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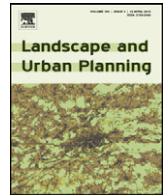
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Immigrant home gardens: Places of religion, culture, ecology, and family

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ABSTRACT

This paper focuses on the role of home gardens in the lives of immigrants. An ethnographic research was conducted which included observations of 16 home gardens and unstructured open-ended interviews with 28 immigrants from India, Vietnam; Indonesia, Philippines, Iran, China and Taiwan, to Southern California, USA. The lessons from this study are that for immigrants home gardens can be: (a) religious space enabling everyday practice of religion as well as meditation and socialization; (b) culture space through plants, fruits and flowers that enable cultural cuisine, ethnomedicine, and identity continuity; (c) ecological space that assists with environmental/ecological nostalgia, reconnecting people with landscapes left behind as well as forging new connections to place; (d) family memorial space where gardens honor and memorialize family members and provide opportunities for intergenerational linkages. These enable immigrants to engage with, personalize, and experience their new environment in deeply meaningful ways.

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1. Introduction

1.1. Importance of place

Several scholars have studied the connection between people and place (Altman & Low, 1992; Guiliani, 2003; Hidalgo & Hernandez, 2001; Lewicka, 2010; Mazumdar & Mazumdar, 1993, 2004, 2009a,b; Proshansky, Fabian, & Kaminoff, 1983; Relph, 1976; Scannell & Gifford, 2010; Tuan, 1974) leading to the formulation of such concepts as sense of place, place identity, place meaning and place attachment. The literature teaches that places are “profound centres of human existence” (Relph, 1976:43), deeply steeped in meaning and sentiment (Lofland, 1998), with the capacity to evoke that which is special (Sheldrake, 2001). They help to anchor an individual (Cooper Marcus, 1992), give stability (Brown & Perkins, 1992) and provide a sense of belonging (Fullilove, 1996). In a recent review essay, Scannell and Gifford (2010), have proposed a “tripartite person-process-place” framework drawing attention to place attachment as individual and as collective phenomena, the characteristics of place, and the psychological process involved in the development of place ties.

For some, attachment to place is so strong that place loss due to destruction, displacement, or relocation can lead to a deep sense

of grief and bereavement (Brown & Perkins, 1992; Fried, 1963; Fullilove, 1996; Gans, 1962; Scannell & Gifford, 2010). This in turn can have negative consequences for mental health (Fullilove, 1996). In instances where cities or parts have to be rebuilt following natural disasters, giving planners an opportunity to correct flaws in city design, local residents expressed their strong attachment to place by wanting the rebuilt section to remain unchanged, inclusive of earlier design flaws (Scannell & Gifford, 2010:4).

Immigrants, when they cross national boundaries, leave behind their significant places—homes and gardens, parks and plazas, neighborhoods and landmarks. Absence of these “material anchors” (Mehta & Belk, 1991) can cause them to feel alienated and disoriented (Fullilove, 1996). Some rely on memories of place to create a new “home” for themselves. This paper describes how immigrants engage with their new environment through the creation, personalization and use of home gardens.

1.2. Gardens as significant space

“Gardens have special meaning. They are powerful settings for human life, transcending time, place and culture” (Francis & Hester, 1990:2). In recent years, there has been increased interest in examining the role of gardens, gardening practices, memories of past gardens and the gardening experience itself (Clayton, 2007; Cooper Marcus, 1992; Francis, 1995; Francis & Hester, 1990; Gross & Lane, 2007; Kiesling & Manning, 2010). Three major themes emerge from the literature.

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1.2.1. Gardens and well-being

First, research on gardens has established the connection between gardening and psychological well-being (Francis & Hester, 1990; Kaplan, 1973; Kaplan & Kaplan, 1990; Kuo & Taylor, 2004). Kaplan and Kaplan's (1990) path-breaking research focused attention on the restorative experience of gardens, an experience that facilitates recovery from everyday stress, anxiety, and fatigue. Further evidence of psychological benefit comes from Winterbottom's (1998:90–91) study of Puerto Rican *casitas* in New York City. Surrounded by a high stress environment of poverty, unemployment, substandard housing and crime, with minimal contact with nature, the process of planting and observing plants grow to maturity in the *casitas* provided the residents with significant therapeutic relief from the anxieties and challenges of daily living. Additionally, as pointed out by Alanen (1990), gardens can ease psychological strain that comes with migration.

Contact with and access to nature has potential benefits for both physical and mental health (Frumkin, 2003), aiding in recovery after surgery (Ulrich, 1984), stress reduction in children (Wells & Evans, 2003) and cognitive functioning (Shibata & Suzuki, 2002).

