CHICAGO'S BOTANIC GARDEN: TRANSLATING HORTICULTURE INTO COMMUNITY ACTION

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(1941-2010)
and
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(1937-2018)

Abstract

In 1972 when the Chicago Botanic Garden opened to the public, it introduced the nation's "second city" to its new botanic garden. Just one of a proliferation of new museums in the second half of the twentieth century, the botanic garden would become a national leader of in community work as museums and public gardens focused on local community engagement. From its inception, CBG aspired to join the most well-established botanic gardens in the United States. This dissertation documents the financial, social, and personal influences that shaped programs that were innovative and effective.

As the Chicago Botanic Garden developed, its leaders strove to meet the tripartite goals of the field—scientific inquiry, education, and landscape cultivation. They proved to be particularly successful in the area of education and, specifically, community horticulture. Encompassing programs like horticultural therapy, community gardening, and environmental and science education in local schools, community horticulture programs became centers of expertise at the garden. Given CBG's origin in the Chicago Horticultural Society, staff and board members at the botanic garden already had a vested interest in ongoing programs in the field, and this led them to concentrate resources there, often at the expense of research development. Dedicated leadership at the executive level succeeded in creating a striking physical landscape, even as they balanced the goal of reaching central areas of the city of Chicago. The public, private foundations, and governmental funders demanded increased relevance and accountability. As a suburban garden funded in large part by urban tax revenue and a young museum without an established scientific reputation or broad philanthropic base, garden leaders and staff

worked hard to meet sponsors' expectations. Ultimately, CBG did provide an impressive number of widely recognized programs by the end of the century. In significant ways its community horticulture accomplishments relied on the expertise of long-tenured employees who built an environmentally just community infrastructure through personal relationships and strategic funding strategies.

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List of Abbreviations

BBG	Brooklyn Botanic Garden Archives, Brooklyn Botanic Garden, Brooklyn, New York.
BGU	Bronx Green-Up Archives, New York Botanical Garden, New York, New York.
CHM	Chicago History Museum, Chicago, Illinois.
CHS	Chicago Horticultural Society Archives, Chicago Botanic Garden, Glencoe, Illinois.
GCA	Garden Club of America National Archives, New York, New York.
JD	Jamie Douglass Papers, as given to Reba Luiken by Jamie Douglass.
JV	Jim Vear Portfolio, as shown to Reba Luiken by Jim Vear, Glenview, Illinois.
KHS	Kenilworth Historical Society, Kenilworth, Illinois.
NYBG	Mertz Library Archives, New York Botanical Garden, New York, New York.
RS	Rebecca Severson Papers, as given to Reba Luiken by Rebecca Severson.

Introduction

This morning, I looked up 6212 South Woodlawn, Chicago, Illinois on Google Maps.[1] Zooming into streetview, the scene I saw was a majestic sunrise over a grassy meadow, snapped in October 2018. The neighboring trees were starting to turn from green to orange. Ultimately, though, the image rang somber because I did not find either of the things I anticipated. The site had been a community garden in Chicago, started in 1990 and re-started in 1996. Like many community gardens in Chicago, it did not persist, and there were multiple explanations. However, in this case, redevelopment, the other outcome I had anticipated, did not happen either. In fact, the block remained more vacant than occupied—more than half of its lots had no buildings, just like the next two blocks to its west. And all this was only two blocks south of the University of Chicago.

The gardens at 6212 South Woodlawn could be considered failures, due to lack of sustainability, but the lot exemplifies the priorities and realities of the community horticulture programs created by the Chicago Botanic Garden (CBG) in the city of Chicago. The community garden was started in 1990 on the initiative of a teacher at Carnegie Elementary School, a few blocks away, and became a partnership project with the University of Illinois Cooperative Extension Urban Garden Program, the other main player in community gardening in Chicago. It was christened the Children's Community Garden. Aged gardeners from nearby gardens and other neighbors mentored young gardeners, caring for colorful flowerbeds and raised beds for vegetables. This

[1] October 25, 2019.

combination of plantings was common among community gardens in the city, as was the important role of partnerships.[2]

Unfortunately, partnerships were not enough to keep the garden going. Doing the work of two people, Cliff Zenor, community horticulturalist, did not have the time to maintain a robust program at the community garden in the long-term, and violence in the neighborhood made continuing to garden on South Woodlawn Avenue unsafe anyway. What had started as an attempt to bring nutritional, economic, and psychological benefits to children in the neighborhood by growing plants failed in the face of local challenges.[3] Like all community gardens, its success relied on the continued involvement of neighbors and neighborhood organizations. Many of the pressures on these gardens, like violence and poverty, were incredibly challenging. Some gardens, with the support of neighboring churches, schools, and the botanic garden, managed to prevail as they addressed the challenges of poverty directly, bringing food, financial support, stress-relief, and the development of community connections.

Despite its initial failure, the garden site had a revival in 1996, this time with the leadership of residents and a Chicago Botanic Garden staff member, Jamie Douglass, who was solely devoted to helping improve past CBG community gardens. Now called the Ebony Garden, Hank and Candace Vogler took the lead on the project. Judging it safe again, Candace and Hank began to cultivate the site that spring, marking out paths in the garden and calling together neighbors. Like other garden leaders, they quickly

[2] Rebecca Severson, "Local Garden Helps Pilsen Bloom," *The Neighborhood Works*, April 1985: 7-8, Folder: Portfolio-Hist. Green Chicago, RS. Chicago Horticultural Society, *Annual Report 1986,* 22.
[3] Jamie Douglass, "Green Chicago Site Survey," May 5, 1995, JD.

realized that everyone's vision for the garden was different, from a nature center, to a collaborative production plot for salad greens, to a place with family vegetable plots. Their work included growing vegetables, but longevity would also require managing community dynamics. They did this by giving individual gardeners plots to develop into their own visions, while providing training on processes that could be useful to everyone, like composting and raised beds. They knew they had been successful at community building when Mr. Bass, an African-American from the South, after fifty years, broke his vow to never shovel or hoe again.[4] Ultimately, the garden did not last but the impact on its neighbors—Hank, Candice, Deke, Buttercup, Oscar, and Mr. Bass, among others—did. Beginning in 2012, Hank started another garden a few blocks east, and it is now a vibrant and growing garden, protected by the NeighborSpace land trust in Chicago.[5]

A Botanic Garden on A Mission

The garden at 6212 South Woodlawn was just one of the tens of community gardens started in partnerships with the Chicago Botanic Garden between 1982 and 1997, and community gardening was only one of the community horticulture programs the garden led between 1970 and 2000. Community gardens are physical spaces where neighbors garden together, raising a variety of plants. More broadly, community horticulture programs include activities that physically green the community through

[4] Hank Vogler, "The Ebony Garden Community Garden," *Green Connection* (April/May 1996): 7.
[5] Woodlawn Wonder, "Woodlawn Community Garden: A Progression In Pictures," I Hate My Developer, Chicago Now, June 25, 2013, http://www.chicagonow.com/i-hate-my-developer/2013/06/woodlawn-community-garden-a-progression-in-pictures/#image/ad.

planting, horticultural therapy programs, and horticultural educational programs for all ages.[6] While some of these programs have been termed "outreach" by staff at the CBG and elsewhere, "community horticulture" is a more inclusive term that does not imply the same directionality of an institutional garden with expertise providing a resource to the community or attempting to solve the community's problems.[7] Instead, many of these programs aspired to work alongside community members to improve community spaces in a way that benefited both the community and the botanic garden through mutual program creation.[8] At CBG, these community horticulture programs were intended to demonstrate the garden's relevance to the city, county, and beyond while making a real impact on the nutrition, pollution control, social fabric, and general health of its neighboring communities.

As a botanic garden, CBG had a stake in environmental concerns, and this intention was manifest in its programs. During the late 1980s, the garden started an environmental education program in elementary schools near the garden designed to inspire students to grow up to become environmental leaders.[9] In 1988, they

[6] A note about the word greening: throughout this dissertation I will use the word "greening" in a literal, rather than metaphorical, sense to indicate an increase in the number of plants in an area and therefore the amount of green there (at least during the growing season). I am not referring to general environmental practices or ideas.
[7] James Capararo, "Collective Impact in Neighborhood Revitalization Part 2: The Problem with Community Outreach," *Collective Impact Forum*, December 16, 2014, accessed September 9, 2019, https://www.collectiveimpactforum.org/blogs/32226/collective-impact-neighborhood-revitalization-part-2-problem-%E2%80%9Ccommunity-outreach%E2%80%9D.
[8] Robin Simmen in discussion with Reba Luiken, October 25, 2017. This term was used by practitioners as early as the mid-1990s. "Later Bloomers," *Plants and Garden News* 13, no. 4 (Winter 1998): 11.
[9] Chicago Botanic Garden, "The Environmental Education Awareness Program," n.d., Folder 1: Outreach Programs 1987-96, CORE and EEAP, Box 1016B, CHS.

incorporated conservation into their mission statement, reinvigorating a focus that was touted during their initial fundraising campaign.[10] Authorized in 1965 and opened in 1972, CBG capitalized on a public interest in the environmental movement following *Silent Spring* and Earth Day to fund its operating budget.[11] Staff members were personally interested in environmental issues, taking part in Earth Day and Arbor Day celebrations and making considerations for their personal use of plastics and individual environmental impact.[12]

However, environmental issues were a trailing concern when it came to the implementation of most community horticulture programs. Responding to funders' priorities, the staff wrote grants that concentrated on socially-focused programs that connected to food and community welfare rather than environmentally-focused programs.[13] Horticultural therapy programs and elementary science education programs in Chicago Public Schools run by the garden stressed basic plant biology without discussion of the environment.[14] Community gardening programs touched on global environmental issues only obliquely, instead concentrating on the immediate social and horticultural needs of community groups.

[10] Chicago Horticultural Society, *Annual Report 1988,* 6. Chicago Horticultural Society, "Why a Botanic Garden for Chicago?" 1964, CHM.
[11] Chicago Horticultural Society, "Why a Botanic Garden for Chicago?"
[12] Rebecca Severson, interviewed by Reba Luiken, August 24, 2018 in Evanston, Illinois, 25.
[13] "Botanic Gardens Yield Crops Aplenty," *Chicago Defender*, October 23, 1986 in Folder: Portfolio-Hist. Green Chicago, RS. "Urban Outreach Funding Plans," November 1, 1993, Folder 5: Urban Horticulture Programs 1987-1993, Box 1014, CHS.
[14] Jim Vear interviewed by Reba Luiken, August 14, 2018 in Glenview, Illinois, 13. Interview transcript and recording to be deposited in the CHS archive.

A reason for this lack of attention to environmental topics was staff members' commitment to community horticulture rather than outreach. As Andrew Hurley has argued, "African Americans had always understood their environmental dilemma in terms of broader structural inequalities."[15] It would have been disrespectful of community-members' lived-experience to treat a community garden as an environmental project divorced from pressing and intimately connected social ones. Therefore, staff focused on social impacts, simultaneously addressing integrated environmental ones. Cliff Zenor recalled that community members were focused on the practical issues in their lives like cleaning up an ugly lot or producing healthy vegetables rather than "saving the planet" or conserving water. He might touch on a conservation-related concept by suggesting organic pest control or companion planting, but discussions were rarely explicitly environmentally-minded.[16] Other community horticulturalists at CBG followed the same approach.

Successfully working alongside communities and navigating institutional politics required the integration of environmental, social, and therapeutic goals. The process of justifying these purposes to the public and sponsors has led leaders to continuously redefine what it means to be a botanic garden in the late twentieth and early twenty-first centuries, and the Chicago Botanic Garden is an exemplar of the aspirations and challenges of urban botanic gardens across the country. Although early twentieth century gardens had often been started for the elite, by the elite, or in exclusive neighborhoods,

[15] Andrew Hurley, *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980* (Chapel Hill: University of North Carolina Press, 1995), 112.
[16] Cliff Zenor interviewed by Reba Luiken, August 17, 2018 in Mishawaka, Indiana, 27. Interview transcript and recording to be deposited in the CHS archive.

most found they could not sustain themselves politically or financially as a place perceived as exclusive. Social relevancy through community-programs became an attractive solution to the problem, and the newly established CBG became an innovator in the last third of the twentieth century.

This dissertation interrogates the construction, physical and conceptual, of a botanic garden in the context of a dynamic and rapidly changing urban community. While it documents the financial, social, and personal influences that shaped programs at the Chicago Botanic Garden, it places them in a larger context of contemporary currents in the public garden and museum world. In particular, as a relatively young organization, it was enabled to grow into a leading institution that others looked to as a model for community horticulture. This institution has been informative to practitioners as a conceptual model, but this dissertation analyzes its constituent parts more deeply. Here, the botanic garden is illustrated as a continually-created and ever-changing organism as its staff and their relationships define and redefine fundamental realities of the garden including its location and its constituency. The science and science communication of the Chicago Botanic Garden is, at its core, relational and crafted in community.

Environmental and Social Goals in Tension

While environmentalism was not the operating philosophy or the explicit goal of community horticulture programs at the Chicago Botanic Garden, staff did intrinsically address environmental inequalities. For the community horticulture staff, this distinction between environmental goals and social goals was deliberate, but their public programs were, in fact, integral to a wider movement of environmental justice in urban America

that began in the late 1970s in response to inequitable densities of toxic waste in neighborhoods.[17] While community members in the predominately poor and minority neighborhoods where community horticulture programs were initiated experienced environmental degradation, most did not name it as such for complicated social and political reasons. Still, due to the inseparability of social and environmental issues, one could not address one without attention to the other. Horticulture was both social and biological.

