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GARDENS AND DWELLING: PEOPLE IN VERNACULAR GARDENS*

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ABSTRACT. Investigations of dooryard gardens, kitchen gardens, home gardens, and house-lot gardens fall unequally into one of three groupings. The first are those that treat the plants in the gardens as biological entities and define a space considered a culturally controlled biological community or habitat. The second are those that consider plants cultural traits and the space defined by their positions a setting for household activities. The third conceives of plants as design elements within a garden or a landscape that frames a house or provides a setting for formal human performances. Recent decades have witnessed a broadening focus in the study of gardens, from spatial characteristics and biological content to social and cultural concerns such as reciprocity networks, contested spaces, and the concept of “dwelling.” *Keywords:* *dwelling spaces, gardens, hybrid landscapes, vernacular experiences.*

All the things surrounding us from our infancy persist forever as something common and trivial to our eyes.

—Johann Wolfgang von Goethe, 1831

Most of the gardens discussed in this special issue of the *Geographical Review* are common, ordinary gardens around a house, or substitutes for them, developed for the production of useful, material goods or of prized nonmaterial values for individual households. These gardens are ordinary household spaces. Two of the articles in this set, however, are on groups of gardens that either are for gardeners who have no space for them around their own dwellings or constitute market gardens that benefit the urban society now encroaching and surrounding them (Baker 2004; Kaldjian 2004). All of the gardens depend on the gardeners for maintenance and are spaces made meaningful by the actions of people during the course of their everyday lives. They are spaces where the “products of a network of social, physical and

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symbolic orderings of private living space” are collected or embodied. Above all, they are “scenes of intense personalization” (Longstaffe-Gowan 1993, 48).

These gardens are vernacular, as opposed to high-style, gardens (Jackson 1993). “Custom rules, things are the way they are,” Peirce Lewis (1993, 109) wrote, “because that is the way they were.” According to Todd Longstaffe-Gowan (1993, 48), “All vernacular creations, whether gardens or buildings, are constituents, and therefore, products of our everyday life and world; they are artifacts of the cultural landscape formed through cultivation and imposed order, the product of practice, not theory.” The vernacular garden is one from which the owner derives most pleasure by actually working in it and making changes in it, rather than from looking at it or passing through it.

Most dooryard gardens studied are those of settled people, although swidden agriculturists have gardens, which they move when they relocate their settlement. As a consequence, the gardens of swidden populations tend to be newly established, and the plant assemblage includes young trees and shrubs (Zent 1992, 372). The older, woody species that are left behind tend to accumulate in fallow and secondary vegetation (Denevan and Padoch 1988). These species may be used and harvested but do not constitute a garden, although fallow forests may later be a source for plant materials relocated to a garden (Fu and others 2003, 390).

Once people are sedentary, however, gardens become part of their agricultural system. As David Harris states in his foreword to the trilogy of comprehensive works on the cultivated landscapes of the native New World, “Those of us who have worked extensively in the tropics, whether in the New World or the Old World, know that house gardens are a widespread and important element in the domestic economy of rural communities, but because they are relatively inconspicuous and less visually impressive than field systems, they tend to be overlooked and their contribution to subsistence underrated” (Whitmore and Turner 2001, vii–viii). “Gardens, including those dominated by arboreal species, were ubiquitous throughout Middle America” (Whitmore and Turner 2001, 103). In another volume of the trilogy William Denevan (2001, 70) points out that “house gardens are common in Amazonia but are not as large or as well studied as in the Caribbean and Middle America,” although several of his students have been working assiduously to remedy that situation. William Doolittle (2000, 117), in looking at evidence of native gardens in North America from prehistory, archival sources, and the ethnographic record, emphasizes that “gardens are widespread and important. Gardening was an integral subsistence activity where people resided permanently.” No comparable, large compilations of historical studies across South Asia, Southeast Asia, and southern China exist, but recent works indicate that gardens do exist and are there to be examined (Terra 1954; Jose and Shanmugaratnam 1993; Kumar, George, and Chinnamani 1994; Kehlenbech and Maass 2005). The same is true for Africa (Tchatat, Puig, and Fabre 1996; Chweya and Eyzaguirre 1999; High and Shackleton 2000).

Most studies of house gardens have been carried out by investigators of folk communities (for example, Johnson 1972; Linares de Sapir 1976; Peeters 1976; Fredrich

1978). Recent studies have focused on contemporary semirural and urban societies or those in contact with them (Etiffier-Chalono 1985; Keys 1999; WinklerPrins 2002; Christie 2003). Gardens in these settings are small in area and limited by conventional or legally set borders. Their boundaries are artificial and permeable. The garden may be well bounded or only indifferently separated from a neighboring garden or an adjacent agricultural plot or field, but the neighborhood knows where the boundaries are. The garden is subject to adaptation, change, and even abandonment over time, yet some gardens have been in the same family for several generations.