1.2.2. Gardens and memories

Second, the literature reveals that gardens are containers of memory, of past landscapes, trees and plants (Bhatti & Church, 2001; Thompson, 2005), childhood play and hideaway spaces (Cooper Marcus, 1992; Francis, 1995), material artifacts, such as gazebos, furniture, tools, and social interaction and formation of significant relationships with friends, parents, and grandparents (Bhatti & Church, 2001; Francis, 1995). According to Francis (1995:8) "past memories of favorite childhood gardens spill over on to present and ideal images of gardens." Certain plants carry special meaning and "unlike gardens are transferrable from home to home" (Bhatti & Church, 2001:377). In a case study of a community garden in England, ethnic minority groups took pleasure in growing fruit producing plants, such as olives and grapes, from their countries of origin (Rishbeth, 2004). Similar findings were reported by Winterbottom (1998), Thompson (2005) and Morgan, Rocha, and Poynting (2005). For refugees from war torn countries, such as the Hmong from Laos, growing familiar fruits and vegetables, while enjoyable, was also tinged with sadness, a reminder of the land and lives they had lost forever (Giraud, 1990:170).

1.2.3. Gardens and identity

Third, several authors have focused on how gardens can express personal, social, cultural and environmental/ecological identities (Bhatti & Church, 2004; Clayton, 2007; Kiesling & Manning, 2010; Thomashow, 1995). At the personal level, gardens can reflect an individual's creativity, originality, planting preference, and gardening styles (Clayton, 2007; Gross and Lane, 2007). According to Francis (1990:206), "we use our gardens to communicate to others, to show the public world how we feel about ourselves and the larger world that surrounds us. Through our gardens, we reveal to ourselves and others . . . our personality, aesthetics, environmental values . . .". In some instances, different members of the same household may compartmentalize and carve out their niches within the garden to reflect their unique gardening interests and passions (Gross and Lane, 2007). This desire to create one's own garden may also influence future home selection, where prospective homeowners may prefer a garden space with the flexibility to easily add, modify, and transform, rather than move into a home with a well-established garden reflecting the previous owner's preferences (Gross and Lane, 2007). At the social level, gardens can facilitate social interaction among neighbors (Bhatti & Church, 2001; Clayton, 2007). At other times, landscape and landscaping can be a source of disagreement based on cultural identities, preferences and values. In a case in Toronto, where groups with different

ideas regarding planting and height of trees clashed over this issue, Portuguese and Italians desired to keep trees short for facilitating better view of their neighbors, Anglo-Saxons by contrast preferred tall leafy trees, which protected privacy though the Chinese felt that trees placed in front of their homes brought bad luck (Qadeer, 1997). Gardens can express the gardener's relationship with the environment or his/her ecological identity, e.g. through the creation of an organic garden and the non-use of chemical fertilizers and pesticides (Kiesling & Manning, 2010). Although a few have thus made important contributions, research on immigrant home gardens is largely incomplete.

2. This study of immigrant home gardens

2.1. Research questions

With the broad objective of learning about how immigrants design and landscape their home gardens and what these gardens mean to them, the following research questions were pursued. Do gardens assist immigrants in forming attachments to their new places? What role does environmental nostalgia of past places play in the composition, layout and ambiance of their present gardens? Are their ties with family, religion, cuisine, and culture helped by gardens? This paper comes from a 20-month-long on-going research project on immigrants being conducted by the research team members. Gardens here refer to front and back yards of medium to small size private urban and suburban home lots. Large exurban or rural-fringe properties were not included.

2.2. Method

The methodology used to enable this was ethnographic research. The primary intent was to obtain detailed, deep, up-close, emic understanding of immigrant home gardens in Southern California, USA. This was inspired by the idea of *verstehen* proposed by Wilhelm Dilthey (see Ermath, 1978), and adapted into the social sciences by Max Weber and Alfred Schutz (Schutz, 1967). A second objective was to acquire knowledge of gardening practices, religious rites, cultural mores, family/generation ties, and linkages to landscapes left behind. A third was to study the phenomenon naturally, i.e. to visit as many of the gardens as possible.

Families in this study came to the United States within the last forty years, from India (7), Vietnam (7), Indonesia (4), the Philippines (4), Iran (4), Taiwan (1), and China (1). Recruitment of participants was by means of "opportunity sampling" and "snowball sampling" relying on personal contact and announcement in undergraduate classes at the researchers' university. All participants volunteered.

Data collection strategies included both observation and interview as described below. This two-pronged approach was to enable rich and good data regarding the landscaping done as well as the thoughts and motivations.

2.2.1. Observation

Detailed (non-participant) observations were conducted of several components. The physical setting of the garden was the subject of careful examination. Particular attention was paid to landscape elements—trees, plants, flowers, fruits, vegetables and herbs, their location and arrangement, and use of physical artifacts. People as well as activities that took place in the garden were also included in the observations. These were recorded with participants' permission through field notes, sketches, and photographs.

Observation sessions varied in length from 20 minutes (short tour) to an hour. Included were home gardens in Southern California of sixteen immigrant families who agreed to participate. They

were from Vietnam (3), Indonesia (4), India (4), Philippines (2), Iran (2), and China (1).