Many environmental historians have previously interrogated these social-environmental complexities in other problem spaces. David Stradling and Richard Stradling, in their description of social-environmental challenges in Cleveland during the late 1960s wrote,

> "[T]he urban environment was not just a setting for Cleveland's decline; it was a central factor. As investment slowed, the rot, brought on by age, weather, pollution, and wear, greatly outpaced improvements. On street after street, clapboard houses slowly fell apart or were quickly engulfed in flames. Urban decay was real; it was physical, not metaphorical."[18]

This was true of Chicago as well, where urban population loss led to an increasing number of vacant lots and a decline in the overall housing stock. In addition, Chicago shared the distinction of being one of the most rodent infested cities in America alongside Cleveland and Boston at the time. Paul Wapner has also emphasized the importance of reframing the dialogue around nature to create space for both ecological and social

[17] Bethany Facendini, "Teen Eco Action: Moving towards Environmental Justice through Outdoor Education for At-Risk Urban Youth," MA thesis, (Sonoma State University, 2011), 4.
[18] David Stradling and Richard Stradling, *Where the River Burned: Carl Stokes and the Struggle to Save Cleveland* (Ithaca, NY: Cornell University Press, 2015), 9.

health.[19] Community gardens in Chicago were a direct way to address such issues. They occupied the vacant lots that emerged when houses were demolished and introduced green spaces that provided cleaner air and a use that precluded dumping.

Stephen Bocking has addressed the conceptual and linguistic disconnects among environmental actors, based on the work of Samuel P. Hayes. They challenge the idea that environmental consciousness was spread from a few individual and knowledgeable ecologists to become the ideas of many, transforming society after World War II and argue it does not entirely explain the process.[20] Instead, concern for the environment was also rooted in an individual "desire to improve personal, family, and community life."[21] This was true of the white middle-class just as it was of impoverished people of color. Bocking writes, "This transformation also means that environmental concerns most often address the environment—not as it is understood by ecologists or others with special expertise but as it is experienced by humans generally."[22] Though he does not use the term "environmental justice," his observations parallel those explored by later authors who do, such as Andrew Hurley, Robert R. Gioielli, and Stradling and Stradling, who stress that interest in the environment is something that has been a reality of Americans of all classes as a result of their daily lived experiences.[23] Environmentalism has never

[19] Paul Wapner, *Living Through the End of Nature: The Future of American Environmentalism* (Cambridge, Massachusetts: MIT Press, 2010), 11-12.
[20] Stephen Bocking, *Ecologists and Environmental Politics: A History of Contemporary Ecology* (New Haven, CT: Yale University Press, 1997), 7.
[21] Samuel P. Hays, *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985* (Cambridge: Cambridge University Press, 1987) as cited in Bocking, *Ecologists and Environmental Politics*, 7.
[22] Bocking, *Ecologists and Environmental Politics*, 7.
[23] Stradling and Stradling, *Where the River Burned.* Hurley, *Environmental Inequalities.* Robert R. Gioielli, *Environmental Activism and the Urban Crisis: Baltimore, St. Louis, Chicago* (Philadelphia, PA: Temple University Press, 2014).

been the sole domain of a social elite or a movement led by a scientific experts. Though the Chicago Botanic Garden staff members were not concerned with such distinctions, they built on such broad environmental interests.

CBG administrators did not emphasize the environmental impact of their urban work because, although interested in environmental issues, they viewed their programs through a different lens. Their funding for urban horticulture came largely from institutions that supported social programs, and one of CBG's underlying institutional motivation for these programs was to demonstrate to their private and governmental funders that they provided essential services to the community. Community horticulturalists and community members also embraced a social, rather than environmental, understanding of their community horticulture work. They realized that the issues of pollution and poverty competed for a limited amount of private and public funds, and many believed that addressing issues related simply to pollution and the environment really meant addressing the concerns of affluent people. Whitney Young, National Urban League director in 1970, stated his opinion succinctly, "The war on pollution is one that should be waged after the war on poverty is won."[24] Improved park spaces and odorless water seemed like luxuries when crime and food scarcity were constant stressors.

And yet, in reality, these issues were connected. Pollution included the rubble-filled vacant lots that disproportionately affected poor communities, and those who built community gardens understood that they addressed multiple issues. Some of these issues were connected to goals related to environmental concern, but the community members

[24] Quoted in Hurley, *Environmental Inequalities*, 10.

who addressed these challenges by building community gardens did not associate themselves with a broader environmental movement. So while CBG's urban horticulturalists respected community members' perspectives which focused on violence, crime, and dumping rather than air and water quality, they understood that their work also fulfilled environmental objectives. Poor sanitation, overcrowded housing, hunger, and pests were simultaneously social and environmental issues. Community horticulture could address both at the same time.

Not all of Chicago Botanic Garden's community horticulture programs dealt with the relationship between social and environmental challenges in the same way, and this is particularly clear in the case of their elementary education programs. Like its community gardening programs, CBG's education programs in struggling Chicago Public Schools focused on concrete concepts. Students would complete a workbook with color illustrations that laid out a tangible project, like laying out a garden, that incorporated basic science skills like measuring and observation.[25] In contrast, in the program that targeted suburban schools, CBG staff focused explicitly on environmental conservation and ecological processes. These more abstract and less concrete concepts were responsive to the perceived vocabulary, needs, and concerns of these communities, as demonstrated by their homegrown and affluent funders.[26] This difference highlights the limited access students of color in urban and poor areas had to conceptual understandings of contemporary environmental issues, helping to perpetuate racial distinctions. Funding

[25] Chicago Horticultural Society, funded by Kraft General Foods Foundation, "Classroom Gardens: How Can You Plant a Garden?" JV.
[26] "Winnetka Garden Club Application for Founders Fund Award of the Garden Club of America for the Environmental Education Awareness Program," 1987, Folder 1: Outreach Programs 1987-96, CPRE and EEAP, Box 1016 B, CHS.

sources for the urban program were also less directly connected to the community, making the program's name, Community OutReach Education, an apt description of the orientation of the program's sponsors' perspectives.

Program Leadership

While I focus on the Chicago Botanic Garden's work with community partners, this dissertation is still primarily an institutional history, though one that focuses more on community impacts than internal dynamics. CBG drew a majority of its funding from governmental sources, unlike many other public gardens which were more reliant on private donations, and that shaped its work toward public service.[27] Earned revenue, their largest-in-the-nation membership pool, and grants also pushed their programs toward popular and specific appeal.[28] Influenced by this funding, the leadership dynamics within CBG also shaped program development. This is particularly clear in the case of Eugene

[27] Meghan Z. Gough and John Accordino, "Public Gardens as Sustainable Community Development Partners: Motivations, Perceived Benefits, and Challenges," *Urban Affairs Review* 49 (2013): 872.
In 1970, eighty-five percent of the garden's one-million-dollar budget came from a Cook County Tax Levy. Chicago Horticultural Society, *Annual Review 1970/1971*, 25. By 1990, this government contribution had shrunk to sixty-three percent of a $13.7 million budget, with the remainder coming from donations of all types and earned revenue. Chicago Horticultural Society, *Annual Report 1990*, 9. In 1995, for the first time, tax revenues did not make up the majority of CBG's income; however, they have remained the largest portion, remaining a full quarter of the garden's income in 2016. Chicago Horticultural Society, *Annual Report 1995*, 21. Chicago Botanic Garden, *Annual Report 2016*, 18. In contrast, only thirty-eight percent of the New York Botanical Garden's $23 million budget in 1990 was from government sources. New York Botanical Garden, *Annual Report 1990*, 36. By 2014, government funding for the New York Botanical Garden had shrunk to eighteen percent. New York Botanical Garden, *Annual Report 2014*, 11.
[28] Susan Berger, "$5 Million Gift will Create Evening Island at Garden," *Evanston Review*, January 14, 1999, Folder 10: Evening Island – News Articles, Photographs, Garden Guide, Box 1018, CHS.

Rothert, a young horticultural therapist who rose rapidly to become head of the urban horticulture department at CBG and continued as its leader for three decades.

Rothert's heart, however, would remain with the horticultural therapy program, a field that developed in parallel to his career. Horticultural therapy has a long, informal history within and alongside the medical profession, but its national association of practitioners was established only in 1973. Since that time, the boundaries of horticultural therapy have been neither clearly defined nor broadly adopted. Instead, the American Horticultural Therapy Association has taken a big tent approach, including among its membership anyone who uses horticulture (as opposed to herbal medicine) to improve any kind of health outcome. This includes job-training programs for people with disabilities, and perhaps, community gardening. At CBG, however, Rothert adopted a more constrained approach, defining horticultural therapy as a specific type of physical therapy, with outcomes in medical settings that could be measured by peer-reviewed research.

In contrast, one of the early and most well-respected voices in horticultural therapy at the end of the twentieth century, Charles Lewis, was also one of its most broad-minded. "Horticultural therapy is concerned with manipulation of plants, not as an end in itself, but rather as a means of achieving specific benefits for people," he explained to the National Council for Therapy and Rehabilitation through Horticulture in 1979.[29] He spent his career outlining the kinds of specific benefits might be included

[29] Charles A. Lewis, "Human Dimensions of Horticulture," in *"Growth and Professionalism": Seventh Annual Conference, National Council for Therapy and Rehabilitation through Horticulture* (Glencoe, Illinois: Chicago Horticultural Society, 1979), 31-41.

under the umbrella of the plant-people relationship while he worked as a horticulturalist at the Morton Arboretum, among other gardens. Job training for people with disabilities clearly fell into this category, he felt, and community gardening for people with social and economic disadvantages (or simply excess stress) might too. As a horticulturalist in the Chicago metropolitan area, Lewis' views had an incontrovertible impact on views of community horticulturists at CBG through his writings, speeches, professional network, and work with the Chicago Housing Authority. Not everyone at CBG or nation-wide agreed with his inclusive approach to horticultural therapy, however.

Rothert remained devoted to a stricter definition of horticultural therapy even as he was simultaneously the head of both more traditional horticultural therapy programs and programs engaged in work in the broader community, especially those living in poverty. In December 1981, CBG received two large grants that precipitated the foundation of a new urban horticulture department with Rothert at its head. Dr. Scholl's Corporation provided start-up funding to the Plantmobile program, which intended to bring horticultural information to community groups and events. The Joyce Foundation awarded money for "revitalizing neighborhoods, stimulating social interaction, providing nutritious food, promoting garden skills, encouraging self-reliance, conserving resources, reducing family food budgets, [and] creating opportunities for recreation and exercise" through horticultural projects under the rubric of Green Chicago.[30] Though Green Chicago and the horticultural therapy programs were both in the same department and

[30] Eugene A. Rothert, Jr., "The Greening of Chicago," Folder 4: Papers Written by Gene Rothert on Urban Horticulture and Buehler Enabling Garden, Box 1014, CHS.

had the same leadership, their different approaches to using plants to improve the health of Chicagoans created an ongoing division in the department.

This association of community horticulture with horticultural therapy, however, is just one way in which individuals who worked in community horticulture in Chicago connected their work with a larger understanding of their personal and collective impact. Rebecca Severson, founding director of the Green Chicago program, saw her work at the garden as part of her larger interest in activism for social and environmental justice. Craig Zenor, a community horticulturalist with the GROW program, pursued the profession after he identified it as his calling, rather than joining the Lutheran ministry. Sister Cecilia Fandel and the other Catholic sisters who partnered with CBG saw gardening as an integral part of their ministry in the community. These individual understandings of the work being done through community horticulture programs shaped the way these programs developed.

Public Image

While individual priorities have caused some gardens and horticulturalists to advocate for community programs with particular enthusiasm or of a particular type, over the past forty years the staff and leadership of botanic gardens across North America have collectively become increasingly aware of their garden's public image. The public—comprised of individual visitors and donors, funding institutions, and different levels of government—was no longer content to support an oasis that separated itself from its locale. In order to keep pace with increasing costs and increasing competition for funding, botanic gardens have had to persuade the public of their relevance. The Chicago

Botanic Garden, like many of its peers, did so by developing and marketing new programs.

Eugene Rothert, the Chicago Botanic Garden's first director of the urban horticulture department, put it this way in 1982:

> "Across the country, botanic gardens, arboreta and other cultural institutions are undergoing a self-analysis that is bringing with it new directions in educational and service programming. In present economic situations, every cultural institutions [sic] is being required to justify its existence to the public it serves in order to acquire private and public funding upon which their survival depends. It is becoming rapidly apparent that today's botanic gardens and arboreta can no longer exclusively conduct themselves on their beautifully landscaped and maintained grounds."[31]

In the midst of an ongoing economic recession, Rothert explained the origins of his new program and articulated its intentions.[32] It was no longer enough to continue with the same funding expectations from the same small group of people, largely a well-educated middle and upper class eager to find a retreat in a secluded green space. The Chicago garden's outlook needed to change to accommodate a new set of priorities that could meet the expectations of cities, foundations, and garden supporters.