In addition to gardens adjacent to houses, there are community gardens—sometimes located near apartments or housing projects—that also serve household production and socialization needs. These gardens may develop in urban areas when land surrounding housing projects is insufficient, or perceived to be insufficient, for the gardening activities of those who lease them. Frequently called “allotments,” they are usually encouraged by governments, with local officials endeavoring to improve the economic and nutritional status of the gardeners (Crouch and Ward 1988), and are administratively ordained, even though the gardeners decide what is planted (Dubost 1984; Warner 1987).

Since colonial times—or earlier, in other parts of the world—traditional gardening in the United States has not been limited to a plot of earth (Hunt and Wolschke-Bulmahn 1993). People have had window boxes and windowsill collections of pots, as well as plants on balconies, and they have been encouraged by gardening books and seed catalogues (Randolph 1861; Rand 1872; La Mance 1892). Similarly, in present-day China new developments in gardening illustrate how the change in political ideologies has depoliticized the sphere of the home, so that people now have the right to grow plants in their domestic spaces (Wang 1995). Chinese cultivators regard making a balcony garden as “borrowing from heaven” (Bruins n.d.); given that this space extends beyond the footprint of the house, it is “borrowed space.” When people construct their gardens so that neighboring gardens can be glimpsed from them, they may turn an ordinary garden into a scenic view (Ji (1631) 1988), another kind of borrowed space.

The words “garden” and “yard,” which in many other places are used interchangeably, have distinct meanings in the southern United States. The term “garden” is used for areas of vegetables growing in rows, whereas the term “yard” applies to areas where flowers are grown (Wilhelm 1975, 73–74). Another part of the yard may be the place for household chores and pens for chickens and hogs. The yard is also a place for leisure and conversation (Westmacott 1993, 77). These observations have led some scholars to use the term “house lot” or “house-lot garden” whenever the emphasis is not on the plant component (Greenberg 1996, 193).

As Lewis (1993, 107) pointed out, the garden is a work of culture. It is a human construct that has intrinsic value for the gardener and can be used as a diagnostic artifact. Gardens (and fields) may be thought of as a “world as opposed to environment,” as Yi-Fu Tuan (1965, 6) argued years ago in a different context.

People tell us they like to be in the garden. It gives them a sense of calm. Turning the soil, dirtying their hands, and making an early-morning inspection is physically soothing to them. The garden is also a place to which people retreat when they are upset in order to regain their equilibrium. Being in a garden makes them happy and contributes to their mental health (Bliatout 1986). Over and over, in anecdotal accounts people tell investigators that the experience of being in a garden contributes to a balanced life. Research also indicates that any place in which people garden, be it associated with the house or the community garden, is a place of social significance.

Gardens are created and cultivated by the people who dwell in them. "We attain to dwelling, so it seems, only by means of building" (Heidegger 1971, 145). Dwelling happens when one opens up one's self to the "fourfold" of earth, sky, divinities, and other mortals (pp. 149–150). The first two categories are today collapsed into the single category of nature. "Dwelling" is a state in which one recognizes and responds to interactions with self, others, and the deity because one grasps the ultimate unity of these three. The needs of human dwelling are achieved when they are allowed to arise spontaneously out of the requirements and concerns of particular people and landscapes (adapted from Seamon 1993, 3). The beauty of a garden is that it may bring a person as close to this balance, unity, and responsiveness as a human ever comes.¹

This special issue of the *Geographical Review* presents the results of field investigations by geographers examining people and gardens and the meanings associated with them. Some of the articles originated in papers presented at the 2003 Association of American Geographers annual meeting in New Orleans. The focus of the special illustrated session was the intersection of space, time, and social function in the domestic garden or yard. It aimed to explore how everyday activities of ordinary people transform spaces through their use and to examine the cultural construction and experience of nature through a close look at the uses of gardens and the elements that provide clues to understanding culturally specific relationships with the natural environment: aesthetics, infrastructure, agriculture, horticulture, and food preparation in this particular domestic space. Gardens are significant because their users tell us so. The articles in this collection are thus less about the gardens per se than about the people living in the gardens they have created.

PREVIOUS RESEARCH

I was introduced to garden research through an encounter with a special landscape in Martinique, French West Indies in 1962, when I was mapping the then-current vegetation—planted and natural—for a historical study of human impact on the plant cover (Kimber 1988). The gentle hill country of south-central Martinique was dominated by gardens surrounding rural dwellings in such densities that the planted gardens and the spontaneously vegetated areas between them could not be distinguished at the mapping scale. Borrowing a term from Edgar Anderson's essays on garden plots in Central America (1948, 1950, 1954), I labeled this landscape category

“dooryard gardens” and defined it as a vegetation type in which the structure and composition of the vegetation are heterogeneous and multilayered, with many shrub and tree species among the herbaceous species, including weeds that gardeners use in a variety of ways (Kimber 1988, 264–268).