2.2.2. Interviews

Interviews were also used to collect data. Unstructured open-ended interviews were conducted. Questions attempted to learn about the immigrants from an emic perspective. Unstructured questions enabled delving into details of memories of past places and events, ceremonies and rituals, connection with families and friends, and landscape ecology, including plants trees, flowers and fruits, and their significance in the context of their present garden. Interviewees could respond in as much length as they wanted. Answers were open ended and varied in length.

Interviews lasted from 45 minutes to 2 hours, but most were over an hour. A few participants were interviewed more than once. Interviews were conducted with 28 persons from the families noted earlier. The important focus was on learning as much as possible and not on considerations of length or number (Kvale, 1996). The participants were seen as teachers (Spradley, 1979).

For quotes from data included in the paper, to protect the identity of the research subjects, following Institutional Review Board guidelines, only substituted pseudonyms have been used. Each interview covered several themes and so the quotes contain as much detail as necessary to illustrate or elaborate on a theme.

2.3. Analysis

For data analysis a “discovery of grounded theory” (Glaser & Strauss, 1967) approach was used to capture emergent themes arising from the data. This involved textualization of the data (conversion of the data into text form through transcription), reading and familiarization with the data, identification of portions that revealed about gardens, and coding of emergent aspects, ideas, and themes. These were then organized into broader thematic categories. Four themes that emerged are: gardens as (a) sacred space, (b) cultural space, (c) ecological space, and (d) as family memorial space. These are described next.

3. Gardens as sacred space

Religion plays an important role in the home gardens of Hindus from India and Buddhists from Vietnam. Unlike the Abrahamic religions, Hinduism and Buddhism do not require their believers to attend collective prayers at temple on a mandated day and time. Instead, the focus is on every day private prayer/meditation at home. For them, home becomes a sacred microcosm made meaningful through artifacts, flowers and trees. The focal point of their domestic religious life is the home altar. Placed here are religious icons, statues and symbols, incense and lamps.

The influence of Buddhism is evident in the home of the Nguyen family from Vietnam. Mrs. Nguyen’s altar is very special to her; the statues of Buddha, photos and jewelry placed on the altar have been all blessed by a monk or high ranking religious functionary. Daily offerings are made that include fresh flowers and fruits when possible from one’s garden. Herein lies an important connection between religious rituals and gardens. Mrs. Nguyen has created a garden with abundant flowers and fruits that she can offer at her altar. Of particular significance are the many roses (more than ten varieties) and orchids she has planted. These home-grown flowers are decoratively placed on the altar, along with fresh fruit offerings from the garden such as oranges, pomelos, and kumquats.

Altars in Hindu American homes contain pictures, statues, and paintings of Hindu Gods and Goddesses, such as Ganesha, Shiva, Durga, Kali, Lakshmi, Saraswati, among others. Botanical elements are associated with different deities, for example, lotus with Lakshmi, *Bael* (*Aegle marmelos*) leaves with Shiva, and so on. For Hindus,

pooja (prayer or worship) rituals involve the use of significant flowers, leaves, and fruits at the altar, both at home and at the temple. Some flowers and plants, such as hibiscus, rose, gardenia, *tulasi* (holy basil), mango leaves, are *shuva* (auspicious) and offered during prayer, though others that exude sticky or milky substances are considered inauspicious and avoided. Every morning during *pooja* fresh flowers and fruits are placed at the home altar. Such offerings from one’s garden are seen as acts of devotion. On special Hindu holidays, family members may make intricate garlands using homegrown flowers, such as jasmine and plumeria, to put around the deities (Mazumdar & Mazumdar, 2009a).

To plant, and carefully nurture specific flowers and fruit-bearing trees used in religious ritual becomes an important aspect of gardening. Families make special effort to procure ritually significant plants through special orders to local nurseries, obtaining seeds from family, friends, and nearby temples. In Hindu homes, special status is given to the *tulasi* (holy basil) plant; it can be planted outdoors in the garden or grown in a pot indoors or both (Mazumdar & Mazumdar, 2009a). The following is a description from the Mishra family home.

The *tulasi* plant is located in a shady section in the backyard. The soil has been specially treated with mulch and peanut shells to facilitate its growth. The main plant is luxuriant with shiny leaves. Next to it are tiny saplings taking root (Field observation 12/09/10).

In another household, there were two *tulasi* plants, one near the front entrance and the other in the backyard. Other plants and flowers include hibiscus, jasmine, marigold, roses and gardenia—all used in prayer and placed on the Hindu altar. One family’s decision to buy a home was partially influenced by the profusion of red hibiscus flowers (considered auspicious) existing in the backyard.

Besides being used in daily offering, certain flowers/plants have special meaning for specific festivals and celebratory events. One example is *Tet*, the Vietnamese New Year. *Tet* is seen as a time of renewal and new beginnings and Vietnamese families mark the occasion by planting new trees (especially those bearing citrus fruits) in their gardens. Trees with miniature oranges are placed inside the home as well, with greeting cards and good luck emblems hung from their branches. Homes are decorated with flowers such as *Hoa Mai* (a delicate yellow five-petaled flower), orchids, cherry blossom and chrysanthemums.