Chicago Botanic Garden has been recognized as a leader in this field of outreach, but it is also one example of a trend among botanic gardens and museums. In 1985, the magazine *Garden*, a collaboration between numerous North American botanic gardens

[31] Rothert, "The Greening of Chicago."
[32] Stanley Ziemba, "Better Economy Hasn't Helped the Bottom Rungs," *Chicago Tribune*, September 21, 1986. John Kass, "Summer Violence Heats Up With 9 Killings: It's Just Another July Weekend in Chicago," *Chicago Tribune*, July 14, 1986. William Recktenwald and Blake Morrison, "Guns, Gangs, Drugs Make a Deadly Mix," *Chicago Tribune*, July 1, 1990. Laura J. Lawson, *City Bountiful: A Century of Community Gardening in America* (Berkeley and Los Angeles: University of California Press, 2005), 213-215. Community gardening was also seen as a partial solution to the economic recession in New York and throughout the country.

including the New York Botanical Garden and the Chicago Botanic Garden, published a special issue focused on "Gardening in the Cities." The issue marked urban horticulture as "a new field of horticulture…in which a growing number of scientists and practitioners form all over the world are turning their attention to the problems of the 'natural' side of the city—getting our street trees to survive and grow and our parks to be thriving green oases, and turning our vacant lots into community gardens."[33] The Chicago Botanic Garden's urban horticulture efforts were highlighted alongside those of the Atlanta Botanical Garden, Horticultural Society of New York, Los Angeles State and County Arboretum, New York Botanical Garden, Queens Botanical Garden, and University of British Columbia Botanical Garden. Each had urban programs tailored to the needs of their cities and the financial means of each botanic garden. They were also tied to their historical strengths and priorities.

Botanic Gardens and the Wider World

In 1910, the Brooklyn Botanic Garden was founded under a measure passed by the state legislature. The language of garden's mission, as stated in this act of incorporation, was identical to that of the New York Botanical Garden, which was founded in 1891, but the lived mission of the Brooklyn Botanic Garden was fundamentally different from the very beginning. Both gardens were tasked with the following:

> "collection and culture of plants, flowers, shrubs, and trees, the advancement of botanical science and knowledge, the prosecution of original researches therein and in kindred subjects, for affording

[33] Nina L. Bassuk, "Planting for the City Ecosystem," *Garden Magazine* (November/December 1985): 8-10. This was a special issue on gardening in cities.

> instruction in the same, for the prosecution and exhibition of ornamental and decorative horticulture and gardening, and for the entertainment, recreation, and instruction of the people."[34]

In more general language, the gardens were to develop a landscape garden of horticultural and botanical value, undertake botanical research, and educate the public. Both gardens sought to fulfill their mission, but they did so, especially in the case of public education, in remarkably different ways.

Located in the Bronx and founded in 1891, New York Botanical Garden was to be the "lungs" of the north side of the city, have collections open to the public, and become a new leader in botanical sciences as the United States gradually replaced Great Britain as leader of an imperial world.[35] It was founded on the vision of Nathaniel Lord Britton and Elizabeth Knight Britton, husband and wife, botanists who had been inspired by their visit to The Royal Botanic Gardens Kew in England to build a botanic garden that could secure a place of primacy for American botany. Peter Mickulas has emphasized that botanical science was their first priority as Nathaniel Britton took advantage of his close connections to Columbia University to develop a graduate program with the primary goal of training students of the highest caliber.[36] This was not at the complete exclusion of the public, who were offered regular tours, could stroll through the park-like grounds, and

[34] The New York Botanical Garden, Act of Incorporation, Chapter 285 of the Laws [of New York State] of 1891, Amended by Chapter 103 of the Laws in 1984.
[35] Peter Mickulas, *Britton's Botanical Empire: The New York Botanical Garden and American Botany, 1888-1929*. *Memoirs of The New York Botanical Garden* 94 (New York: The New York Botanical Garden Press, 2007), 4 and 60.
[36] Mickulas, *Britton's Botanical Empire*, 7 and 67. David L. Lentz and Marlene Bellengi, "A Brief History of the Graduate Studies Program at the New York Botanical Garden," *Brittonia* 48 (1996): 412.

even observe plants through microscopes purchased specifically for their use, but science was central at the New York Botanical Garden.[37]

As a scenic place for strolling and as a scientific institution, the Brittons were faithfully imitating two important aspects of Kew Gardens, outside of London. During the first half of the eighteenth century, the gardens at Kew were part of a royal estate on the Thames, but by the end of the nineteenth century when the Brittons visited, they had been transformed into a first-class botanic garden with a focus on economic botany research and a visitorship of over half a million people per year. The transition from private estate to public garden and scientific institution had been gradual. The *Philosophical Transactions of the Royal Society* first referred to Kew as a botanic garden in 1776 after it had been under the leadership of Sir Joseph Banks for three years.[38] Banks molded the garden in his vision of a scientific but also practical institution that played an active role in the economic life of the nation as a center for the global trade and collection of plants embedded in a colonial network of royal gardens. The garden's other formative leaders, Sir William Hooker and his son, Sir Joseph Hooker, helmed the garden from 1841 through the Britton's visit in the early 1880s. They created the garden as the Brittons knew it—satisfying to the needs of science and recreation. In service of these two goals, it was regularly open to the public through multiple entrances and at the same time a major orchestrator of the introduction of economic plants like latex throughout the

[37] Mickulas, *Britton's Botanical Empire*, 102 and 117.
[38] Ray Desmond, *The History of the Royal Botanic Gardens Kew*, 2nd ed. (Royal Botanic Gardens, Kew: Kew Publishing, 2007), 89-94.

colonies.[39] The Brittons and their colleagues in New York society believed they could import both.

While the New York Botanical Garden has become, arguably, the most successful American botanic garden in its attempt to replicate Kew's success as a cameralist and ethnobotanical research garden, it was not the first. As one of England's progeny, the United States sought to develop a national botanic garden in the image of Kew and other imperial gardens as early as 1796, when it was included in the street plan for Washington, D.C.[40] However, it was not until 1855, after the United States Exploring Expedition became the first American imperialist expedition to the Pacific, that the garden developed a collection and a modest one at that. The Missouri Botanical Garden, like the New York Botanical Garden, was inspired by an 1851 visit to Kew Gardens. Henry Shaw, a wealthy St. Louis businessman who had made his fortune in iron and steel manufacturing, began to develop the landscape of his estate following his experience at Kew.[41] In 1859 with a land grant of 760 acres from the state legislature of Missouri, the garden was expanded and opened to the public. In 1880, it would formalize a scientific research partnership with Washington University and would continue to develop into the other leading American garden for botanical research.[42]

Whether being founded *de novo* or being transformed from apothecary and pleasure gardens, by the middle of the nineteenth century the idea of a botanic garden

[39] Desmond, *Kew*, 148-235.
[40] Anne-Catherine Fallen, *A Botanic Garden for the Nation: The United States Botanic Garden* (Washington, D.C., United States Government Printing Office, 2009), 13.
[41] Andrew Colligan, "Chapter 2: History of the Missouri Botanical Garden," in *Missouri Botanical Garden: Green for 150 Years*, ed. Elizabeth McNulty (St. Louis, Missouri: Missouri Botanical Garden 2009), 18-65.
[42] Colligan, "Chapter 2," *Missouri Botanical Garden*, 36.

was coalescing around a particular set of characteristics that were essential to the concept's replication in North America. Douglas Holland argues that, "Botanical gardens [became] unified by their intrinsic mission to collect, preserve, and display plants for beauty, scientific research, and education" in this time period.[43] Thus, they combined beautiful landscapes from the pleasure garden tradition, education from the tradition of apothecary gardens, and new scientific goals that were enabled by global collection of plants, especially in the eighteenth and nineteenth centuries. In fact, by the end of the eighteenth century, state-financed gardens like the Jardin du Roi in Paris and Royal Botanic Gardens, Kew in London, commanded so many resources for botanical inquiry that few others could compete.[44] Especially in the United States, universities would ultimately take the upper hand in research prowess, but the tripartite mission of botanic gardens toward display, research, and education would remain.[45]

Shortly after the New York Botanical Garden was founded, however, the ideals of the Progressive Era took hold in museums and fundamentally changed their leaders'

[43] Douglas Holland, "Chapter 1: What is a Botanical Garden," in *Missouri Botanical Garden: Green for 150 Years*, ed. Elizabeth McNulty (St. Louis, Missouri: Missouri Botanical Garden 2009), 11-17. This definition has persisted with the tripartite goals of display, research, and education continuing to this day, as has been noted by numerous garden leaders and organizations. Donald Wyman, "How to Establish an Arboretum or Botanical Garden," *Arnoldia* 20, nos. 11-12 (December 1960): 69-83. "Acquiring Botanical Gardens Status," *American Public Gardens Association*, accessed September 9, 2019 https://www.publicgardens.org/acquiring-botanical-garden-status. International Union for Conservation of Nature-Botanical Gardens Conservation Secretariat and World Wildlife Foundation, *The Botanic Gardens Conservation Strategy* (Kew, Richmond, UK: IUCN Botanic Gardens Conservation Secretariat and Gland, Switzerland: WWF and IUCN, 1989): 5.
[44] Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World* (Cambridge, MA: Harvard University Press, 2007), 59.
[45] Steven Conn, *Do Museums Still Need Objects* (Philadelphia: University of Pennsylvania Press, 2010), 145.

understanding of what gardens' and museums' missions of education entailed. This reorientation of museums toward the public was known as the New Museum movement and coalesced in the period between 1880 and 1910. Karen E. Rader and Victoria E. M. Cain have outlined the arguments of advocates of this new concept, known as "museum men," who argued that museums should reach and teach all citizens.[46] To do so, museums began to open on Sundays, sort and label their collections, and to display them in more thematic ways that were intended to capture the interests of audiences rather than to merely store objects where they could be viewed. In 1907, Frederic A. Lucas, curator at the Brooklyn Institute of Arts and Sciences confidently asserted that "the character of museums has changed so greatly…those who know these institutions only as they exist today may not realize how widely they differ from what they were even twenty-five years ago.[47]

It was under this new philosophy that the Brooklyn Botanic Garden was conceived in 1910. A subsidiary of the Brooklyn Institute of Arts and Sciences which was already heavily focused on public education, Brooklyn Botanic Garden was supported by an anonymous donation through Alfred T. White, a Brooklyn businessman known for his business model of "philanthropy plus five percent," with the stipulation that the garden focus on public education for all.[48] C. Stuart Gager, who had a Ph.D. in

[46] Karen Rader and Victoria Cain, *Life on Display: Revolutionizing U.S. Museums of Science and Natural History in the Twentieth Century* (Chicago: University of Chicago Press, 2014), 9. Edward P. Alexander notes a similar shift in *The Museum in America: Innovators and Pioneers* (Walnut Creek, CA: Altamira Press, 1997), 25.
[47] Frederick Augustus Lucas, "The Evolution of Museums," *PAAM* 1 (1907): 85; Quoted in Rader and Cain, *Life on Display*, 9.
[48] "Botanic Garden and Arboretum," in *Bulletin of the Brooklyn Institute of Arts and Sciences* 4, no. 7 (Feb. 26, 1910): 156-158.

botany as well as a master's degree in education, was appointed as its founding director. While BBG became the home of the journals *Genetics*, *The American Journal of Botany*, and *Ecology*, public education and public service became its reputation-sustaining programs.[49] In 1914, Ellen Eddy Shaw began a children's garden program at the Brooklyn Botanic Garden that has continued to the modern day, remaining a model for similar programs at botanic gardens around the world, including CBG's Children's Vegetable Garden. It was also the first botanic garden in the nation to have a garden for the blind, from 1955. The Brooklyn Botanic Garden became a place where people could actively engage with the gardens and find answers to their questions about them, just as other museums had in the early twentieth century. It was able to do this so successfully, in part, because it was newly founded and unencumbered by old ways of thinking and organization.

While the New York Botanical Garden and Brooklyn Botanic Garden were distinct in their philosophical outlook in the early twentieth century, the Chicago Botanic Garden later contributed to another orientation toward public education and American museums and botanic gardens in the late twentieth century. While community horticulture programs (and development programs more generally) have their roots in the social ideals of the Progressive Era and the museum transition at the turn of the twentieth century, according to Meghan Z. Gough and John Accordino, they became prevalent in their modern form during the 1960s and 1970s.[50] As the stock market fell precipitously,

[49] "Coöperation with Other Organizations," *Brooklyn Botanic Garden Record* 33 no. 2 (April 1944): 149-154.
[50] Gough and Accordino, "Public Gardens as Sustainable Community Development Partners," 856.

inflation grew, and urban tax bases eroded in the late 1960s and early 1970s, many nonprofit and government-funded museums, including botanic gardens, found themselves unable to cover operating costs.[51] Museums looked desperately for ways to combat this financial shortfall by appealing to social and educational relevancy.

The Exploratorium in San Francisco and the Anacostia Neighborhood Museum in Washington, D.C. offered two different but similarly innovative and often imitated approaches. The Exploratorium, founded by Frank Oppenheimer, opened in 1969. Later deemed the archetypical science center, with exhibits aimed to entertain and teach science concepts but no permanent natural historical collection, the Exploratorium sought to democratize the museum experience and make scientific knowledge available to all.[52] This new museum was more than available to the public, it was designed to interact with them and to be tailored to their interests and experiences. The Anacostia Neighborhood Museum, founded by John Robert Kinard in the late 1960s, was designed in a different way. Self-defined as a "museum, cultural arts center, meeting place for neighborhood groups, and skill training center for youngsters," the museum sought to incorporate the input of locals and to create exhibits on the main issues of the neighborhood—education, unemployment, crime, and drugs.[53] Kinard believed strongly that museums should have a social role to help communities solve current problems rather than continuing to be places for collection, research, and even interpretation.[54] In both cases, the museum was

[51] Rader and Cain, *Life on Display*, 214.
[52] Rader and Cain, *Life on Display*, 209.
[53] Alexander, *The Museum in* America, 150-151.
[54] Alexander, *The Museum in America*, 152

to be a dynamic institution that sought to meet the self-defined needs and interests of the local public.