Interest in this type of vegetation for itself followed and resulted in the detailed description of three rural and semirural gardens (Kimber 1966). My conclusions were that these gardens were managed artifacts in which gardeners planted particular species but also took advantage of the species that had spontaneously germinated within the space. I approached the gardens as any student of the botanist–plant geographer Jonathan Sauer, the plant ecologist John Curtis, and the ethnobotanist Hugh Iltis might: The agronomic character of the gardens was not emphasized, it was implicit.

My later work in Puerto Rico led to a typology of garden designs, including one style that seemed conspicuously patterned after the gardens of suburbia, especially the backyards of North America that some of the gardeners had recently left. Even though the focus was more on the biophysical aspects of the gardens and I found that diversity was based on local ecological conditions, it was clear that the gardeners’ decisions about what to plant were the ultimate cause of diversity. I could not help noticing that the gardens satisfied certain social purposes as places where family and neighbors gathered, where certain household functions took place, and where gardeners could satisfy their love of beauty. They were used to establish status within the community. Children used them as playgrounds and learned how life was to be lived.

People may bring plants into gardens intentionally or unintentionally. If the gardens are close together, short-distance dispersal or informal human exchanges may add species to the flora. Biological diversity within a garden may be limited by its size or by the accessibility of the garden space to colonizing plants nearby. Or the intentional planting of exotics by the gardener may lead to species packing: Sometimes the garden has considerably more biomass than does the local spontaneous vegetation. Gardeners share plants by swapping them with other gardeners and import plant materials from other gardeners, from nurseries, and from the wild. They import and raise some domestic animals and imperfectly control the animals and birds that drift through the garden space (Linares de Sapir 1976, 331).

I focused on vegetational geometry, species composition, and useful plants, but I also noticed behaviors and attitudes that could be interpreted as leading to domestication or protodomestication (Kimber 1978, 4). I generally left alone the rich ground for cultural studies, particularly the ideas associated with “dwelling.” Not until the late 1990s did I find Kenneth Helphand’s assertion, “The garden is a ripe site for investigation as cultural studies engage the complexities and ambiguities of meaning, the intersection of ideology and creative activity, and questions of representation, through an expanded awareness of what constitutes evidence for intellectual inquiry” (1999, 138). This seemed a good enough justification for engaging in studies of garden spaces dominated by questions about their cultural geography.

TABLE I—THE MAIN STRANDS OF INQUIRY IN STUDIES OF HOME GARDENS

BIOLOGICAL AND PHYSICAL: PLANTS AS BIOLOGICAL ENTITIES	CULTURAL AND SOCIAL: PLANTS AS CULTURE TRAITS	LANDSCAPE DESIGN AND ART HISTORY: PLANTS AS DESIGN ELEMENTS
Garden floristics and structure Native/non-native	Gardens and their species complexes as revealing ethnicity	Gardens as spaces to view and pass through
Gardens as agroecosystems Small farming systems Sustainable agriculture Poverty reduction	Gardens as household spaces Spaces for washing, cooking, and social activities	Gardens as high-style tradition Morphology by design Meaning of design
Gardens as substitutes for natural communities, as habitats for wild fauna and those passing through it	Gardens as sites of economic activities Contributions to home income Sites of cultural reproduction Reciprocity networks	Appropriate social behaviors in gardens
Gardens as places to conduct conservation-biology studies	Gardens as sites for political action Negotiated, contested space Political activity / citizenship	Temple gardens Ritual behaviors in gardens
Gardens as sites for hybridiza- tion Exchanges of genetic informa- tion New varieties	Gardens as environmental engagement Hybrid space	
	Gardens as migrants' spaces Maintenance of migrants' cultural identity	

I had spent more than twenty years in garden studies and was looking for a new way to approach their examination and analysis.

The collection of garden field studies between these covers continues geographers' efforts to understand the significance of gardens. Surveying the rich literature on gardens, three strands of inquiry stand out (Table I), two of which can be traced back to the early investigators Edgar Anderson (1950) and Fred Simoons (1965).² The first strand is concerned with plants as biological and agronomic entities. The plants of the garden constitute a flora that represents an arranged variant of a biological community. Home-garden studies of this kind may be the most numerous in the literature. The second strand can be thought of as the social or cultural approach, in which garden plants function as culture traits. Investigators began to explore social issues of gendered space, cultural reproduction, ethnicity maintenance, and contested political space (Rocheleau, Thomas-Slayter, and Wangari 1996;

Jones, Nast, and Robert 1997). The garden serves as a stage for householders to act in, and plants are markers of a comfortable cultural history. Sometimes plants play only a small role in those discussions—or none at all. Some investigators even assert that the nonmaterial elements of culture in the garden are the most significant elements (Keys 1999; Christie 2004). “Ethnographic literature on symbolic and cosmological significance of home gardens is sparse,” according to the anthropologist Serena Heckler (2004, 204), but today scholars are paying increasing attention to this dimension.