Hoa Mai is the symbolic flower of *Tet*. My mom plucks all the leaves [from our *Hoa Mai* plant] approximately 1.5 months before *Tet* so that they bloom in perfect timing for *Tet* (Vanya 01/13/10).

Beyond facilitating the practice of religion, in some households, the garden itself becomes a sacred setting through the performance of rituals, prayers, meditation, and by the presence of outdoor shrines and sacred artifacts, such as statues of Buddha or Bodhisattvas and Ganesha. Some outdoor altars/shrines are temporary in nature created for a specific event or ritual and then disassembled. For example, during *Tet* celebrations, Vietnamese Buddhists may set up in their backyard an additional altar dedicated to ancestors. Placed here are flowers, fruits, incense and cooked food offerings. Other outdoor shrines are permanent fixtures such as the one in Priya’s home where they created an altar in the back patio dedicated to the Hindu God Shiva. They placed incense holders for lighting incense, a *tulasi* (holy basil) plant used during prayer and a jasmine plant whose flowers were offered during *pooja*. Similarly, the Makhijani family has plans to build a mini Hindu *mandir* (temple) in their new backyard:

An outdoor *mandir* is an idea in the works. It has not yet been constructed, but my Dad in particular desires an outdoor

space [where] he can sit and meditate. The idea consists of a small mandir-like structure with miniature statues of Hindu deities. He particularly wants a statue of Lord Ganesha, inside the mandir structure, or directly next to it. The purpose of this particular mandir . . . is to act as an escape from the stresses of everyday life. By sitting outside and meditating, you feel one with the earth, one with nature. . . (Sunita 09/01/09).

For some Hindu Americans, an outdoor shrine is a reminder they believe, of the connection between spirituality and nature, the sacredness of the earth, water, flowers and all living creatures.

Gardens with or without shrines can facilitate meditation. For example, being in the garden becomes an act of meditation for Mrs. Nguyen:

In Buddhism, we are encouraged to meditate and stay calm. When my mom is stressed, angry or sad, she will work in the garden or sit in the garden since it helps her relax. The garden provides an outlet for her to release her feelings and allows her to practice being a “correct” Buddhist. She may pace around the garden as a form of meditation (Vanya 03/10/10).

Home gardens such as those described in this section can thus become extensions of the domestic religious life of first generation immigrant families. Planted with significant trees and flowers imbued with symbolic meaning they help to support a religious life, as well as create a sacred landscape. Since home is the primary place for religious socialization for Hindus and Buddhists, the garden facilitates the transmission and teaching of religion to the second generation. Children born in America can experience a sacred micro landscape, be taught the symbolic meaning of flowers significant to their religious practice (the lotus in Buddhism; the offering of red hibiscus to Goddess Kali in Hinduism), the distinction between flowers that are auspicious and those that are not, as well as the rituals and care in handling needed when used as offering at the altar.

4. Gardens as cultural space

Gardens of immigrant homes studied contained both a back and a front yard. The landscaping, aesthetics and use of each space was distinctive and different, providing a unique blend of two cultures—the local and the country of origin of the family. The front yard in most cases blended in easily with the ambiance of the typical Southern California landscape with neatly trimmed grass and flowers such as geraniums, roses, impatiens, begonias and daisies decoratively bordering the home. The following is a description from field observation.

Binita lives in a new house built in 2005. Driving down her street one notices a certain homogeneity and uniformity in the landscaping. Binita’s front yard looks like the yards of other homes on her street . . . a well-watered, well-manicured bright green lawn with several rose bushes and a variety of brightly colored flowers such as petunias, asters . . . (Field Observation 11/23/09).

This is similar to Nana’s description of her garden.

The front yard has a more Americanized feel to it . . . The walkway leading to our front door is wedged between the two big patches of grass and as you walk towards the door there are two rows of flowers parallel to the cement entry way (Nana 05/27/10).

The ambiance of the front yard expresses the desire of the first generation to “fit in,” to not “stand out” especially in the visible public area of the home. In a few instances, homeowners planted trees that were different from the surrounding homes. For example Vanya’s Vietnamese American home has a kumquat tree in the

front. In another, Vietnamese American home, the residents have planted banana trees and as the resident explained. “If you see a banana tree in the front, you know the family is most likely from Vietnam.”

The backyard, hidden from public view, is transformed by many into an “ethnic” space. One section is set aside to form the “kitchen garden” which supports cultural cuisine, everyday food preparations as well as the practice of ethno-medicine. Planted with herbs, garnishes, vegetables and fruits, the kitchen garden can provide easy access to raw materials especially if these are not easily available in local stores or when families live far away from ethnic markets and have to drive long distances to have access to them. The following is one description of the kitchen garden of a Vietnamese American family.

Our front yard is Americanized but our backyard tells a different story. In the side of our house is a patch filled with various Asian herbs. It reminds [us] of [Vietnam] where growing your own food is a very common thing. My family actually uses these herbs in our meals. . . when you look out of the patio door you can see *bi dao* (winter melons) hanging down waiting to be harvested. There [are] okra and lemon grass growing along the back exterior wall of the house (Nana 05/27/10).