As a subset of museums, botanic gardens felt similar pressures and began to develop similarly pubic-facing programs during the 1970s.[55] As Rothert has suggested, botanic gardens needed to justify themselves as worthy of funding, and this required them to be more overt in their public service.[56] In addition to the financial challenges articulated by Rader and Cain, Gough and Accordino point to changing research funding, a reality that affected natural history museums as well as gardens. Research was by no means in decline, but by the 1970s it had shifted primarily to universities.[57] While botanic gardens like CBG sought to compete by developing research institutes of their own and strengthening ties to local universities, there was a refocusing on public service through community horticulture.

At the Missouri Botanical Garden in St. Louis, this outward-facing shift was precipitated by its location and firsthand experience of urban depopulation in addition to budgetary challenges. Before and after the construction of an interstate highway in the neighborhoods adjacent to the garden in the 1960s, disinvestment and population loss were the rule in the surrounding area. The garden's director, Peter Raven, realized that "if we wanted the Garden to be thought of as a safe, respectable place to visit, we'd have to do something [to help the neighborhood]."[58] To do so, Missouri Botanical Garden

[55] Gough and Accordino, "Public Gardens as Sustainable Community Development Partners," 857.
[56] Rothert, "The Greening of Chicago."
[57] Conn, *Do Museums Still Need Objects*, 145.
[58] Gough and Accordino, "Public Gardens as Sustainable Community Development Partners," 869-870.

formed the Garden District Commission, which worked to improve abandoned houses and vacant lots in the area, enacting the philosophy that a healthy community facilitated a heathy garden.

By the 1980s, the New York Botanical Garden faced similar pressures. Among other stresses, New York City's 1970s budget crisis caused acute urban decay in poorer regions of the city, particularly the South Bronx. Extending north to Fordham Road, the southern edge of the New York Botanic Garden, the South Bronx experienced rampant arson and other more violent crime. Within this context, Bronx Green-Up was founded in 1987 as an attempt to improve community relations with Bronx residents and ultimately to secure continued funding from state and city sources. Designed as a network hub, Bronx Green-Up was to serve as an informational center that connected community gardening groups with a multitude of resources in the New York City area. Terry Keller, already active in community horticulture within New York as a member of the Green Guerillas, was hired to plan the program.[59] As Bronx Green-Up developed, its programs included hands-on help for community gardens, workshops, and a holiday party for community participants.[60]

At the Brooklyn Botanic Garden, efforts in community horticulture came less from a place of local emergency, although there were racial and social tensions in the neighborhood, and more as a response to local interest and leadership philosophy. In response to a pattern of requests from community members, they began the Making

[59] "New York Botanical Garden Bronx Green-Up Program, A Report," November 15, 1988, Folder: Program Report, Box: Bronx Green-Up, Collection: Vice President of Education, NYBG.
[60] "An Invitation to Bronx Green-Up's 5th Annual Holiday Party," Folder: BGU Workshops, Box: BGU Org Info., BGU.

Brooklyn Bloom conference in 1982, a series of free workshops relevant to city gardeners who tended community plots, street trees, and planters.[61] After Judith Zuk became president of the garden in 1990, she hired Ellen Kirby, a community organizer with a background in missionary work, to lead GreenBridge in 1993.[62] The GreenBridge program was designed to serve the community on its own terms and to be separated from any institutional baggage associated with the Brooklyn Botanic Garden.[63] As GreenBridge grew, the Greenest Block in Brooklyn program became its flagship following its inception in 1994, encouraging residential and commercial blocks to organize and collaborate on community plantings.[64] These competitions inspired comradery among immediate neighbors of diverse social and racial backgrounds, but they also inspired engagement across the borough, as individuals from one block visited another. Over time, the competition also made increasing use of scientific horticulture practices as taught in hands-on workshops, incorporating best-practices in water use, street tree maintenance, and mulching in judging criteria. GreenBridge overall also incorporated compost demonstrations and distribution into its programming and was funded to do this work in Brooklyn by the New York City Department of Sanitation just as NYBG was.

61 "Making Brooklyn Bloom: Four Sunday Seminars," February 1982, Folder: Making Brooklyn Bloom, Box: GRC Periodicals, BBG.
62 "Brooklyn Botanic Garden: Brooklyn GreenBridge, Beautiful Gardens Building Stronger Communities, FY 1998 Program Activities," Folder: Greenbridge NY State (AD/CD) Project, BBG.
63 Brooklyn Institute of Arts and Science, "Community Groups Too Seek Assistance in Planning or Planting Their Gardens," *Annual Report 1971-1972*, 6.
64 "Brooklyn Botanic Garden: Brooklyn GreenBridge, Beautiful Gardens Building Stronger Communities."

For many botanic gardens, it was not until the 1990s that robust community horticulture programs were developed. Following a four-year closure and renovation between 1986 and 1990 and the institution of an admission fee, the Franklin Park Conservatory and Botanical Gardens in Columbus, Ohio, began community horticulture programs to reconnect with neighbors who felt "locked out of their own park."[65] They began to host popular exhibitions, assist local community gardens get started and renovate their spaces, and donate produce to local food pantries and soup kitchens. At the more rural North Carolina Arboretum in Asheville, community projects have focused on the cultural history and economic development of the area.[66] Though distinct, the common thread is an attention to the needs and interests of local community members.

For the Chicago Horticultural Society (CHS) and other horticultural societies across the nation, these ideas were not new, and CHS, the New York Horticultural Society, and the Pennsylvania Horticultural Society, in particular, became leaders in the field as their programs were often copied by botanic gardens. Between 1976 and 1985, the New York Horticultural Society worked with over a thousand community groups to establish new gardens in the city with the goal of helping to replace rubble-filled lots and provide nutritious food in the face of a rising cost of living. In 1983, they began a gardening program at Rikers Island prison providing food and training to inmates.[67] Under the leadership of Ernesta Ballard, the Pennsylvania Horticultural Society began to

[65] Meghan Z. Gough and John Accordino, *The Role of Public Gardens in Sustainable Community Development* (Philadelphia: American Public Gardens Association, 2013), 23.
[66] Gough and Accordino, *Sustainable Community Development*, 47-49.
[67] "Institutions That Make It All Happen," *Garden Magazine* (November/December 1985): 15-16.

reach out to low-income Philadelphia residents in the early 1970s, beginning the Philadelphia Green Program in 1978. The program focused on community development through self-help and mutuality, building bridges between people from different backgrounds.[68] This influential program became the archetype for Brooklyn Botanic Garden's GreenBridge program and influenced community horticulture programs at the Chicago Botanic Garden.[69]

Though botanic gardens are a type of living museum, they are also connected to a wider world of horticulture, making horticultural societies an important influence along with other trends in the gardening world.[70] During the 1970s, as community gardening developed, this became another major influence on garden programming. Still, the history of community gardening in America has been almost entirely separate from that of botanic gardens, as botanic gardens have had limited involvement in the movement.[71] During the first and second world wars, Liberty gardens and Victory gardens,

[68] Christina D. Rosan and Hamil Pearsall, *Growing A Sustainable City?: The Question of Urban Agriculture* (Toronto: University of Toronto Press, 2017), 39-41.
[69] Zenor Oral History, 11. Pennsylvania Horticultural Society, *Philadelphia Green News* 16, no. 3 (1994), Folder: Other Contests, Box: Greenest Block in Brooklyn, BBG.
[70] Jamie Jobb, *The Complete Book of Community Gardening*, (New York: William Morrow and Company, Inc., 1979), 165-169. Charlotte Kahn, "Chapter 2: Historical Roots: The History of Community Gardening," in *A Handbook of Community Gardening,* ed. Susan Naimark (New York: Charles Scribner's Sons, 1982), 11-15. Louise Brush-Brown, *Garden Blocks for Urban America* (New York: Charles Scriber's Sons, 1969). This work emphasizes the role of the Neighborhood Garden Association of Philadelphia as it catalogs the organization's work in the city. Sam Bass Warner, Jr., *To Dwell is to Garden: A History of Boston's Community Gardens* (Boston: Northeastern University Press, 1987), 20-45.
[71] Malve von Hassell, *The Struggle for Eden—Community Gardens in New York City* (Westport, CT: Bergin & Garvey, 2002), 36-57.

respectively, were primarily governmental projects.[72] Horticultural societies, such as those in Massachusetts, New York, and Pennsylvania were often participants in these projects, and botanic gardens might also play a role.[73] At the Brooklyn Botanic Garden, staff installed a model garden to demonstrate what could be done and offered classes about cooking with the produce.[74] However, they were supporting an outside initiative rather than promoting one of their own. Although botanic garden administrators believed that their contributions to these projects were important, they were a very small part of a larger community garden movement.

The genesis for the late twentieth century iteration of community gardens was not a response to a foreign war but a domestic battle, led by individual community members. Following the oil crisis in 1973, both food prices and unemployment rose rapidly. Facing a nutritional crisis, Detroit, where such economic problems were particularly pronounced, started vacant-lot gardening programs in the city.[75] Detroit's program, "Farm-A-Lot," began in the summer of 1975 and provided technical assistance, materials for preparing garden sites, seeds, and canning supplies for residents who had already begun planting gardens without official sanction. The goal was to use a readily available resource—

[72] Cecilia Gowdy-Wygant, *Cultivating Victory: the Women's Land Army and the Victory Garden Movement* (Pittsburgh: University of Pittsburgh Press, 2013). Lawson, *City Bountiful*, 188-143, 170-202.
[73] "Defense Gardens in 1941," *Horticulture* 19, no. 1 (January 1941): 4. *Horticulture* was a joint publication of the New York, Pennsylvania, and Massachusetts horticultural societies at the time. Lawson, *City Bountiful*, 210.
[74] "Brooklyn Botanic Garden: Victory Garden and other Courses, Winter and Early Spring," 1994, Folder: Circulars BBG 1937-, BBG.
[75] Serena Maria Daniels, "History in Photos: Detroit's 'Farm-A-Lot' program set the stage for urban gardening movement," *Tostada Magazine*, February 28, 2018.

vacant lots—to create something it did not have, namely heathy families. The idea quickly caught on nationally.

Frederick W. Richmond, Democratic representative from New York City, introduced and successfully shepherded legislation for the creation of the USDA Urban Gardening Program in 1976, during his first term, with the help of Jamie Whitten, a more experienced representative from Mississippi.[76] Originally limited to six cities—Houston, New York, Chicago, Los Angeles, Philadelphia, and Detroit—the program was deemed a success and expanded to twenty-three cities in twenty-three different states, continuing into the 1990s.[77] When botanic gardens began to get involved in community gardens a few years later, they echoed some elements of governmental programs, but the result transformed the botanic gardens themselves. Like the shift Frederick Lucas marked in museums at the turn of the twentieth century, the last third of the twentieth century would reconfigure the landscape of garden leadership and service.

The Chicago Botanic Garden becomes a useful exemplar at the nexus of the institutional-community horticulture and community garden movements. CBG's youth was formative, making it accessible to new museum philosophies in the 1960s, 1970s,

[76] Natalie Garza, "Eat Fresh, Eat Local: A History of Urban Gardening and Food Education," *Houston History* 9, no. 2, (Spring 2012): 27-31. U.S Congress, House, An Act Making Appropriations for Agriculture and Related Agencies Programs for the Fiscal Year Ending September 30, 1978, and for other purposes, HR 7558, 95th Cong., 1st sess., introduced in the House June 2, 1977, https://www.govtrack.us/congress/bills/95/hr7558/text.

[77] Tracie McMillan, "An Urban Farming Pioneer Sows His Own Legacy," *The New York Times*, May 18, 2010. "Common Ground Garden Program," Common Ground Garden Program, University of California Cooperative Extension - Los Angeles County, accessed September 14, 2019, http://celosangeles.ucanr.edu/UC_Master_Gardener_Program/Common_Ground_Garden_Program/.

and 1980s. CBG could rapidly develop and deploy programs in community gardening and horticultural therapy as their respective movements developed because staff did not have a set repertoire. In Chicago, this gave them greater importance in the community gardening community, relative to other large cities. In New York there were dozens of organizations to help community gardens. In Chicago, CBG was one of the three main players.[78] When the city wanted to develop school and community garden projects, they partnered with CBG, indicating its significant role in the city itself.[79] When the city named what they saw as the twenty-seven most successful community gardens in the city in 1996, more than one-third had been started in partnership with CBG.[80] Chicago Botanic Garden, therefore played a particularly important role in community horticulture programs both nationally and within Chicago.

Over the past thirty-five years, botanic gardens' concerns about urban and community issues have only increased. Discussions led by national and international organizations of botanical gardens, such as the Botanic Gardens Conservation International (BGCI) and American Public Gardens Association (APGA) demonstrate this expanded role in their publications and professional meetings. APGA published a

[78] Rebecca Severson, "City Harvest," *The Neighborhood Works* 7, no. 10 (October 1984): 1, 11-13. Folder: Portfolio-Hist. Green Chicago, RS. The other two were the University of Illinois Extension Program and a nonprofit called CorLands.
[79] Katherine Johnson and Marti Ross Bjornson, *The Chicago School Garden Initiative: A Collaborative Model for Developing School Gardens that Work* (Chicago: Chicago Botanic Garden, 2003).
[80] *CitySpace: An Open Space Plan for Chicago*, (Chicago: City of Chicago, 1998), 45. In contrast, entire books have been written about community gardening in New York City that never once mentioned the New York Botanical Garden. Instead, grassroots efforts are emphasized with the support of city programs. Lawson, *City* Bountiful. Von Hassell, *The Struggle for Eden*. In von Hassell's work, the Brooklyn Botanic Garden fared slightly better with one reference.

report on the role of public gardens in "sustainable community development," in 2012. In it they assert, "Today, public gardens must reach out to spread their benefits and address the recognized need and opportunity for their communities—merely maintaining their refuge will not suffice." In other words, in order to continue to assert their relevance, public gardens must move beyond themselves to advocate and assist in solving broader social or environmental problems.[81] In 2015, BGCI published a report (called a manual) entitled "Caring for Your Community," which highlighted a series of successful projects with a spectrum of environmental and social outcomes. BGCI's work deliberately maintains a broader scope, reviewing gardens and horticultural programs around the world and with international impacts.[82] Together, these reports demonstrate the increasing importance of community outreach among botanic gardens around the world.