The two concepts that represent major directions in garden studies—the biological and the cultural—exemplify how intertwined the analyses are. From each strand come connections to the other that braid the two together, and the mutual influences are so pervasive that it is often difficult to separate them. Researchers concerned with biology are nonetheless aware that the garden is a construct made by people, but their focus is on the plants as species. Researchers concerned with culture are still fully aware that the plants are living species, but for analytical purposes they are cultural articles, and the spaces created by the pattern of house and plants are stages on which householders act out their everyday lives.

A third strand, barely noticed and less influential than the other two, is the inquiry into the contribution of landscape design and art history to the creation of gardens.³ In these works the garden complex is the focus, and the plants are considered design elements. Here the codified behaviors of people in these gardens is of particular interest (Conan 1999), as is the symbolic role of the individual plant species. The three approaches to the study of gardens differ because each views the garden as a space for a different kind of interaction: between humans and the natural world, specifically the organic processes of plants and plant communities; between humans, specifically the social exchanges that occur in the garden as symbolic space as it creates expectations and “sets the tone” for what will happen in it (in this context humans are oriented toward and interact with each other rather than with the symbols); and between human subjects and the meaningful spectacle or symbol of the garden. In the first interaction the garden produces material goods, food, fiber, and medicine. In the second, it is a setting within which certain social exchanges can be realized (it “works” to bring people together in preparing foods for the local fiesta, by providing secluded trysting places for lovers, and so forth). In the third, it leads to a “state of consciousness, or mental state” (aesthetic pleasure, delight, tranquility, the sublime, communion with a pantheistic Nature). The historical course of the investigations in each strand of inquiry depends partly on changing philosophies and partly on available methodologies.

Cultural geography has moved from the first type of relationship to emphasis on the second and third types, largely coincident with the movement toward postmodernistic thought in the 1970s, 1980s, and early 1990s (Duncan 1996, 430–437). For example, the first strand, which examines the mature house garden as a locus for conservation-biology issues, has depended on the development of a strong conservation ethic among biogeographers (Parker and others 1993). Censuses, in-

interviews, and participant observation have been used from the beginning, whereas regression analysis (Coomes and Ban 2004, 424) and nonmetric, multidimensional scaling (Heckler 2004, 211) of home-garden composition have been used only recently. In the second strand, old methodologies such as participant observation and client mapping are used, but the data and information are analyzed within the framework of newer conceptualizations. For instance, Eric Keys (1999) and Maria Elisa Christie (2003, 2004) use feminist political ecology (Rocheleau, Thomas-Slayter, and Wangari 1996) as a framework for looking at gardens as sites of gendered knowledge. In the third strand, the anthropologists Philippe Descola (1994) and Catherine Benoit (1998, 1999) identified many ritual behaviors in a yard or house-lot space. Alternatively, investigating how immigrants developed gardens to satisfy Hindu scriptural requirements illustrates how the designing of a garden becomes an act of faith (Prorok and Kimber 1997). As more geographers interested in gardens engage with this literature more contributions will be related to these issues.

GARDEN PLANTS AS BIOLOGICAL ENTITIES

Investigators who concentrate on garden plants as biological entities recognized early on that these assemblages had complex structures and could be analyzed for their floristics. Edgar Anderson (1950, 1954) wrote the first articles—on the flora of Guatemalan and Honduran gardens—that significantly influenced American geographers. He described the multiple species, mixed up in several layers of vegetation, that constituted an agricultural garden quite unlike what North American researchers were accustomed to. Other garden studies developed these ideas. John Brierley (1976, 1985) portrayed kitchen gardens in Grenada. He concentrated on their floral richness and pointed out how important they were in supplementing the diet of the gardeners and their families. He also recognized the structural characteristics of the gardens and noted that the taller trees and shrubs protected the soil and provided canopy shade for tender plants. As agroecosystems the gardens were part of a total food-production system (Brierley 1976, 1985, 1991). Brierley's publications reached agronomists and anthropologists who were interested in the earliest work on small-farming systems (Stavrakis 1978; Harwood 1979; Norman 1984). About the same time, Theo Hills and Stanley Iton (1983) wrote about the "food forest," pointing out the large number of useful plants found in places where there had been home gardens. In their examination of subsistence cultivation the anthropologist Ruth Berleant-Schiller and the geographer Lydia Pulsipher (1986) emphasized how important gardens were to the whole food system. These studies suggested the validity of local Caribbean farmers' traditional agricultural knowledge, and sustainable-agriculture investigators recognized the role that house gardens or kitchen gardens could play in the sustainable-agriculture programs for the islands.