Similarly, the Nguyen garden:

. . . provides an abundant source of edibles. . . My mom states that Vietnamese cuisine. . . requires exotic ingredients that cannot be found in local markets, therefore growing them in the garden is the best way to obtain [them]. For instance, different Vietnamese cuisines taste better when paired with different herbs and plants. . . [My mom] does not need to drive to the store to acquire [them]. Instead, she can just go to the back yard (Vanya 03/10/10).

Several families in this study took great pains to acquire, nurture, and grow in their garden, ingredients that they can use in their everyday cooking. The following quote describes how the Gonzales family acquired two culturally significant plants for use in Filipino cuisine:

In our garden we have *calamansi* trees and red chili pepper plants. My mother’s friend came to visit from the Philippines and brought her the seeds to grow the *calamansi* trees as well as the red pepper . . . the *calamansi* is a very distinct citrus fruit special to the Philippines. It is a little sweeter than lemon but more sour than orange [and] is used much more often than either lemon or lime. One dish is *pancit palabok*. This noodle dish is a well-known Filipino dish, . . . that my mother cooks often. It consists of noodle topped with bits of pork, green onion, hard-boiled egg and garnished with lots . . . of *calamansi*. [Also] our family prepares a chili vinegar sauce using our small red chili peppers cutting them slightly and allowing them to ferment in vinegar along with garlic and black pepper. This sauce is a favorite especially during celebrations when used for dipping *lumpia* (fried egg roll) (Freda 05/02/10).

The *calamansi* tree is also important in other Filipino American households, such as in the Flavis family:

Ever since I can remember this fruit has been integrated in every part of our culinary adventure. May it be through mixing the juice with fish sauce for *pancit* (noodles) [or] as a refreshing drink on a summer day—*calamansi* was always in our home. My parents claim for a garden to be called a garden it has to have this fruit in it (Christa 06/21/10).

A few families have created very elaborate vegetable gardens. One example is Mr. Huang. He came to the U.S. from China and over the years has planted an abundant variety of vegetables used in

Chinese cooking, such as Chinese celery, sugar cane, spring onion, Chinese spinach, among others. He also planted a variety of fruit trees, such as date and cherimoya. The Lim family from Indonesia also has nurtured a variety of exotic plants, used in Indonesian cuisine such as lemon grass, turmeric and certain aromatic herbs. The garden of the Bhumiputra family (also from Indonesia) further reveals the desire of immigrant families to create distinctive culture spaces. Prominent in this garden is the plant *kencur* also known as the lesser *galangal*. Mrs. Bhumiputra uses this in various types of Indonesian food such as *nasi goreng* (fried rice) or in *ayam goreng* (fried chicken). In addition, Mrs. Bhumiputra is particularly proud of her banana trees which besides producing bananas, allows her to have plentiful supply of banana leaves, a key element in Indonesian cuisine. She uses the leaf for cooking sticky rice with meat in the middle, or to barbecue meat and chicken or to make desserts, such as *kue lapis* and *kue rangi*.

Other home gardens are not as elaborate, but still contain culture specific ingredients essential in specific cuisines—mint, basil, lemongrass and Vietnamese celery in Vietnamese homes; okra, squash, cilantro, green chilis and mint in Indian households; and tomatoes, mint, basil and pomegranates in Persian gardens. Binita's backyard is an Indo-American kitchen garden:

Enclosed in her back yard is Binita's vegetable garden. She and her husband use a section of their backyard to grow mint, cilantro, tomatoes, okra and squash. The flowers and leaves from the squash plant represent a delicacy in Binita's ethnic cuisine (Field observation 08/06/10).

Several families commented on how much more “authentic” their [ethnic] cuisine tasted when prepared with garden fresh ingredients. It was reminiscent of the taste from “back home.” For one Indo-American family, creating a vegetable garden was prompted by the taste of store bought okra, which, according to the family matriarch, did not taste anything like the okra in India. The fresh taste of homegrown produce was succinctly summarized by an Iranian American when she said, “there is no ingredient more fresh than one you grow yourself.”

Besides providing fresh ingredients for food preparation, home gardens also contain herbs and spices that enable immigrant families to continue to practice various aspects of ethnomedicine. For example, several of the plants in the Nguyen garden were specifically planted because of their medicinal and healing properties. Mrs. Nguyen has a family history of high blood pressure and high cholesterol. She believes that eating Vietnamese celery can lower both levels, so she grows them in her garden enabling her to frequently incorporate them into her cooking as part of preventive medicine. In addition, her garden has several aloe vera plants, the juice of which is applied to the skin for a fresh complexion, and made into a drink to refresh the body. Another example is from the Surabaya family from Indonesia. Mrs. Surabaya planted several watercress plants, which she believes has many health benefits.