A goal of this dissertation is to interpret the recent historical antecedents and the professional and personal logics that shaped the Chicago Botanic Garden. As a relative newcomer, the CBG could define its purposes and projects in a fresh way as it both built on the experience of other, older established gardens and responded to contemporary issues and audiences. A discussion about public relevance among American botanic gardens dates to at least the early twentieth century when museums became institutions as

[81] The report went on to highlight the diverse outreach and education initiatives of the Brooklyn Botanic Garden, Chicago Botanic Garden, Missouri Botanic Garden, and others. Not all of these were focused on community greening. For example, the North Carolina Arboretum's outreach programs targeted regional economic development, concordant with the needs of the surrounding rural community. However, as most American botanical gardens were northern, urban (or suburban) institutions, many of their outreach programs had similar community-garden type components that were intended to address similar social goals such as poverty, lack of green space, community cohesion, and nutrition.

[82] L. Derewnicka, A. Vergou, T. Moussouri, and A. Fernández Rodríguez, *Caring for your Community: A Manual for Botanic Gardens* (London: BGCI, 2015), 38.

concerned about public education as about research due to increasing social pressures on governmental and private funding. The environment would become of greater concern later but the conservation movement would also take a growing place among the concerns of botanic gardens. Institutions continue to change as they seek to remain relevant to contemporary issues and best practices, and this dissertation will analyze how leaders, funding, and the larger and more diverse Chicago community influenced the development of community horticulture programs.

Methods and Sources

This dissertation is based primarily on archival research and oral history interviews, with a focus on the materials of the Chicago Horticultural Society located at the Chicago Botanic Garden. The collections in the CHS archives are extensive, dating back to the founding of the horticultural society in 1890 and including annual and departmental reports, grant applications, garden publications, visitor studies, some news clippings, and a few oral history interviews with selected presidents and vice presidents of the garden. The news clippings tell the story of the garden, but they often omit the roles and opinions of individual garden employees. While drafts and final printed reports and publications were written by garden staff, few of them reveal their personal opinions. Other materials, including the nearly-complete collection of the urban horticulture department's *Green Connection* newsletter provide the best window into individual experiences and opinions about that department's programs.

Research in the Chicago Botanic Garden's archives was complemented by sources in the Chicago History Museum, Kenilworth Garden Club, the Garden Club of

America, and historic news articles available online through the *Chicago Tribune*. All four of these archives catalog the perspectives of interested and often supportive people outside the botanic garden's community horticulture programs. The Kenilworth Garden Club, along with its national organization, the Garden Club of America, provided funding for both environmental education and horticultural therapy projects developed by CBG. The Chicago Historical Society's Archives contained many duplicate publications sent to members and supporting institutions but also information about the years leading up to the founding of the Chicago Botanic Garden not recorded in the institutional archives. In many ways, it helped to answer the question, "What did the botanic garden's public face look like to a supporter?" Finally, the *Chicago Tribune*'s many articles about the Chicago Botanic Garden highlight another public perspective about the garden and its relevance to the public.

My oral history interviews also began in the archives. As I worked through archival documentation, I compiled a list of names of potential interview candidates among community gardeners, volunteers, and employees and rated their relevance to the project. After gathering contact information for these individuals, I reached out to those who worked at the Chicago Botanic Garden for the longest periods of time or in community gardens with continuous histories from the 1980s to the present. Responses were mixed, but I ultimately interviewed six individuals including two community gardeners and four former staff members.

In addition to providing oral sources, two of my narrators also held relevant printed materials that they shared with me. Rebecca Severson, who founded the Green Chicago program and worked at the Chicago Botanic Garden from 1982 until 1988,

provided extensive clipping files, providing a nearly comprehensive selection of articles that mentioned the Green Chicago program during Severson's tenure at the garden. Jamie Douglass, who worked at the Chicago Botanic Garden from 1995 until 1996, provided additional clippings along with a list of (nearly) all of the projects sponsored by the Green Chicago Program between 1982 and 1996 along with their locations. Both women also provided projector slides. Their paper files from both will be deposited in the Chicago Horticultural Society Archives in accordance with their accession policies. Together, these sources provided color, illustrations, and order to my chapter about the Green Chicago program.

Initially, the oral history interviews were intended to capture the perspectives of community members who participated in community garden development projects with the Chicago Botanic Garden, but ultimately, due to lack of response, the focus shifted. While two of my six interviews were with community gardeners, the other four were former employees. They provided highly individual and important perspectives on the motivations, judgements, and opinions of the staff who made community horticulture programs a reality on the ground in Chicago. Each was conducted over a one- to two-and-a-half-hour period; they will be deposited in the institutional archive of the Chicago Horticultural Society at the Chicago Botanic Garden in Glencoe, Illinois.

Outline of Chapters

The following chapters will demonstrate the Chicago Botanic Garden's community horticulture programs and its work to expand the mission of the garden through a focus on social outcomes. From community gardening to horticultural therapy

to elementary science programs, the urban horticulture programs of the Chicago Botanic Garden sought to address the needs of its community—broadly imagined to include much of Cook County. The staff who implemented them brought both a personal dedication as well as a sense of community to their work. Ultimately, these programs helped to put CBG on the map as a national innovator in community horticulture. They helped to address real unmet social and environmental needs in the community by leveraging social and financial capital and by convincing local government of their relevance and worthiness for continuing sponsorship.

Chapter one delves into the history of the Chicago Botanic Garden before the urban horticulture department began. The garden itself was established on paper in 1965 with a matching grant funded from sales tax revenue. It officially opened to the public in 1972. The Chicago Horticultural Society, with a membership of largely well-educated and philanthropic women, had an established record of community horticulture work. Programming for residents of the entire Chicago metropolitan area was central to the organization's mission. CHS, perhaps inevitably, had a long-standing internal struggle as it tried to meet the needs of the city and its suburbs. While they had grown up in the city, by the 1960s, most of the supporters of this struggling society had moved to the suburbs. As a side effect of this urban-suburban tension were considerations of land availability and environmental aspirations, CBG was planted on the north end of Skokie Lagoons, about twenty-five miles north of the city. Landscaping proceeded apace and the garden did become an attractive place for regional visitors. Although its research aspirations were not reached until decades later, CHS used this stable location to launch an

environment research program while maintaining the outreach programs that would secure its reputation and continued financing from city and county funds.

Chapter two demonstrates the differences between the garden's founding vision and its implementation, which became increasingly focused on horticulture and educational programs at the expense of research in the biological sciences because of the priorities of its executive leadership. Horticultural therapy became an area for innovative leadership by CBG, especially because the garden and the field matured contemporaneously. Rather than focusing on research that addressed environmental concerns like pesticide use and water pollution, the CBG became a nationally-recognized source for expertise about horticultural therapy in a variety of institutional settings, with an emphasis on creating financially-sustainable programs. The success of the horticultural therapy program hinged on the simultaneous development of the field at large based CHS's previous experiences in therapeutic programing under the leadership of Rothert and others. While research programs at the garden later surpassed horticultural therapy in terms of reputation and budgetary importance, Rothert's able leadership of the program would result in his promotion and influential role as leader of the entire urban horticulture department.

Chapter three traces the expansion of community horticulture work at the Chicago Botanic Garden into the realm of community gardening, emphasizing the dynamic relationships that developed between administrators at the garden, including Rothert, and front-line urban horticulturalists. While these relationships were often strained due to differing priorities—administrators focused on ensuring funding for programs while urban horticulturalists advocated for and partnered with community members—the net

effect of differing priorities was a set of urban programs that were responsive to the varied needs and interests of participants. Administrators sought funding from organizations focused on social issues and development, and these were exactly the kinds of issues—poverty, hunger, lack of community cohesion, illegal dumping—that community members hoped to address. While using gardening to address these issues had positive environmental impacts, residents and urban horticulturalists did not use language like environment and pollution because these were seen as issues for the privileged. In urban neighborhoods, there were more pressing issues to consider.

The final chapter compares two of CBG's elementary education programs, one for urban children and one for suburban children, both founded in the late 1980s. The differences between these two programs was striking. CBG's urban program, named Collaborative OutReach Education (CORE), provided basic science instruction to third graders in the Chicago Public Schools, most often from the south and west sides of the city where poverty and people of color were concentrated, later expanding to first and fifth grade classrooms. Then, in the summer, students had the opportunity to travel to the suburban botanic garden by bus each week, finding an attractive, safe respite from the city and where they grew enough produce to take home and share with their families. In contrast, CBG implemented their Environmental Education in Action Program (EEAP) in suburban, mostly white schools on the wealthy North Shore of Chicago, and brought students from Winnetka, Skokie, Northfield, Wilmette, Evanston, and Glenview to local natural areas, hoping to inspire them to become the environmental leaders of the next generation while teaching them about the ecosystems of Illinois with attention to conservation and environmental issues. These programs were tailored to the educational

and social backgrounds of the students as identified by teachers, donors, and CBG staff. In the case of the suburban EEAP program, this meant that community members were actively involved in crafting the program, while outside funding for the CORE program put decision-making outside the hands of the community. Connected to this distinction was a difference in perceived success of the programs, with EEAP broadly praised and CORE ambivalently modified.

In all cases, however, it was a combination of personal leadership, funding, and the context of place that influenced how programs would be expressed in a particular neighborhood or institutional setting in cooperation with the Chicago Botanic Garden. While these interactions are common to nonprofits, governmental organizations, and other socially and environmentally-active organizations, here the focus is on CBG as a botanic garden. While the garden staff followed in the footsteps of others who had led socially-responsive horticultural programming before them, their programs deliberately extended the reach and influence of botanic gardens.

Chapter One: A Suburban Garden for Chicago

The Fragrance Garden for the Blind was an oasis. Filled with over a thousand pungently fragrant herb plants, those that entered—only people with limited eyesight and blindness and their guides—were met immediately with a wall of scent. Physical barriers had been removed to enhance both enjoyment and participation. Wide, smooth paths provided easy access to shaded glens and raised beds throughout the garden where visitors could feel the diverse textures of the herbs and hear an auditory oasis of wind and water. The Woman's Board of the Chicago Horticultural Society, all volunteers, had planned for the seasonal enjoyment of the garden as well, planting for successive blooms from the earliest violets of spring to petunias that would last into the heat of summer. The plants they chose were selected for their scents (lilies), textures (pansies), and colors (peonies). They were enjoyed with the aid of special identification labels printed in braille, used by both regular users of the garden and special tours for Chicago Horticultural Society (CHS) supporters.[1]

The garden was transformative for the land and users of the space. Previously a rubble-strewn acre and a half in the Near West Side neighborhood of Chicago, the garden was now a useable and safe space for blind clients of the Lighthouse for the Blind next door. Members of the Women's Board imported two thousand yards of black soil and six hundred trees and shrubs to the site to provide shade in the garden. Raised bed plantings of scented herbs like lemon balm, basil, and pine-scented geranium released their pleasant fragrances on the wind and when touched. Dedicated in 1957, the garden

[1] "Garden for the Blind Brochure," Folder 28: Garden for the Blind (Chicago) 1956-1961, Box 4002A, CHS. Robert Wiedrich, "Plan 'Garden of Braille' for the Blind: Symphony of Sound and Smell," *Chicago Daily Tribune*, March 7, 1956.

rapidly became a crowded place for employees at the Lighthouse workshop to enjoy their lunches. Seeing this frequent use, the Women's Board decided to add additional benches and a barbeque to their project list, which already included paving the garden's pathways. Just one part of the society's efforts to help those less fortunate through horticulture, the project attracted the devotion of eleven Women's Board members, many of whom drove in regularly from their homes in the suburbs (and beyond) to cultivate the downtown garden.[2]

Tours and the garden itself were early philanthropic ventures of the reinvigorated Chicago Horticultural Society, intended to compliment the Lighthouse for the Blind's new building. Tour participants donated fifty cents to see the garden, helping to fund upkeep of the project, but the Woman's Board, who spearheaded the project, contributed far more.[3] Their work provided a tangential solution to the problem of CHS's perpetual struggles with viability by enhancing the visibility of the Chicago Horticultural Society and its reputation as a local philanthropic organization of merit. For many years, benefit dinners were held to support the Garden for the Blind as a primary function of the Woman's Board of the Chicago Horticultural Society.[4] The Garden for the Blind also became a primary beneficiary for the Chicago World Flower and Garden show, alongside the society's other garden therapy programs.[5]

[2] "A Garden Lets Blind 'See' By Touch, Smell," *Chicago Daily Tribune*, August 1, 1957. Josephine Petry, "Garden Scents Provide Sight for the Blind," *Chicago Daily Tribune*, July 14, 1957.
[3] "Garden for the Blind Brochure."
[4] Mrs. C. Kenneth Hunter, "Notes from the Woman's Board," *Garden Talk* 4, no. 2 (February 1956), 2.
[5] "Flower, Garden Show to Benefit 4 Charities," *Daily Defender*, December 8, 1958.