Since 1980 the agronomic importance of these gardens has been underlined by those interested in how gardens can ameliorate the lives of the poor. Influential investigators (for example, Sommers 1982; Landauer and Brazil 1990) have emphasized the sustainable character of small-farming systems. The concept continues to

be an important component in ethnogarden studies by geographers such as Martha Works (1990a, 1990b), whose research on gardens in Moyabamba, Peru was among the first of a flood of geographical studies of the Amazon. She introduced soils data into her investigation, giving ecological depth to her analysis. William Denevan (1995, 2001) worked steadily with his students in the Amazon Basin. Oliver Coomes (1995, 1998) began working in the upper Amazon region of Peru in the early 1990s, developing the floristic analysis of these gardens. Antoinette WinklerPrins (1997) reported on soil knowledge among the Caboclos—longtime, mixed-race residents of Amazonia—of Santarém, Brazil and showed how that information influences decision making in their garden activities. She was able to show that the high agrodiversity in home gardens is partly a function of the accumulations of plants from lowland and upland farmed land and the free movement of kinfolk between households (WinklerPrins 2002).⁴ Nigel Smith (1996) looked to home gardens as a place to introduce agroforestry in the Amazon. Oliver Coomes and Natalie Ban (2004, 429) looked at what controlled variation in garden composition and plant-species richness in home gardens and found several factors of importance: access to planting material, household economic features, and garden age. Like WinklerPrins's findings farther down the Amazon River, kinship affiliations strongly relate to home-garden agrodiversity. Knowledge gaps in the Amazon Basin are being filled.

Interest in the structural characteristics of gardens increased in the second half of the 1990s. John Vandermeer and Ivette Perfecto (1997) examined the biotic composition of selected coffee plantations and found that they were a valuable habitat for wild bird and animal species. Where the natural vegetation has been removed, these ecosystems may be the only habitat available for wild fauna, thus providing a true conservation resource (Perfecto and others 1996). Michael Steinberg (1998, 1150) suggested that gardens are a good landscape for conservation-biology studies, arguing that “the kitchen garden . . . provides important habitat for Neotropical avifauna.” He further reported that, in Belize Mopan Maya villages, the kitchen garden may be the “only forest” with structural complexity that remains (p. 1151). Further investigations in fundamental biological processes have begun (Cleveland, Soleri, and Smith 1994). Laura Rival (1998) looked at genetic information flows within and between gardens and the development of subspecies in gardens. Some geographers are beginning to unravel the activities by which people influence genetic modifications in plants, making their analyses more sophisticated than those in earlier studies.

GARDEN PLANTS AS CULTURE TRAITS

The second strand of research has to do with the spaces defined by the plants. Simoons (1965) examined gardens in northern and southern Ethiopia and discovered that they differed in plant mix. Only one cultural group used banana (*Ensete ventricosum*) in their gardens; it was a form of cultural marker. House-lot gardens are used for many household cultural reproductive activities, including celebrations such as marriages, baptisms, and girls' coming-of-age celebrations. Studies of

the various kinds of behaviors by people in gardens are shown in Table I. Heckler finds that home gardens are part of the gardeners' dwelling space, a "significant component of a symbolically structured and socially experienced pattern of settlement space" (2004, 206–207; see also Greenberg 1996, 2003; Corlett 1999; Keys 1999; Christie 2003). It is where some of the household chores like washing (Kimber 1966, 118) and cooking (Farb and Armelagos 1980, 183) take place. Numerous investigators note the socializing that goes on in gardens. The house lot is a space where children play (Villeminot 1958, 15). House-yard compounds, so common in Montserrat, are places where adolescent boys are responsible for looking after babies and small children (Pulsipher 1993, 61–62). As Tim Ingold (2000, 186) argues, homes (and gardens) evolve and take form as people live in them, reflecting the life histories of their residents. Geographers are finding a rich research field in these investigations.

Cuisine studies are a logical extension of medicinal and food-preparation studies (Corlett and others 2002). Ethnic cuisine may be the impetus for the planting of condiments (Agelet, Bonet, and Vallés 2000, 298). Laurie Greenberg regards as the most important finding of her work the discovery that immigrant house lots are a symbol of Yucatecan ethnicity (1996, 234). This is why the conservation of varieties of plant species is ethnically important.

Other researchers have looked at the garden as a place where one can learn to come to terms with a foreign environment (Powell 1976; Bonyhady 2000). Narratives of cultural identity can be read in the gardens. Changes in them may reflect the acculturation that immigrant groups have undergone. As wage labor becomes more important to the household, less labor may be available for gardening, leading to changes in gardens (Barrera 1980, 188). The garden is an immigrant's narrative. The changes in lifeways associated with migration threaten the immigrants. Retaining some of the old lifeways helps maintain their cultural identities in the new place. Alternatively, gardens are the people-plant expression of the experience of migration (Armstrong 1999). Lauren Baker (2002, 2004) and others in Toronto examine the importance of gardening to elderly immigrants both economically and socially. Other investigators looking at Southeast Asian immigrants—Vietnamese and Hmong—in America indicate that gardening plays an important role in maintaining immigrant identities and mental health, especially among the elderly (Airriess and Clawson 1994, 19–20; Baker 2002, 22–23; Corlett, Dean, and Grivetti 2003, 367; Armstrong 2004, 243). To obtain ingredients for traditional cuisine, to maintain cultural inheritance, and to preserve embodied knowledge and reciprocity networks, house-lot gardens are "places where key environmental engagements occur for that majority of Australians who live in cities and suburbs" (Head, Muir, and Hampel 2004, 327). Christie (2004) emphasizes the role of house-lot gardens to be "country" rather than "urban" when expanding cities start to encroach on rural dwellers in central Mexico.