For first generation immigrants, kitchen gardens represent a source of pride and joy signifying their success in transferring their cognitive ideas and memories to their new physical home in a tangible way. This allows for cultural continuity with the past and yet anchors them in the present. For the second generation, it enables them to learn about their ethnic heritage through food and cooking. As Freda explained,

The fruits and vegetables we grow have a great connection to Filipino cuisine and as my mother explained it, it is extremely important to never forget your culture. One way of preventing that is to simply cook—as I help my mother these days prepare celebration dishes, I now understand why for so many years she asked me to watch her incorporate our garden ingredients and prepare the difficult dishes (Freda 05/02/10).

5. Gardens as ecological space

As pointed out in the literature, gardens are also containers of memory, enabling immigrants to re-connect with landscapes and ecologies left behind. The fragrance of flowers, the aroma of tree-ripened fruits, the texture of an old knobby tree trunk, the visual aesthetics of a garden layout, all can evoke environmental memories. This environmental nostalgia was evident in several of the home gardens studied.

Many people capture their memories in photos. Capturing time with a simple flash allows people to revisit those events at future dates. However, in my family garden our memories and dreams are expressed through the blooming and explosions of color (Suryaputri 10/13/09).

For immigrants who are forced out of their native countries because of war, socio-political upheavals, religious and political persecution, home gardens can help them remember and embrace landscapes lost. This is described below:

Having a garden in America. . .brings her back to the landscape she left behind. [Because] of war, my mom had to leave Vietnam [for] fear of political persecution, therefore, she misses Vietnam a lot. America can sometimes be overwhelming and the environment is completely different. . . The garden makes her feel more comfortable, secure and in familiar territory (Vanya 03/10/10).

In one particularly poignant example, an elder Persian American lady developed a strong attachment to two pomegranate trees in her neighbor's garden. She would often stop to admire them and lovingly gaze at the many fruits that hung low from their branches. It was a reminder of the land and fruit trees she had left behind in Iran. She was deeply affected when the neighbor cut down one of the trees: “Why didn't you give me the tree? I would have cared for it in my garden. Why did you cut it down?” she said.

Remembering can be a multisensorial experience involving sight, sound, smell, touch and taste. For the Jogkarno family, seeing familiar floral color was important. In front of his house, Mr. Jogkarno has planted little purple asters, which remind him of his old house in Indonesia where purple flowers also bloomed in front (though not the asters that he has here). Seeing the purple flowers makes him feel at home again. For Samira, the yellow lilies in her garden are special:

Living in the United States, our garden is not as big as the one in Iran . . . but . . . I have a section with many bright yellow lilies but it doesn't look like the ones my dad planted [in Iran] because he was a pro when it came to gardening (Samira 05/12/10).

For the Lim family, memory was linked to the fragrance of flowers such as the jasmine. Similarly, in the Filipino American Flavis household, the flower “*dama de noche*” has a special place.

This is my father's favorite. As beautiful as it looks, the real beauty is the scent which is [experienced] only at night and hence the name *dama de noche* [lady of the night] (Christa 06/21/10).

The Flavis family has also tried to grow another flower, the delicately perfumed *sampaguita* (Arabian jasmine), but without success. Like the Flavis family, several Indo-American households have gone to great lengths to grow in their garden the *mogrā* (Arabian jasmine) plant, a flower known for its soft fragrance. Unable to find exactly the same plant, they have sometimes relied on the Hawaiian version, known as “pikake.”

Besides flowers, the scent of fruits such as guavas, papayas and mangos has also been linked to environmental memories.

The natural environment can also remind us of past activities such as the familiar walk to school every day past a mango grove,

buying a favorite seasonal fruit from the street vendor, playing games in the garden with siblings and friends. For example, the Bhumiputra family has planted three types of guava trees in their backyard, not just for the fruit, texture, scent and taste but also for the memories associated with the trees such as the hide-and-go-seek games Mrs. Bhumiputra played with her siblings behind the many guava trees in their childhood garden. In the Vietnamese American Truong garden, Mr. Truong has planted a tropical palm-like tree. This tree, according to his daughter, takes her father back to his childhood in Vietnam, when he and his brother would playfully climb the coconut trees and knock down the coconuts from the treetops.

Gardens give immigrants the opportunity to re-create the natural environment left behind. To be able to plant, nurture and see small saplings grow into mature trees, to once again see the colors and experience the smells, can bring comfort to the displaced. Farah, an Iranian American, expresses her nostalgia in the following quote:

I have a small garden that includes a variety of flowers and fruits like plums, pomegranates, roses and geraniums. The plums remind me of the summer time in Iran. The fresh smell of fruit trees and roses remind me of Iran and my childhood days in the garden (Farah 05/19/10).

When Mrs. Tran (an elderly Vietnamese American) first came to America in 1990 she lived in an apartment. Depressed and lonely, she longed for a garden, to work the soil, to cultivate, to feel the earth, to connect to her rural roots and the natural vegetation of Vietnam. When she moved to her house and could have a garden, she began to feel more secure and content. When everything around her was changed or changing, she finally could control a small segment of her life, her own garden where she could connect once again with the familiar. As a young Vietnamese American poignantly stated, the garden “is a space that allows [my dad] to bring a little piece of Vietnam to our house.”