This philanthropic project brought major outside recognition to the society. Reporters watched the garden closely as the project progressed, penning a call for financial support during the early development of the project, even before the lot had been cleared, and announcing the garden's opening, dedication, and tour days. The *Chicago Daily Tribune* took the lead over multiple years, with a variety of reporters marking the garden's progress and effusively describing its beauty and impact on the local community.[6]

The Garden for the Blind illustrates multiple functions of the Chicago Horticultural Society that would later be transferred to the Chicago Botanic Garden as part of its ongoing community horticulture programs. These included social impact as a primary organizational value through a largely suburban corps of donors and volunteers offering assistance to less fortunate urban residents alongside providing efforts to clean up physical pollution. However, while these were a mainstay of the society's and garden's programming and reputation, these were not articulated as central feature in the public campaign for the botanic garden's foundation. Instead, the garden's anticipated role as a leader on environmental research played center-stage, as its leaders sought to justify the garden and its proposed suburban location.

This was, in many ways, a pragmatic approach. Continuation of urban horticultural programs would not be a convincing argument for the establishment of a botanic garden, much less a suburban one. The establishment of a horticultural showpiece in a beautiful and distinctive location might have been a convincing argument.

[6] Thalia, "Plan Garden that Blind Can Enjoy," *Chicago Daily Tribune*, January 29, 1956. Petry, "Garden Scents Provide Sight for the Blind."

In the 1960s, however, environmental research and concerns aligned with the practical realities offered by the Skokie Lagoons. The area provided enough space for scientific trials, a variety of environments (especially ecologically-important wetlands), and sufficient distance from the city to reduce the effects of urban air pollution on the site. However, while educational courses and an impressive display garden were previously articulated goals of the society and part of their garden fundraising campaign, research was a newfound interest.

Framing the Context of a Botanic Garden's Establishment

The success of the Chicago Horticultural Society's campaign for a botanic garden at the end of the 1960s was particularly surprising given its limited previous success in attracting support of any kind—personal, political, or monetary. Originally founded in 1890, the CHS went dormant between the two world wars when its charter was revoked for failing to file paperwork in 1937. It was revived primarily through the enthusiasm of one leader, Fred Heuchling, who realized that Chicago, its city motto *Urbs in Horto*, provided an argument to build on victory gardens in order to become a bona fide garden city. So while the organization could trace its history back more than sixty years, it was still a rejuvenated and thus youthful organization in the 1950s, very much influenced by the vision Heuchling had begun to argue for in 1945.

Heuchling, who worked for the Chicago Park Department as the assistant director of Chicago's victory garden program during the war and had spent his career in various positions at the parks, was excited about the potential of these gardens for food

production, beautification, and community involvement.[7] He estimated that twenty thousand families gardened in community plots in the city of Chicago by 1943, along with thousands more who gardened at home. Chicago had 44,578 gardens, occupying 848 acres and the suburbs registered 32,609 gardens providing an additional 1,750 acres of cultivated land. These gardens included thirty thousand children's garden plots in parks and play areas, a community garden site that served over eight hundred families, and 1,500 vacant lots that the International Harvester Company helped to plow in preparation for planting. The National Victory Garden Institute, a business-funded, nonprofit that helped to coordinate the victory garden movement nation-wide, awarded the Chicago Parks Department a plaque for its exemplary program in 1943.[8]

Hoping to capitalize on this foundation of cooperative and horticultural interest, Heuchling believed that the Chicago Horticultural Society could serve to organize and promote the continued maintenance of these projects. In the process, he hoped to perpetuate the cultivation of the more than 91,000 individual garden plots registered in Chicago in 1944, a city of three and a half million people.[9] Such was Heuchling's enthusiasm, that, after retiring from the parks, he worked tirelessly and without pay for over ten years as the society's secretary (a position through which he led all of the society's major initiatives) in an attempt to make ongoing community gardening in Chicago a reality.

[7] "New Chief for Park Bureau," *Chicago Daily Tribune*, August 30, 1911.
[8] Laura J. Lawson, *City Bountiful: A Century of Community Gardening in America* (Berkeley and Los Angeles: University of California Press, 2005), 195-196.
[9] Fred G. Heuchling, "Shall Vacant Lots Return to Jungle?" *Garden Talk* 1, no. 2 (June-July 1945): 5. This number refers to garden plots within the city of Chicago itself and is higher than the number of gardens because each victory could include more than one plot, each cultivated by a different individual or family.

The Chicago Horticultural Society itself was reborn in the fall of 1943, after some members of the original organization realized that any ten members could call a meeting and revive the organization. Ten men and one woman did this, some of whom no longer even lived in the Chicago area. In 1945, they established new objectives for the society:

- Crystalize the popular interest in victory gardening and provide the means for perpetuating this interest in Chicago and suburban after peace comes,
- Conduct garden demonstrations or courses of instruction: to publish a bulletin or periodical; and to operate garden centers or horticultural museums.
- Be active in conserving, protecting and extending the horticultural beauties of Chicago and its suburbs,
- Help popularize gardening in every family in Chicago and its suburbs; and especially to direct these efforts to children.[10]

Heuchling would shepherd the organization toward these goals for over a decade, always striving and never quite realizing the society's or his own grand goals. Taken literally, Heuchling's dream of maintaining the gusto of the victory garden movement in Chicago was a failure. Only a few of those original gardens survived for an extended period. However, on a smaller scale, community horticulture programs administered by the Chicago Botanic Garden have realized many of their goals for community.

Liberty gardens during World War I were focused on food production, but by World War II, national farm production had increased such that food scarcity was not a major issue to be addressed. Instead, victory gardens were a way that families on the home front could express solidarity, and they could increase health, recreation, and morale in addition to food choice. At the National Defense Gardening Conference in

[10] Cathy Jean Maloney, *Chicago and Its Botanic Garden: The Chicago Horticultural Society at 125* (Northwestern University Press and the Chicago Botanic Garden, 2015), 17-18.

1941, Claude R. Wickard, Secretary of Agriculture, and Paul V. McNutt, Director of the Office of Defense, Health, and Welfare Services, listed official goals of the victory garden campaign:

- Increase the production and consumption of fresh vegetables and fruits by more and better home, school, and community gardens, to the end that we become a stronger and healthier nation.
- Encourage the proper storage and preservation of the surplus from such gardens for distribution and use by families producing it, local school lunches, welfare agencies, and for local emergency food needs.
- Enable families and institutions to save on the cost of vegetables and to apply this saving to other necessary foods which must be purchased.
- Provide, through the medium of community gardens, an opportunity for gardening by urban dwellers and others who lack suitable home garden facilities.
- Maintain and improve the morale and spiritual well-being of the individual, family and nation.[11]

These goals were to some extent practical, providing food for families and communities, but they were also ambitious and abstract, suggesting that a garden could build a healthier nation in terms of attributes from nutrition to spiritual well-being.

While these national goals are not identical to those adopted by the Chicago Horticultural Society, they are reflected in the society's developing plans, which also recognized how the "popularization of gardening to all" expanded places and information available to individuals who might otherwise not be equipped to garden.[12] They focused on education of the public through multiple media. The CHS also added another goal, "expand horticultural beauties," not clearly reflected in the victory garden movement; however, this aesthetic improvement could improve the morale of the neighborhood. Of

[11] Lawson, *City Bountiful*, 175.
[12] Maloney, *Chicago and Its Botanic Garden*, 17-18.

course, the first goal of the society was to "crystalize popular interest in victory gardening," which implies that they hoped to capture most, if not all of what appealed about victory gardening, namely food, through a popular social network tied to horticulture, and public education around gardening. Though the links between community garden programs that sprang up in the 1970s in New York, and later Chicago and victory gardens was not always direct, the latter sought to address similar underlying issues. Urban challenges of the 1970s looked very different on the surface than those of the 1940s, but community networks, nutrition, and morale were still viewed as at least partial solutions to underlying issues.

The goals of CHS, more fully realized in later decades, were taking shape almost immediately in 1944 and 1945. In 1944, members began a project to beautify the Vaughan General Hospital, beginning a legacy of therapeutic work. In 1945, a more robust public presence was established with projects to disseminate information about horticulture to people throughout Chicago, publish a bulletin entitled *Garden Talk*, and establish a garden information center in the Chicago Public Library downtown. To connect their work with the victory garden movement, the society cohosted a post-war Victory Garden Round-Up with the Chicago Park District at Soldier Field to celebrate the harvest in September.[13]

In 1952, Heuchling initiated hobby groups for office and industrial workers across Chicago, arguing that they would reduce absenteeism. He believed, "There's something in a good gardener that makes him a good citizen…being a firm believer in nature, [he] has a high respect for law and order." The program would be an extension of successful

[13] Maloney, *Chicago and Its Botanic Garden*, 19.

trial runs the previous year at such work sites as Pabst Sales, Republic Flow Meter, and General American Transportation, where everyone from entry-level workers to vice presidents had gotten involved. Albert C. Buehler, chairman of the CHS board and president of the Victor Adding Machine Company, was similarly optimistic about the programs' benefits for companies, saying, "Good gardeners are bound to be good citizens. They use their leisure in a creative and absorbing way instead of frittering it away in less wholesome pursuits."[14]

Alice Burlingame, a leading expert in horticultural therapy from Michigan State University, visited the society in January 1959 at the invitation of society president Dr. R. Milton Carlton. Her talk was a public presentation, advertised to professionals and community members more generally in the Chicago area. It was also closely related to the society's existing programs. Since 1957, members had been developing garden therapy programs at four Chicago schools for handicapped children.[15] A new horticultural therapy program would develop, with the support of experts like Burlingame and advocates like Carlton, into one of the society's longest-running community horticulture programs or programs of any kind.

The CHS was aptly-positioned to address the community's horticultural needs because a lack of garden display space made them more nimble, but it had other

[14] "Area Workers Begin Garden Hobby Project," *Chicago Daily Tribune*, January 20, 1952. The idea that working with gardens, as a form of working with nature, could help children and adults become more integrated members of society or even more productive ones was not a new one. It reprised old arguments from the turn of the twentieth century, like those given to support nature study in urban areas. Sally Gregory Kohlstedt, *Teaching Children Science* (Chicago: University of Chicago Press, 2010).
[15] "Call Meeting on Gardening's Therapy Value," *Chicago Daily Tribune*, January 4, 1959.

challenges. The effort to maintain its active membership and fund its programs was demanding for its staff and volunteers. CHS struggled to find its niche in Chicago. It inadvertently competed with local garden clubs and professional organizations for support and participation. Even in the mid-1950s, its membership was comprised almost entirely of members of its executive boards, and especially the Women's Board, which, like fellow women's boards throughout Chicago, had an oversized impact on the fundraising capacity and programmatic goals of the institution. As the CHS struggled to raise income to supplement its tiny budget and faced the impending retirement of Heuchling, the society hired the Pope and Ballard law firm to conduct a study on methods to improve its sustainability.[16]

The recommendations from John Nordberg, a legal consultant, and from society's leadership suggested that CHS move in two separate directions. The first was into the suburbs. Suburban growth had become a significant influence on the Chicago region—so much so that Nordberg suggested the CHS the Greater Chicago Horticultural Society to encourage membership growth. Between 1945 and 1955, 68,661 homes were built in Chicago, with 227,150 constructed in its suburbs, leading to a municipal prediction that by 1980, there would be more residents of the suburbs than Chicago proper.[17] Statisticians actually overestimated the time it would take for the suburbs to overtake the city; this had happened by 1970. Nordberg suggested that CHS capitalize on this growth

[16] An associate member paid only one dollar, while full members paid five dollars amounting to very little income from a small number of members. "Membership," *Garden Talk* 1, no. 1 (January 1953), n.p. Pope and Ballard, "Report of Chicago Horticultural Society Survey Committee," March 23, 1956, Folder 3: Report of Chicago Horticultural Society Survey Committee, Box 52, CHS.
[17] Pope and Ballard, "Report of Chicago Horticultural Society Survey Committee."

in garden opportunities with an inclusive name and an inclusive leadership structure, allowing for semi-autonomous local committees in the northern, western, and southern suburbs.

By 1955, CHS had expanded its program of lectures and classes to suburban hubs in addition to its downtown headquarters. People who worked downtown could attend thirty-minute lunchtime lectures at the Chicago Public Library, but they could also take their wives and husbands along to more extended courses closer to home in the evenings. Offerings were available in Lake Forest, Evanston, River Forest, and Broadview throughout the spring. Members of the society could attend for free. Admission for the public was fifty cents for courses that were aimed to help new homeowners with the maintenance of their home landscaping.[18] Chicago was being reborn as a hub with suburban spokes radiating for tens of miles beyond the city limits even as the region wrestled with the developing and increasingly complicated urban-suburban relationship. As the suburbs and CHS' botanic garden plans developed, the challenges and impacts of this divide increased.

Another important aspect of this early rebranding was a focus on diversifying the society's membership, something that would be necessary to achieve the society's early stated goal of reaching every family in Chicago. Nordberg reflected on the issues when he suggested he did "not know the attitude of the Society as to the type of members desired. However, if the Society really wants to be of concrete use horticulturally, it should serve, work with, and have as active members those from the poorer minority

[18] "Events," *Garden Talk* 3, no. 2 (February 1955): 2.

groups—immigrants, colored, and men."[19] To capture this diversity, he suggested steps including affiliation with local clubs and the continuation of projects like the Garden for the Blind. He offered, as examples, the Brooklyn Botanic Garden's garden for the blind and the *Chicago Daily News*' planting project with the Chicago Housing Authority. If the local newspaper could lead a neighborhood greening project, certainly the horticultural society should be able to. The Woman's Board took his advice and created a garden at the Lighthouse for the Blind the following year.