Issues of cultural reproduction and reciprocity networks in gendered space have also been fruitful topics (Rocheleau, Thomas-Slater, and Wangari 1996; Jones, Nash,

and Robert 1997). The home garden is where cultural learning is passed from one generation to the next (Thomasson 1992, 1994; Pulsipher 1993; Keys 1999). Social networks are critical to the exchange of plant material (WinklerPrins 1999, 2002; Lerch 2000; Ban and Coomes 2004) and for social learning or cultural reproduction (Christie 2003, 386). The economic value of these gardens is important because they contribute vegetables, eggs, and meat for the family and sometimes for sale. The labor of women in generating income from the sale of homegrown products is real and contributes to the household's quality of life.

Migrant neighborhoods also demonstrate that gardens, particularly community gardens, can be the site of political action (Airriess and Clawson 1994; Baker 2002). Gardens can become contested spaces when derelict neighborhoods have been taken over by gardeners and the city or developers wish to take them back (Schmelzkopf 1995). A particularly fine article was recently published about gardens as fruitful places in which to examine local political action (Smith and Kurtz 2003). Gardens can be venues where immigrants learn how to negotiate with local political entities (Baker 2004).

In Australia, as in the United States, ethical-conservation debates occur about the use of native plants from the local environment; the Australian debate has a strong element of nationalism which makes that discussion different and interesting (Head 2000; Head, Muir, and Hampel 2004). The question of ecological morality is also broached (Wolschke-Bulmahn 1999; Gruen 2002; King 2003). The range of questions addressed through research on gardens constantly widens.

Immigrant families re-create in their gardens the familiar traditional elements of their homeland (Head 2000; Baker 2002; Christie 2003; Greenberg 2003). Women pass on their knowledge about plant management and use to the younger generation. Children learn of their cultural heritage and how to be an ethnic person in a new land. A large number of studies focus on immigrants entering into garden activities in cities, where they tend to cluster as a poor population with few resources. Older people have difficulty entering the labor market, and they tend to fall back on their agrarian backgrounds and start to farm the open spaces of the city (Corlett, Dean, and Grivetti 2003). Neighbors usually object vociferously when people raise chickens and pigs in urban settings, as they do when the city begins to encroach into rural settlements. However, these gardens contribute to self-esteem and help maintain cultural identity. In this way, house-lot gardens provide important mental-health benefits, even for those who immigrated long ago (Vojnovic 2001).

GARDEN PLANTS AS DESIGN ELEMENTS

As some geographers, botanists, and anthropologists were pursuing the scientific study of gardens, and talking with one another, other scholars of elite gardens and landscape aesthetics began to examine vernacular gardens (Table I). Art historians (Coffin 1960), landscape architects (Shepherd and Jellicoe 1925), garden historians (MacDougall 1987; Coffin 1999; Hunt 1999), and environmental historians were developing a new research discipline in the history of landscape architecture and

landscape design. The focus moved from designing high-style gardens to the meaning of gardens (Hunt 1999, 78). Today this is a developing field of study in which sociologists (Conan 1993, 1999, 2003a, 2003b) and garden historians (Wolschke-Bulmahn 1999) have contributed to the discussions, largely in Europe but also in America and Australia. Some of the ideas derived from these scholars' analyses may suggest interesting research directions for geographers studying home gardens.

It is not surprising that, since 1980, investigators have taken increasingly more divergent approaches to garden studies. Researchers have raised questions about the gardeners in their gardens, their implicit and explicit objectives, and the accidental results of their activities, with a focus on issues other than the production of useful plants, garden designs, and management decisions. One very important consideration of the garden is the role of ritual behavior in gardens (Benoît 2000, forthcoming; Baker 2002) and what it tells us about general human behavior (Descola 1994; Conan 1999). Investigators are asking about the meanings of the spaces created by the position of plantings, the location of particular plants with respect to the house, the road, and the boundaries (Boglár 1971; Benoît 1999), as well as the behaviors of the people who cultivate, visit, and pass through the garden spaces (Benoît 2000, forthcoming). In a study of Hindu temple gardens in Trinidad, the design of the gardens and the use of plants that represent certain deities in the Hindu pantheon were examined (Prorok and Kimber 1997).⁵ These plants are used in Hindu rituals of worship and in flower chains worn by celebrants. One plant, holy basil (*Ocimum sanctum* or *O. tenuiflorum* L.), is actually considered a goddess. As the temple matures and acquires more images of the gods, the garden may be thought of as being for the gods as well as for the people. On the whole, however, fewer investigations address symbolism and customs, including strategies for the domestication of place. Christie (2003, 126) reports that in one Mexican town the water from washing the clothes of the Baby Jesus figure is scattered about the house-lot garden, just as water used to boil maize is distributed as a pious gesture. Are there other such rituals? Many of them undoubtedly exist but have so far been overlooked because habitual behavior has not been considered worthy of comment.