Home gardens allow the second generation to experience albeit in a limited way the ecology of their parents country of origin, through some of the trees (plums and pomegranates for Iranian families; bananas in Vietnamese homes); and flowers (jasmine in Indonesian homes and *mogrā* in Indian homes).

I was born here, so I think the garden sort of symbolized Vietnam because of the fruit trees. I would have no idea of how you plant [them]—without the garden (Nghia 04/30/10).

But it is not all about nostalgia and reproducing the ecology of the past. It is also about building new environmental connections. Suryaputri's family has planted cactus to symbolize their connection to California, others have incorporated California poppies, lavender and rosemary that grow well in the Mediterranean climate as well as certain drought resistant plants. In Gokul's garden, the Indian *mogrā* sits in close proximity to a variety of California succulents.

Finally, the garden can also be used to teach environmental consciousness. 80-year-old Mrs. Tran still recycles old grass, weeds, vegetable peels in a section of the garden. She then uses this to fertilize the soil. Little is wasted. This ecofriendly approach has been passed down to her daughter (Mrs. Nguyen) who also diligently uses natural fertilizers to make her garden bloom. Through the garden, therefore, children can be taught the ethics of care; one Indo American female recalled how her own grandmother would gently admonish her (when she was a child) if she plucked a flower or shook the branches of a tree at night. “Flowers plants and trees too rest; so honor their time of rest,” she would say. This story is repeated in her household to inculcate sensitivity towards nature. Mrs. Tran too teaches by example:

She takes care of the garden like it is another living being. In the winter, she makes sure that the plants are protected from the cold. She does this by placing cardboard boxes over the herbs. . . She is very proud of her garden and is very happy when she sees her plants and flowers growing strong (Vanya 07/20/10).

6. Gardens as family memorial space

Gardens are reminders of family relationships and of family continuity. They can become expressions of love and gratitude, a place to remember and honor both living and non-living family members. In the Bhumiputra family garden two trees in particular, symbolize filial love and gratitude. Mrs. Bhumiputra has planted a white peach tree, her mother's favorite, to honor her mother. It gives her 80-year-old mother great pleasure to see the peach tree in her daughter's garden; through the tree she feels transported to her own childhood to a different time, place and garden. Next to the peach tree, stands the pear tree dedicated to her father and to the fond memories of the father-daughter relationship. Mrs. Bhumiputra lovingly recalls how her father, after work, would bring her a pear as a gift. Since she was one of ten children, she treasured these interactions as she felt it was her father's special way of showing love to each of his children and how much each child meant to him.

Several of the plantings in Mrs. Tran's garden tell the story of past relationships—the dragon fruit reminds her of her mother, the mint of her father and the pomelos of her grandmother who rewarded her with this fruit whenever she was good. Families also take special care of flowers and trees planted by a close family member. In Victoria's garden, a bush and a vine, planted by her father-in-law who is no more, continue to thrive. When the family moved, they uprooted both and transplanted these in their new garden. Victoria's children, who did not know their grandfather, have come to know him through photographs, stories and his garden legacy. Trees and plants can also help foster intergenerational ties. For several years now, the Gonzales family have been nurturing two *calamansi* trees for their two children to give to them when they have their own homes and gardens.

Other families use/display a specific artifact to remember loved ones and the memories associated with them. Mr. Makhijani wants to place a special outdoor swing in their new garden, in fond remembrance of his mother, the bond they shared, a reminder of happy and sad times of love and of loss.

My grandmother would sit on the swing and my dad [a child then] would lay on her lap and she would sing *bhajans* (Hindu devotional songs) as she rocked him to sleep. On her death bed in 1998, she was drifting in and out of consciousness and my dad was sitting by her side, holding her hand. When conscious, she would sing those same *bhajans* that she had sung to him when he was a child. Those memories are still very strong for my father, as he was very close to his mother. Having the swing in our yard will serve to honor the memory of my grandmother and will give my father some comfort as he still misses her. . . (Sunita 09/01/09).

In Gokul's garden is an intricately carved old wooden swing, a reminder of his childhood spent with grandparents.

The *jhoola* (Indian swing) is almost 100 years old. It was in my grandfather's home. I have many memories of sitting in the swing between my grandfather and his friend. I must have been four years old. . . When my mother asked me if I wanted anything from our ancestral home, I asked for the *jhoola*. So she had it dismantled, packed and sent by sea to me here in America. . .

Now I have it in my garden. Every morning I sit on it for 15–20 minutes. . .

When my grandchildren come I sit with them on the swing (Gokul 06/23/10).

