to the U.S. She was sent seeds of traditional Hmong varieties of vegetables from a relative in Laos or she would get them from friends and neighbors (Jensen 2004). This may also be true with residents from rural areas within the U.S., as the lifestyle and local culture in rural areas are often different from urban environments.

Hispanic participants, mostly immigrants, in a study by Yeh et al. (2008), stated that there is a need to improve access to and availability of fresh fruits and vegetables that are commonly available in the native countries of the immigrants. The ability to grow one's own food can be an important cultural practice, regardless of whether one is native born or an immigrant to a country. As one Harambee (Milwaukee) resident and gardener stated "that's African American culture: we grow our own foods" (Ghose and Pettygrove 2014). Hmong people and culture are

known for agricultural and gardening skills (Corlett et al. 2003). One example of this is in French Guiana where Hmong farmers produce 80 % of the fruits and vegetables consumed (Brady 2011). Hmong cultural identity in relation to food was strongly emphasized by women in a study by Vue et al. (2011). One woman emphasized that “Hmong food is us, helping us remember who we are.” In their native countries, they grew all their herbs, spices, and vegetables. Here in the U.S., most Hmong still try to stay true to this (Hmong Culture 2014).

Growing gardens can nurture a sense of pride and cultural identity (Ghose and Pettygrove 2014). Certain plants can carry special memories for some people. As Rishbeth (2004) highlighted in a case study of a community garden in England, some of the ethnic minority groups enjoyed growing familiar fruit-producing plants that they had in their countries of origin.

## **Gardens and Food for Meeting Social Needs, Spirituality and a Sense of Place**

The garden itself can also be a sacred place. It can serve as a reminder of the connection between spirituality and nature and be a place to nurture the spirit or a place for religious worship. Gardeners from Macedonia often established a routine of walking around their gardens each morning. They would check on how everything was growing and at the same time this was creating a strong sense of daily connection with the natural environment (Head et al. 2004). For some, gardens may be a site for sitting in quiet meditation or a place for walking meditation where one can be calmed and/or energized by the natural scenery. Placement of significant statues, alters, and shrines can transform the garden space to a religious sanctuary. As Mazumdar and Mazumdar (2012) point out, religion plays an important role in home gardens of Hindus from India and Buddhists from Vietnam. Offerings of fresh flowers and fruits from one’s own garden, if possible, and some plants have specific ritual significance. According to Waldenberger (2000), the beauty of flowers feed the soul and enhance the spiritual health of the family. In some cultures, bouquets of garden flowers are often offered to saints at the community churches on special occasions. Certain flowers and plants have special meanings for special festivals and celebratory events.

For some, a way of nurturing the spirit is through social interaction. Community gardens not only revitalize the space and land, but can also build cooperation and collaboration within communities. They can be a centralized public space where people interact, work together, and share equipment, supplies, plants, and produce as well as a setting for impromptu lessons and story sharing. Gardens can serve as a mechanism for social support systems. This can aid new residents, especially those from other countries, since they often must learn a new language, lifestyle, and cultural practices. It can be difficult and take time to acquire these skills and understanding to feel acclimated. New residents can feel socially isolated, alone and fundamentally out of place (Li et al. 2010). For first generation immigrants, Mazumdar

and Mazumdar (2012) noted that having a kitchen garden brought joy, a source of pride, and a way for them to express their cognitive ideas and memories into their new location. The second generation then has the opportunity to learn about their ethnic heritage through plants, cooking and traditional foods. The community gardens become a social place; a place where friends and family can come together to garden, rest, eat, and share their bounty. A Laotian woman learned about food preservation, freezing vegetables, from a friend and she now prepares and stores away freezers full for the winter (Jensen 2004). Within many cultures, food is a foundation for cultural, spiritual, social, and celebratory events. These are times when people come together to prepare foods, eat, and to celebrate; a way of socializing (Saldivar-Tanaka and Krasny 2004).

Gardens can be seen as multigenerational space. This can encourage more interaction and sharing as well as the transfer of knowledge (Ghose and Pettygrove 2014), which allows the infusion of storytelling (Eames-Sheavly 1993, 1994). It has been noted that there has been a progressive loss of knowledge between the younger and older generations (Torri and Hollenberg 2012). Issues of intergenerational food habits often arise and older generations struggle to keep traditional food habits and culture from eroding (Vue et al. 2011). As Mazumdar and Mazumdar (2012) indicated, the first generation immigrants took pride and joy having a kitchen garden, while the second generation can learn about traditional foods and their ethnic heritage. In Latino community gardens in New York City, a variety of learning takes place. According to one gardener, “(kids) plant seeds that become plants and flowers, and we plant seeds of culture that will grow and make (kids) stronger for this society” (Saldivar-Tanaka and Krasny 2004).

Waldenberger (2000) described a ‘barrio garden’, historically seen in Tucson, as a private, hidden treasure. The houses surrounded the internal garden or patio, incorporating it into the living area and the greenery being an integral part of this housing type. The gardens themselves were planted and nurtured through generations of women. As she also reported, nearly every flower, herb, tree or vegetable within the barrio garden had been carefully planted, nurtured, harvested, and saved. Each had either a direct or indirect association with another garden or gardener, a family member, or a friend. “Every plant has a story” (Guadalupe Castillo 1999).

Home gardens reflect the integrated concept of human-in-nature (Berkes et al. 2003). Folke et al. (2003) highlighted four categories of factors for building resilience: (1) learning to live with change and uncertainty; (2) nurturing diversity for reorganization and renewal; (3) combining different types of knowledge; and (4) creating opportunity for self-organization. Natural and human generated disasters, population growth, deforestation, monocultures, and town planning often threaten ecosystems harboring useful wild plants that often have traditionally been collected for household use. The collection and transplantation of wild plants into home gardens has been called ‘capture-to-culture’ response (Parnwell and Taylor cited in Johnson and Grivetti 2002).