THIS COLLECTION

The articles collected in this issue address a few of the multiple uses and meanings of domestic gardens and yards. The authors, all of whom are geographers, bring different cultural perspectives, intellectual resources, and methodologies to their investigations. Although by no means comprehensive, the collection illustrates the diversity of objectives and methodology in garden investigations.

Paul Kaldjian investigates a different kind of community garden from Baker in his study of market gardens in Istanbul that used to provide the city's neighborhoods with fresh vegetables and whose origin dates back to the Byzantine period. Since World War II, rapid urbanization has placed garden spaces within the city under great pressure. Many of them have been created and cultivated on vacant land by farmers who have a keen sense of the market for their produce but lack

secure tenure to their basic resource: land. Their presence is at best tolerated by governmental institutions, which often treat gardens and gardeners either with indifference or as a primitive blemish on the face of the modern city. Yet some of the gardens have survived as specialized, high-value vegetable-production enterprises.

Lauren Baker explores the significance of modern community gardens in Toronto funded by local nongovernmental organizations (NGOs) under the concept of “food citizenship.” Case studies of Chinese, African, and Sri Lankan immigrants to Toronto who are learning to use the political system demonstrate that gardens are a social investment as well as a material one.

Lesley Head, Pat Muir, and Eva Hampel provide us with a view of how Macedonian, Vietnamese, and British immigrants, as well as first-generation residents, transform the landscape of their backyard in Australia. The authors find that the backyard is a hybrid space that evolves over time and provides a useful place in which to observe recent migrants in the process of becoming Australians. They stress the gardeners’ intense environmental engagements, their re-creation of past landscapes, and their efforts to retain horticultural traditions from their homeland.

Natalie Ban and Oliver Coomes detail the processes by which gardeners maintain agrodiversity in their home gardens in the Peruvian Amazon. Extensive interviews about plant-material flows reveal the sources of plant materials and the species variability that exists within gardens and between villages.

Informed by feminist geographical thought and concerned with questioning more traditional methodological approaches to the production of knowledge (McDowell 1992), Maria Elisa Christie creatively studies the house-lot garden in three small towns in central Mexico. That the boundary between house and garden is sometimes barely distinguishable is not a new idea (Engel 1958, 11), but Christie shows convincingly how parts of these house-lot gardens share the kitchen function with the house. This “kitchenspace” is gendered space and a site of cultural reproduction.

William Doolittle’s speculative reconstruction of the beginnings of gardens examines what garden spaces have meant in the sequence of human history and looks at how gardens and the origins of agriculture may be related. His refreshingly different account is both informative and provocative, starting in the hunter-gatherer past and moving to after the development of agriculture, when garden and house spaces became differentiated and the garden became separated from the field.

WHAT LIES AHEAD?

Scholars concerned with plants as biological entities will undoubtedly continue to examine gardens for their floristic and structural characteristics and for the behavior of the gardeners in those spaces. Future studies may be able to decipher not only the steps in the creation of new botanical varieties but also the processes by which new biological species appear. Ban and Coomes’s article shows how the interchange of plant material between gardens and between communities can lead to the en-

richment of the small gene pool of a particular species undergoing the biological processes of domestication in that cultural environment. As researchers document wild plants that were brought into gardens from forest or secondary vegetation, the life cycles of both cultivated plants and volunteers can be observed. It will be increasingly possible to examine the processes that lead to domestication of new species (Casas and others 1996, 2001; High and Shackleton 2000; Carrière 2002). Enough has been learned about the plant-breeding process to gain new understanding of it in traditional house gardens (Zohary 2004).

Medicinal plants have long attracted the attention of investigators, and we need to look at them anew, not only with respect to plants used as medicines but also in terms of the illnesses that the users are attempting to cure or ward off. Further research is needed to determine whether maladies are natural or the result of pollution; how the local pharmacopoeia has evolved over time; whether some plants are being grown now that drew no attention earlier; if some species that formerly were collected from the forest have now become domesticated; and whether cultivation or domestication is the creative, experimental response to new diseases or the initiator of previously unknown diseases.

Introduced technological advances can bring unsuspected consequences, as was found in Saint Vincent (Grossman 1998). It is important to know, as innovations take place and the political ecology evolves, what further changes we can expect to find in home gardens.