A long–term solution to member cultivation and reputation development included a focus on children. Through partnerships with teachers, schools, and civic organizations, Nordberg argued, the CHS could "take positive action toward drying up the cesspools that breed crime [by] organiz[ing] junior garden clubs—especially in blighted areas."[20] Redlining maps, created in the late 1930s, indicate that the Lighthouse for the Blind was located in one of these areas.[21] By creating gardeners rather than juvenile delinquents in these areas, he argued, CHS would gain members. They would also provide an outlet for creative energies that was culturally positive—the kind Jane Addams might have suggested.[22] It also complemented the logic of victory gardens as community-builders and organizations that could funnel resources toward the less

[19] Pope and Ballard, "Report of Chicago Horticultural Society Survey Committee."
[20] Pope and Ballard, "Report of Chicago Horticultural Society Survey Committee."
[21] Robert K. Nelson, LaDale Winling, Richard Marciano, Nathan Connolly, et al., "Mapping Inequality," *American Panorama*, ed. Robert K. Nelson and Edward L. Ayers, accessed July 31, 2019, https://dsl.richmond.edu/panorama/redlining/#loc=13/41.872/-87.62&maps=0.
[22] Helen Lefkowitz Horowitz, *Culture and the City: Cultural Philanthropy in Chicago from the 1880s to 1917* (Lexington, KY: The University of Kentucky Press, 1976), 120-139.

fortunate. While there is no clear indication that CHS actively sought members from "blighted areas" in the 1950s, their community horticulture programs throughout the second half of the twentieth century would operate under related logic.

Notably absent from this report was the idea that CHS should become a leader in botanical research. There was some discussion about serving the interests of horticultural professionals, but this was through advocacy and networking rather than research. The members of CHS, while still unsure about the ultimate focus of the society, were, implicitly, in agreement about its relationship to intended constituents. It was to be an organization that worked directly with the public, providing information, education, and intervention about horticultural topics as the need arose locally. In this model, the public was served not by the creation of new knowledge or by pushing the boundaries of science but rather would benefit from direct contacts and constructive activity.

Despite their clear vision of public service and focus on these programs, the garden struggled to develop broader public support. In 1957, society president Dr. R. Milton Carlton began a campaign to develop a permanent endowment for the society that would provide it with an income stream beyond membership dues and individual contributions. In the *Chicago Daily Tribune*, the main arguments for support were its public outreach activities, the fragrant garden for the blind, which had been funded by the woman's board to the tune of $50,000 already, and school garden projects in the classrooms of Chicago Public Schools.[23] The solicitation failed.

[23] "Garden Group Making Drive to Get Funds: Horticultural Society Seeks Endowment," *Chicago Daily Tribune*, January 14, 1957.

Nonetheless, the CHS had realized modest levels of impact in community service, with programs like the garden at the Lighthouse for the Blind and horticultural therapy programs for school children. Begun by another volunteer, Virginia Carlson, this program brought planting, flower arranging, and other horticultural experiences to children with disabilities at schools across the city.[24] Along the way, public service became embedded as a value that was both philosophically central and financially crucial to the organization's survival. Public service had become fundamental in the ethos of CHS and the members continued to develop these public programs after Fred Heuchling's retirement in 1960.[25]

Many of the Chicago Horticultural Society's members lived in or were moving to the suburbs, quite literally in all directions, while some remained in wealthier areas along the downtown lakeshore. While anyone could attend lectures, most members continued to be from affluent backgrounds. Maintaining city activities made sense both because of traffic patterns that brought employees downtown to work but also because it was still a central location for residents that had dispersed throughout the region. Thus, deciding to create a garden in the northern suburbs as the hub of society's horticultural activities would dramatically change the membership dynamic as well as the essential programs of the society.

Pullman's Push for a Botanic Garden

[24] See chapter two for more information about this program.
[25] "Fred Heuchling Leaves Garden Society Post," *Chicago Daily Tribune,* August 21, 1960.

Reflecting its goal of making the city's motto, *Urbs in Horto*, a functional reality, the society undertook a major step in the 1960s. William Allen Pinkerton Pullman, who became president of CHS in 1960, had large goals for the garden, encompassing education, philanthropy, and beautification of the city.[26] As the grand-nephew of George M. Pullman, manufacturer of Pullman cars, and the great-grandson of detective Allan Pinkerton who had notoriously enforced Pullman's rules, Pullman was not short on the social and financial connections to make these dreams a reality.[27] Building on the success of the Garden for the Blind, Pullman thought the society should capitalize on the attention it was receiving from horticultural groups in other cities as it expanded programming to handicapped children confined to wheelchairs. Reflecting urban pride, he also added to the list of institutional goals, in 1959, the creation of a Chicago botanic garden "presumably in the rather remote future," to remedy Chicago's deficit as the "only great metropolitan community without a botanical garden."[28] While the idea for physical expansion of CHS was nothing new, June Reedy, former chair of the Women's Board likened Pullman's idea to the explosion of an atomic bomb.[29] She was shocked by what seemed an impossible goal.

[26] William A.P. Pullman, "A Brief Statement Concerning the Chicago Horticultural Society" ca. 1959, Folder 3: Historical Overviews 1950-1968, Chicago Horticultural Society, Long Range Planning Reports & Mission Statements 1950-1962?, Box 52, CHS.
[27] Kenan Heise, "William Pullman, 87, Set Up Botanic Garden," *Chicago Tribune*, November 23, 1988.
[28] Of course, this claim should be understood critically. Pullman himself recognized that Chicago did already have the Morton Arboretum and thus a major horticultural institution. It is also true that Houston, the seventh largest city at the time, also lacked a botanic garden. In fact, it is only now, in the second decade of the twenty-first century, in the process of acquiring one. Pullman, "A Brief Statement Concerning the Chicago Horticultural Society."
[29] Maloney, *Chicago and its Botanic Garden*, 41.

Pullman's goal was a large and significant botanic garden, which he described in some detail:

> "Artistically and esthetically, a Botanic Garden is a park of great beauty where gardens of flowers, trees, shrubs, vegetables and grasses are grown and where these complement a natural habitat for native wildlife. But more than a place of beauty, a Botanic Garden is an educational institution of the teaching of all aspects of gardening—and such related subjects as plant identification, propagation, hybridization, botany for beginners, landscape architecture and conserving. It is a place where research is constantly being carried on for the direct benefit of the people of the area."[30]

Included in Pullman's vision were the three historically critical aspects of a botanic garden: an artistic landscape, educational offerings, and research.[31] The order and way in which these aspects are articulated is telling. A beautiful landscape comes first. Having a landscaped garden space of their own has long been a dream of the members of CHS, and this piece of the project was emphasized during its conception and construction. In particular, beauty was a primary factor in site selection. Education, already a part of CHS' mission and programming was, of course, included as a purpose for the garden. Both of these are encompassed by the stated goals of the society after 1945. Research, as a goal, was new to the society although certainly reflected the origins and tradition of botanic gardens around the world. Experimentation and research were to be conducted at the botanic garden "for the direct benefit of people in the area." So, Pullman's vision was more local than those of the well-established New York Botanical Garden with its

[30] Chicago Horticultural Society, "Why a Botanic Garden for Chicago?" 1964, CHM.
[31] Others including Nathaniel Britton have similarly laid out the role of a botanic garden. Hugh H. Genoways and Mary Anne Andrei, *Museum Origins: Readings in Early Museum History and Philosophy* (Abingdon, UK: Routledge, 2009), 227.

emphasis on more general basic science and specimens gained during the expansionist neocolonial period in the early twentieth century.

As he became the garden's leader in 1960, Pullman realized that his initial plan to identify a named donor for this garden would need to be made more realistic, because no one stepped forward with sufficient funds for founding and maintenance of the grand project he envisioned.[32] Instead, he looked to the Brookfield Zoo as a model. Located on land owned by the Forest Preserves of Cook County, the Zoo had a long-term lease on the land and was eligible for annual tax support from the state of Illinois. It seemed to Pullman and other advocates that a botanic garden, similarly an outdoor museum dedicated to education and research, might be able to achieve the same agreement with the city, county, and state.

With the help of outside experts, including George Avery Jr., director of the Brooklyn Botanic Garden, by 1962 Pullman and the leadership of the Chicago Horticultural Society had determined that the Skokie Lagoons, in the north shore suburbs of Chicago, would be an ideal location for the garden.[33] More specifically, the garden would occupy the northernmost section of the lagoons. Avery described the area as a "rare combination of varying topography, insular isolation, and delightful water vistas." He continued, "I am not familiar with a botanic garden setting anywhere that would excel or perhaps even match this one in its native beauty and desirability."[34]

The Skokie Lagoons were already a human-constructed landscape. Originally referred to by the indigenous Potawatomi people as *Kitchi-wap choku* and by Chicagoans

[32] "Fred Heuchling Retires," *Garden Talk* 8, no. 8 (August 1960): 2.
[33] Maloney, *Chicago and its Botanic Garden*, 42.
[34] Chicago Horticultural Society, "Why a Botanic Garden for Chicago?"

of European descent as the Skokie Marsh, the lowland marshes along the western shore of Lake Michigan were a remnant of Glacial Lake Chicago.[35] In total, the Skokie Marsh was twenty miles long and ranged from one quarter of one mile to one mile wide as it drained into the north branch of the Chicago River. The land was ecologically diverse, supporting an abundance of bird, mammal, and fish species. By the late nineteenth century, however, flooding, mosquitoes, and a hunger for farmland—all symptoms of an expanding population—prompted settlers to attempt to drain the marsh.[36] The project to drain the land was never entirely successful, but a reduction in the water table did result in the creation of dried peat—the perfect matrix for new and frequent fires on the marsh landscape.[37]

Following the turn of the twentieth century, the Forest Preserve District of Cook County began buying up the marshland with a plan to use it for flood control, a waterfowl refuge, and a recreation area. In a fortuitous turn of events, Franklin Delano Roosevelt designated the massive project of turning the Skokie Marsh into the Skokie Lagoons as a Civilian Conservation Corps project in 1933—the largest in the nation. In a project that employed over a thousand young men and even outlasted the CCC (and was completed by the Works Progress Administration), five million cubic yards of soil were dug out, five hundred thousand trees and shrubs were planted, and four concrete dams were constructed to create seven lagoons and a one-hundred-ninety-acre recreation area.[38]

[35] Charles Shabica, "Swamp Secrets: The Natural and Unnatural Evolution of the Skokie Lagoons," *Winnetka Historical Society Gazette* (Fall/Winter 2012).
[36] Shabica, "Swamp Secrets."
[37] Shabica, "Swamp Secrets."
[38] Katherine Macica, "The Skokie Lagoons," Skokie Lagoons: Constructed Nature, Winnetka Historical Society, December 2012,

As a suburban conservation project, the Skokie Lagoons were exceptional, preserving wetlands in a period before the post-war building boom decimated them nation-wide. According to Adam Rome, before 1945, builders did not have the equipment to flatten steep slopes and fill in large wetlands to make them suitable for subdivisions.[39] The calculus made sense then, in 1933, to develop the Skokie Lagoons as a flood control and park project. The result was a rare amenity that could be enjoyed by North Shore residents and make an amphibious home for the botanic garden. By the time that some civil engineers and conservation officials were convinced by conservationists, scientists, and public officials that open spaces and wetlands in neighborhoods had an important purpose—the prevention of flooding—in the early 1960s, many of these naturally occurring spaces were gone because the technology to fill then in had been developed.[40] The Skokie Lagoons, however, were still there to soak up runoff like a sponge after a storm, surrounded by woodlands with trees that could help with water retention.[41] Their value for just this purpose would become clear as the botanic garden adapted them over the intervening decades.

When John E. Bradshaw, a Canadian horticultural celebrity, compared the proposed site for the Chicago Botanic Garden to the Keukenhof Gardens in Holland, he was making a comparison more apt than he realized. The Skokie Lagoons' soggy location and intense reconstruction made an analogy to the low-lying Netherlands and

https://skokielagoons.omeka.net/exhibits/show/exhibit/creating-the-lagoons/the-skokie-lagoons

[39] Adam Rome, *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism* (Cambridge, UK: Cambridge University Press, 2001), 121.
[40] Rome, *The Bulldozer in the Countryside,* 156
[41] Rome, *The Bulldozer in the Countryside,* 124

their elaborate flood control systems entirely appropriate, though Bradshaw was likely simply referring specifically to the juxtaposition of aquatic and terrestrial landscapes. Bradshaw was a big-name supporter for the garden project and better known among the public than Avery. In Toronto, Bradshaw had an impressive horticultural media empire. As early as 1950, he was on air at CFRB hosting farm programs, and by 1976, twenty-seven percent of the radio listening audience was tuning in to his program.[42] In 1964, Maclean's profiled him saying, "Bradshaw is to Canadian gardening what Goren is to bridge or Dr. Spock to babies."[43] With a regular horticultural column syndicated in multiple Toronto papers, Bradshaw's column was about to be circulated in Chicago, too. Across America, he was best known for his sixteen-volume "Complete Guide to Better Gardening," published in 1961, which helped homeowners learn how to maintain everything from the lawn and shrubs to houseplants and cut flower gardens. He was a horticultural celebrity lending credence to what would become a primarily horticultural (rather than botanic) garden.