## Gardens for Food and Medicine

In a study by Torrie and Hollenberg (2012), an East Indian woman stated “There is no difference between food and medicine.” Another participant affirmed that it is important to eat well and to know which plants keep you healthy. Twenty-three of the 35 participants mainly used plants for prevention purposes and basic health needs with most having specific medicinal properties.

Many gardens in urban settings have botanical diversity. A ‘kitchen garden’ is often a section of the garden space, which supports cultural cuisine and everyday food preparations, as well as the practice of ethno-medicine. An Iranian-American woman stated that “There is no ingredient more fresh than the one you grow yourself.” (Mazumdar and Mazumdar 2012). Latino barrio gardens were adjunct to the kitchen and cooking; and provided spices, herbs and chiles for the meals (Waldenberger 2000). Gardens will often produce enough vegetables, fruits and herbs to feed a family and a surplus to sell or trade. A Laotian gardener’s plots in Wisconsin fed dozens of her local relatives and provided them with specialty foods from their country of origin (Jensen 2004). Traditionally, medicinal herbs are grown near the family’s home.

Similar findings are reported from around the world. In Tajikistan, fruits and vegetables are important in local diets, and families grow main ingredients of traditional dishes. Rowe (2009) reported of 236 households observed only seven of these did not have a kitchen garden, and these seven households had the lowest incomes. There is an extensive species diversity of traditional vegetables in Benin with widespread utilization in rural communities (Achigan-Dako et al. 2011). Gardens in India often were a mix of vegetables, herbs, and spices and 10 % of the plants grown were for medicinal use (Torri and Hollenberg 2012). Many edible plants and foods have been and continue to be ingested because of their perceived medicinal and health promoting characteristics (Jacobs and Steffen 2003; Kris-Etherton et al. 2002). The perception of ‘taste’ is culturally determined and can influence this (Jonsson et al. 2002a,b; Pieroni et al. 2002). The therapeutic properties of herbs and spices in preventive health have been documented (Liu 2003). For example, *chaya*, a Mayan vegetable, is often planted in Guatemalan home gardens primarily as a food, though it has medicinal properties as well (Ross-Ibarra and Molina-Cruz 2002).

Therapeutic purposes often differ for different members of the family, depending on gender and age groups. Certain plants are consumed in different stages of life as well, such as in elder women and pregnant women (Torri and Hollenberg 2012). Brady (2011) reported that 11 of the 13 Hmong households with gardens, herb medicinal plants were grown. Older women and the married women with children had greater awareness of the interlinkages between plant uses in the kitchen and their therapeutic uses (Torri and Hollenberg 2012).

Food habits vary among cultures, between generations within a culture, and within families. For families immigrating into the U.S., the first generation may have had or have a very different lifestyle and expectations than the future generations born in the U.S. Preparing and eating culturally traditional foods may be chal-



lenged for various reasons. Fruits and vegetables are not often seen in the media and advertisements and this can have a negative impact on consumption (Yeh et al. 2008). Food habits are very dynamic (Baumann 1999; Waldstein 2006) and so is the appreciation of edible plants, especially within younger generations (Torri and Hollenberg 2012).

Plants may be grown and harvested in different ways depending on the culture. A person from one culture may prepare a plant as food by only using the leaves or the above-ground part of the plant, while in some cultures the entire plant with the roots may be used for cooking (Slocum 2006). Home food environment has an impact on the foods that are eaten in the family unit (Kratt et al. 2000; Campbell et al. 2007a, b) and it has an effect on fruit and vegetable consumption later in life (French et al. 2001; Katz 2003). Access to fresh vegetables and fruits is a key determinant of vegetable and fruit consumption (Gatto et al. 2012). Eating home-prepared foods using home-grown vegetables, fruits, and herbs is generally more nutritious. The majority of the Hmong women in one study stated that Hmong food was healthier than American food. The ingredients often used, such as vegetables and herbs, are fresh; not with additives and chemicals (Vue et al. 2011). A Vietnamese-American family mentioned that growing their own food in Vietnam was common. Specific herbs are grown for their meals and winter melons, okra and lemongrass are in their home garden. The exotic ingredients cannot be easily found in local [U.S.] markets, so growing them is the best way to obtain them.

According to Yeh et al. (2008), growing up with fruits and vegetables helps develop a taste for certain foods and flavors. Upbringing and family influence were a central determinant for food preferences reported by three ethnic groups: Hispanic, African American, and Caucasian (Yeh et al. 2008). This can begin with the choices of complementary foods for babies and the diets for toddlers.

## Discussion

Environment, plants, and gardening are important to people and their lives. Not only for producing food for consumption and sale, important for food security and sustainability, but also for promoting healthier lives. To maintain healthy people and healthy lifestyles, other roles of gardens and space deserve focus and nurturing. As noted in many of the cultural descriptions, gardens serve many purposes and many have special meanings that may differ among people. They can stimulate multi-sensorial memories, through sight, smell, taste, sound, and touch. Whether it is ties and memories with a country of origin or connections with ancestors and relatives, a gathering place for friends and family, or a place of solitude and tranquility, home and community gardens go beyond just a plot of soil.

When city planners and community organizations are planning designated sites for city growth, rehabilitation of brown fields, or transformation of an urban lot, there should be consideration for the integration of garden spaces, not only to promote

food security, but also human-environment interaction, cultural identity and social cohesion, as well as cross-generational transmission of gardening knowledge.

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