Lastly, the garden helps immigrants build social relationships and facilitates network formations. Families and close friends share seeds, cuttings, gardening techniques, garden experiences (successes and failures), as well as the produce and products of the garden. These can become the focus of visitation, interaction and conversation. Mrs. Tran and her elder friends like to exchange with each other the fruits and herbs they have successfully grown in their garden. At times, this provides the pretext for their meeting. Since she does not drive (nor speak English), she is dependent on her children and grandchildren to take her places. On weekends, she requests one of them to take her to her friends to drop off some of her garden items thus permitting her to meet and have face-to-face interaction with her peers. In addition, she boxes some fruits, vegetables and herbs to give to each of her children. For Mr. Truong, his pride and joy are his *bi dao* (winter melons), which he is able to grow in great abundance. This he often gives to his friends and co-workers. Others rely on family and friends to expand their garden and gardening repertoire. For example, Mrs. Bhumiputra has recently planted a Dragon Fruit tree. The cutting that helped her start this plant came from her sister in Northern California.

7. Concluding discussion

This study of immigrant gardens has several implications for the literature on place attachment as well as micro landscape ecology. Delineated below are four themes.

7.1. Gardens and attachment to place

According to Relph (1976:1), “to be human is to live in a world that is filled with significant places”. This study displays the many strategies immigrants use to personalize and create a garden that is significant to them. In so doing, they express attachment to places both past and present.

Emotional ties to past places is represented in the crafting of their present garden, in the careful selection of flowers and fruits, and the incorporation of remembered sights and smells, colors and fragrances. This supports claims in the literature that past places, their landscape, ecology and experiential feel can influence the creation of new gardens (Bhatti & Church, 2001; Francis, 1995; Thompson, 2005; Winterbottom, 1998; among others). At times locating and procuring special items (or close variants) can be a challenge requiring great persistence and effort. But the immigrant home garden is not merely a place of memory (see also Morgan et al., 2005); it also symbolizes an immigrant’s desire to create new place ties. By tending to the seeds, saplings, plants and trees and watching them thrive in a new home (sometimes under unfamiliar conditions) gives immigrants a sense of belonging and accomplishment. The great effort, time and emotional investment that goes into creating such garden spaces is in itself a testimony to the immigrants’ desire to become rooted in the new land, to engage with and experience the new landscape ecology in a deeply meaningful way.

7.2. Gardens, landscape ecology, and religious place making

This study draws attention to the relationship between religion, nature and the home environment, a topic only minimally researched in the literature (Mazumdar & Mazumdar, 2009a). Gardens became expressions and extensions of the religious life of Buddhists and Hindus (but not of Catholics and Muslims). This

finding can be linked to the overall ethos of these two religious traditions. Unlike Catholicism and Islam, both Hinduism and Buddhism are non-congregational; temple visits are optional with hardly any obligatory mandated requirements for collective prayer. Instead, they emphasize the individual component of religion and spirituality, importance of private prayer and meditation at home, the centrality of the family shrine, the sacredness of nature, the assignment of sacred value to botanical elements and their ritual significance in daily prayer. The requirements and values fostered by some religions can thus have important ramifications for homes and the micro landscape ecology of gardens.

7.3. Gardens and ties to culture and family

Immigrants appropriate their backyards to create distinctive culture spaces. The kitchen garden has functional value in that it provides raw materials needed in cultural cuisine, but it also has symbolic meaning expressed in the desire to maintain identity continuity through ethnic cuisine and ethnomedicine. The garden reveals other symbolic connections as well, such as to immediate family and ancestors. For immigrants from Asian countries in this study, family relationships focus on filial piety obligations, reciprocity, reverence for ancestors, loyalty, and gratitude. Some of these values are also engraved in the physical landscape of the garden, which are used to honor ancestors and family members and express love and gratitude through the planting of particular fruits and trees loved by the parent or grandparent, and through the creation of temporary altars on important anniversaries.

7.4. Gardens and socialization

Gardens are settings for religious, cultural and ecological socialization. Children are taught religious significance of specific botanical elements, their use in daily prayer and association with ancestors, gods and goddesses, and celebrations. Further, by taking time to nurture plants and trees, cook with and consume fresh home grown produce, recycling and re-using garden products such as grass trimmings and vegetable peels, immigrant parents and grandparents teach children valuable lessons in environmental consciousness, sensitivity and caring. Thus, home gardens can also foster an “ecological” or “environmental identity” (Kiesling & Manning, 2010; Thomashow, 1995).

In these ways this paper reveals the immigrants’ view of their home gardens, and confirms and adds to the findings of earlier research. It also surfaces important differences. Unlike Morgan et al. (2005) this Southern California study revealed less expression of ethnic identity in the front yard, and less use of the back yard as a museum but instead more as religious, cultural, ecological space and as landscapes of remembrance. It also is clear that immigrants see small and medium urban and suburban backyards as opportunities to create meaningful gardens. Immigrant home gardens thus, can teach not only about this substantive subarea but also about larger concepts in the literature, such as place attachment, place making, and identity.

7.5. Caveats

Some of the categories presented here are not exclusive as some actions have multiple intentions, several roles can occur simultaneously, and a single plant can be sacred, a memory marker, a family connection, an ingredient provider, or more. Only a small number of quotes from data could be included here due to space constraints. While there are similarities in the visions of gardens, there is also much richness and variety, as this paper illustrates. Based on this research on immigrants it is not possible to comment on whether

these are applicable to others (non-immigrant natives), but it is worth a future research project to find out.

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