Scholars concerned with plants as culture traits will continue to wrestle with the concept of dwelling, working out in greater depth the meanings of peoples' activities in gardens. If we think of "dwelling" as a verb as well as a state of being, geographers can build on the idea and give it more utility by using Giovanna Del Negro and Harris Berger's concept of "kinetic grounding," or "kinetic sculpture," which is another way of speaking of behavior (2001). One can visually recognize the process of dwelling. In this sense, even sitting quietly in a garden can be thought of as "dwelling in the garden." This can also be connected with ritual behavior because, once a behavior is learned and commonplace, we can read the deportment of people in house-lot gardens.

Five of the articles in this special issue contain gardeners' direct quotations and describe the people in the gardens. Words as well as the observed behaviors of people can tell us much about the processes involved in maintaining and transforming house-lot gardens. The words people use often reveal more than the speaker means to say. Both Baker and Head, Muir, and Hampel speak of the garden as a migrant's narrative. We need to explore this further (Armstrong 1999). Garden plants and the spaces they create constitute cultural traits that can be examined to produce a readable narrative.

In spite of all that has been written, the popularity of the term "hybrid space" to refer to gardens needs more analysis (Dawson 1990; Head 2000; Zimmerer 2000; Whatmore 2002). As with any complex artifact, it can be teased apart farther so that we account better for it as hybrid and explore more explicitly the distinctions be-

tween such terms as “hybrid,” and “domesticated,” and “domesticated landscape” (King 2003).

Investigators concerned with plants as design elements can ask what the organized space and the arrangement or design of garden space means to outsiders as well as to gardeners. Furthermore, it is also important to probe deeply into whether a garden in the center of a settlement means something different from a garden on the edge and whether there is a cosmological meaning in the placement of plants within a garden or of the garden within a settlement. Much more can be done with the analysis of ritual and magic. These dimensions need to be interpreted in order to be explained and to suggest their origins (Malinowski 1965; Descola 1986, 1994). We have no conception of why Mexican women sprinkle their clothes-washing water to bless the home, or if bare earth means something in a house-lot garden, or whether the practice of southerners to sweep the bare earth around the house reflects a simple functional desire to create a habitat hostile to snakes or a deeper, more primordial impulse (Westmacott 1993, 100).

Both Baker and Kaldjian refer to the work of NGOs in supporting and encouraging urban gardening. Members of NGO networks tend to communicate among themselves, and the success of NGOs in Toronto and Istanbul may encourage others to develop urban agriculture programs and to support nonhegemonic food production. Food scarcity and urban poverty in the developed world can be attacked with gardening programs. Women in Development programs funded by the U.S. government may direct more effort to stimulating the use and encouragement of house gardens.

Most of the articles in this collection examine cultural and social dimensions of garden studies, although some have a significant biological component. From this set of contributions and the increasing number of articles about gardens in the recent literature,⁶ it seems that geographers mean to go much farther. I welcome it.

NOTES

1. I gratefully acknowledge several useful conversations with my colleague Jonathan M. Smith, during which I have been able to formulate some ideas on dwelling and gardens.

2. It was Carl Sauer who pointed Fred Simoons to the 1950 article by Edgar Anderson, a botanist whom Sauer greatly respected and often quoted. However, Sauer never mapped a garden (Gade 1999, 187).

3. The landscape-gardening group at Dumbarton Oaks in Washington, D.C. has contributed much through the series of colloquia it has conducted for more than twenty years. The colloquia have resulted in valuable publications of use to geographers (Hunt and Wolschke-Bulmahn 1993; Conan 1999). As part of the bicentennial celebration of the founding of the Saint Vincent Botanical Gardens in the Caribbean, for example, a symposium was held there in 1992. Geographers, environmental historians, and botanists came together to examine the role of botanical gardens in energizing the local gardening public and enriching home gardens (Anderson, Grove, and Hiebert forthcoming).

4. “Agrodiversity” is meant to include not only crop plants but also animal species on the farm, including fish. Although some agronomists and sustainable agriculturists use it interchangeably with “agrodiversity,” “crop diversity” is usually used when one is speaking about varieties of plants used in a farming system. “Biodiversity” refers to the species richness of an ecosystem (Brookfield, Parsons,

and Brookfield 2003). Collected plants deliberately brought into a garden from the wild, and wild plants that come into the garden by natural dispersal ("volunteers"), can be cultivated if they are nurtured or cared for by the gardener. Both are wild plants in cultivation.

5. Since Vedic times in India several thousand years ago, belief in the supernatural qualities of plant life has been important in the Hindu tradition. Some species are vested with the power of the gods in and of themselves, whereas others have an affinity with particular deities. Given the close association of the supernatural with the natural world, one would expect to find those highly valued plants at worship sites (Basham 1954, 322).

6. Most of my citations are to work in Latin America, whose literature I know best. Those knowledgeable about another part of the world can make their selections from that literature. A future step would be a worldwide compilation of garden literature.

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