Pullman and his team of experts also considered more practical concerns as they selected the garden's location. Its large size, well-protect boundaries between more park land to the east and the highway to the west and its location outside the pollution of the city made it an appealing suburban oasis.[44] Pullman believed that the driving distance, about thirty minutes, seemed appropriate because it was the same amount of time that it

[42] "CFRB-AM," History of Canadian Broadcasting, accessed October 10, 2019, http://www.broadcasting-history.ca/listing_and_histories/radio/cfrb-am. "A New Day in Gardening Communications," *The Londoner*, November 14, 2016.
[43] "Profile: John Bradshaw: The Man Who Got Rich by Making Gardening Sound Easy," *Maclean's*, November 16, 1964.
[44] Chicago Horticultural Society, "Why a Botanic Garden for Chicago?"

took to drive to the New York Botanical Garden or Brooklyn Botanic Garden from Manhattan and that there were two trains nearby from which the garden could be reached.[45] Additionally, the Garden would be the first major museum in the northern suburbs and would draw visitors from its expanding population, making a move to the suburbs a fiscally sound decision as well.

The northern suburban residents were especially sought not only as visitors to the garden but also as patrons. Dubbed the North Shore, these suburbs included Lake Forest, Glencoe, Winnetka, Lake Bluff, Wilmette, Highland Park, Evanston, and Kenilworth and were some of the most affluent and exclusive municipalities in the United States by the 1960s.[46] The surest way to develop philanthropic partners would be to build a relationship with them, and what better way to do so than to locate yourself in their own backyard? Other botanic gardens have prudently courted the elite at their founding as well. The New York Botanical Garden, for example, was founded, in part, as a green retreat for wealthy New Yorkers who sought to recreate an exclusive horticultural oasis after the democratization of Central Park.[47] The founding narratives of CBG and NYBG have interesting parallels.

In the 1950s, the suburbs were becoming a place where people wanted to be. Moreover, in addition to offering more open space to develop, a botanic garden in the suburbs would also have more security against the forces of decay believed to be

[45] He mentions trains, but they have never really been used as a means to get to CBG as the nearest station is too far away to be a convenient walk. His suggestion of driving time is also optimistic.
[46] Exclusive meaning both expensive and also discriminatory against non-white homebuyers. "Few Homes Found Open to Negro Buyer," *Chicago Tribune*, June 15, 1967.
[47] Mickulas, *Britton's Botanical Empire*, 65.

operating in the downtown areas that the suburban residents had abandoned. Kenneth T. Jackson has pointed out that the suburbs were known for a more pastoral, lower-density landscape, one which logically lent itself to a botanic garden. The suburban landscape also offered respite from urban pollution, a growing concern during the period among the general public and botanic garden developers. Gardens like the New York Botanical Garden were increasingly struggling to maintain unique and valuable collections against an onslaught of vehicle and industrial air pollution. In addition to providing space for an expansive horticultural landscape, however, Jackson suggests another reason space became increasingly important for commercial and public ventures in the middle of the twentieth century—parking. As the suburbs and car culture grew, low-density suburban areas became the preferred location for department stores and shopping malls because they could offer ample free parking.[48] The Chicago Botanic Garden could offer this as well.

As Pullman chose the site for CBG, he understood these factors. As a new garden seeking to address current space needs, CBG really did need a suburban location. There was not space in the central city. Pullman justified the suburban location by noting there would be fewer concerns about trespassing and vandalism in lower-density and wealthier neighborhoods. His plans also underscored the exclusivity of the garden. In 1969, roundtrip rides from downtown were offered for an open house of the new garden, "for those who do not drive," but they charged the high price of $2.50 per person.[49] For those

[48] Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (Oxford: Oxford University Press, 1984), 11 and 257.
[49] Art Kozelka, "New Chicago Botanic Open House to Be Saturday," *Chicago Tribune*, October 5, 1969.

who had a car, ample parking was provided. Though Pullman was purposefully focused on positive aspects of the new garden he sought to promote, he demonstrated very little concern for CHS's shift away from a mission to serve all Chicago families in a central downtown location.

Pullman knew how to employ the power of persuasion. For weeks in 1963, Pullman hounded the head of the Cook County Board, Seymour Simon, persistently, visiting him multiple times a week to discuss his dreams of an expansive botanical garden on the Skokie lagoons in Glencoe. In the end, this vision was one Simon shared—and one he was willing to support even in the face of a contrarian Chairman of the Board's Finance Committee, George Dunn. Parried politically with arguments about the garden as a suburban waste of taxpayer money—in Republican neighborhoods, no less—Simon pushed on. With the help of his professional network, Simon enlisted Eric Oldberg, a leading neurosurgeon, head of the symphony, president of the Chicago Board of Health, and friend of the mayor, to speak to Mayor Richard J. Daley and convince him to side with the garden. With the chairman and the mayor on the same side of the debate, there was little Dunn could do but agree to the plan.[50]

While mayoral support may have been key in any large city, this was especially true in Chicago. Richard J. Daley, mayor of Chicago from 1955 until his death in 1976 has been called "the most powerful local politician America has ever produced."[51] His

[50] Seymour Simon, "Transcript of Talk Given to Phi Beta Kappa Association of Greater Chicago Area," January 21, 2001, Folder 7: Transcript of speech by Seymour Simon on beginnings of CBG, Box 2006, CHS. Simon did not regret his support for the garden. In 2001 he said, "in those days…I couldn't imagine that the botanic garden would turn out to be the great magnificent thing that it is."

[51] Adam Cohen and Elizabeth Taylor, *American Pharaoh: Mayor Richard J. Daley: His Battle for Chicago and the Nation* (Boston: Little Brown and Company, 2000), 7.

role as the leader of Chicago's Democratic machine meant that his power was far more than local—his power extended far enough to play a role in selecting Democratic candidates for president—but his power in Chicago was nearly absolute. If Daley supported an issue, so did the rest of the Democrats, and they were the majority. Despite being in the middle of a busy campaign for mayor at the beginning of 1963 (elections were April 2), Daley chose to support the botanic garden project in Glencoe, despite it having no obvious political benefit for him. Ever-focused on the political game, this choice was perhaps uncharacteristic, but it was practically the kiss of success for government support of the project, even at the state level.

With the assistance of colleagues at the Brookfield Zoo, Pullman drafted a bill for the state legislature that changed only a few words and would enable the Forest Preserves to develop a botanic garden at Skokie Lagoons and to collect a .0048 percent property tax in Cook County to fund the project by raising a projected $700,000 annually.[52] With the support of Pullman's forceful leadership and his phone calls to the legislature, the house passed the botanic garden bill, as introduced by Frances Dawson of nearby Evanston, 147-7 in June 1963, followed by a 48-0 vote in the house. Governor Otto Kerner Jr. signed the bill into law on August 19, 1963. As part of the agreement with the Forest Preserves of Cook County, the Chicago Horticultural Society could move forward with

[52] Robert P. Wintz, "A Society on the Move," Folder 3: Historical Overviews 1950-1968, Chicago Horticultural Society, Long Range Planning Reports & Mission Statements 1950-1962?, Box 52, CHS. Maloney, *Chicago and its Botanic Garden*, 44. Chicago Horticultural Society, "Why a Botanic Garden for Chicago?"

their project only if they could manage to fundraise one million dollars in support before January 1, 1966.[53]

The Chicago Horticultural Society used multiple arguments to justify funding for the botanic garden as they solicited their matching funds. Education was primary. The garden would offer courses for everyone—beginners, children, and specialists, and it would serve "the entire community" by offering information relevant to urbanites and suburbanites though "lectures, classes, horticultural movies" and "supervised work in garden and greenhouse for adults and children."[54] Over time, they did indeed offer courses for children and adults on a variety of topics, including ecology and evolution, wildflower identification, and winterizing and protecting home gardens.[55] The staff and visitors favored topics like interior decorating and flower arranging, reflecting those that had been offered downtown at the horticultural society's headquarters, with wheat weaving and corn husk crafts as perennial favorites.[56] The new venue, however, meant that the society's downtown headquarters need for housing staff and presenting programs gradually eroded over1970s, re-centering the suburban garden as the place for the society's educational opportunities.

Environmental Research at the Botanic Garden. A Dream.

The garden was intended to be a kind of contemporary museum, with a focus on hands-on horticulture experiences. It was also intended to be a center for research

[53] Suzanne Carter Meldman, "The City and the Garden: The Chicago Horticultural Society at Ninety," 3, Meldman, Suzanne Carter Manuscript File, CHM.
[54] Chicago Horticultural Society, "Why a Botanic Garden for Chicago?".
[55] "Botanic Garden Cources [sic] Offered," *Chicago Metro News*, September 13, 1980.
[56] "Botanic Garden Schedules Fall Classes," *Chicago Metro News*, September 11, 1982.

"useful to the Chicago region."[57] This meant horticultural research related to plant breeding, non-toxic or less toxic pesticides, and bird and insect conservation. Local suburbanites sought new plant varieties and were well-educated readers who had become aware of the impact of pesticides on bird and insect health by reading the recent best-selling book by Rachel Carson, *Silent Spring*. The intention to establish research related to the local environment was timely. As a result, the gardens' research goals captured the imagination of supporters, especially Art Kozelka, the *Chicago Tribune*'s garden editor. Kozelka never failed to mention a research program at the garden alongside its displays and educational goals. "Staff members will conduct a research program to improve plant material useful in the Chicago region, as well as research on air pollution and pesticides," he wrote in an update about the garden's development in 1968.[58] In 1969, he mentioned "full facilities for horticultural research and education."[59] Kozelka, a horticulturalist himself who was trained in agricultural journalism and botany at the University of Nebraska, was a career-long supporter of the Chicago Horticultural Society and its botanic garden. He shared his zeal for the possibility of a botanical or environmental research program with readers across the city. In 1975, CHS recognized his contributions to their cause and the promotion of horticulture in Chicago more generally by awarding him the Charles L. Hutchinson medal, their highest award.[60]

[57] Chicago Horticultural Society, "Why a Botanic Garden for Chicago."
[58] Art Kozelka, "Landscaping by the Experts," *Chicago Tribune*, October 27, 1968.
[59] Art Kozelka, "New Chicago Botanic Open House to Be Saturday," *Chicago Tribune*, October 5, 1969.
[60] "Art Kozelka Gets Top Horticulture Award," *Chicago Tribune*, April 6, 1975.

Still, proud of this research goal, fundraising campaign supporters included George W. Beadle, President of the University of Chicago and Nobel Prize winner. He wrote,

> "I am enthusiastically in favor of this project, for it will fill a real need in metropolitan Chicago. Unlike other large urban centers, we do not have a botanical garden of this kind. It will meet a growing need for recreation, education and for research in the art and science of growing horticultural plants. As a person interested in horticulture, both personally and as a professional botanist, I sincerely hope the project can go forward with minimal delay."[61]

Having won the Nobel Prize in Physiology or Medicine in 1958 for his work on *Neurospora*, Beadle was, by the mid-1960s, only a botanist insofar as he called himself one, aspiring to be connected to some historical strain of the new amalgamation that was the biological sciences in the post-genetic synthesis period. Still, Beadle, often known by his nickname Beets, had grown up on a farm, published his first paper on grassland ecology in Nebraska, and begun his graduate work at Cornell by studying corn genetics.[62] His career trajectory in fact reflected much of what had been happening in the biological sciences over the course of the twentieth century.

His background as a horticultural advocate and well-respected academic meant his support brought research-related cache to the garden. After arriving at the University of Chicago as president, Beadle was appalled by the campus landscape where the students trod indiscriminately on grass. When replanting efforts failed, Beadle and his

[61] Chicago Horticultural Society, "Why a Botanic Garden for Chicago."
[62] Norman H. Horowitz, "George Wells Beadle, October 22, 1903-June 9, 1989," *Biographical Memoirs of the National Academies of Science, Engineering, and Medicine* 59 (1990): 27-29.

colleagues formed the Interdisciplinary International Committee on Grass.[63] Since, the usual "Keep Off the Grass" signs was not working, the committee devoted themselves to more attention-getting slogans: "Don't Tread on Me," "Don't Coup De Grass," and "Sparing O' the Green" they read, in addition to a number of multi-lingual puns and messages. These signs were so effective they caught the attention of the student newspaper and the *New York Times*.[64] More personally, Beadle enjoyed gardening as a hobby and grew corn behind the president's mansion on campus.[65] After completing his term at the University of Chicago in 1968, Beadle's gardening aspirations expanded as he became the president of CHS in 1968, leading the organization during the garden's early development until 1971.

The garden project was also supported by Chicago's elite and its conservation organizations. Dr. Eric Oldberg, head of the Department of Neurology and Neurosurgery at the University of Illinois and professional friend of Pullman, supported the botanic garden in print, just as he supported it by showing up to the mayor's office to impress the benefits of the project on Daley. The local Izaak Walton League in Glenview voted in favor of public support for the project, which they believed to be in alignment of their focus on conservation of public lands. The campaign was also exceedingly successful

[63] Muriel McClure Beadle, "The Grass Problems at UChicago in the Early 1960s," *UChicago Magazine,* June 6, 2017, https://mag.uchicago.edu/university-news/grass-problem-uchicago-early-1960s, from Muriel Beadle, *Where Has All the Ivy Gone? A Memoir of University Life* (Chicago: University of Chicago Press, 1972). See also: Muriel Beadle, *The Fortnightly of Chicago: The City and Its Women 1873–1973* (Chicago: Regenery Publishing, Inc., 1973).
[64] "New Front Group Rife at Chicago U.; 'Green International' Seeks Grass-Roots Influence," *New York Times*, November 26, 1961.
[65] Glenn Fowler, "George W. Beadle, 85, Geneticist and Nobel Prize Winner, Is Dead," *New York Times*, June 12, 1989.

among the broader community, with funds pouring in from the Chicago Community Trust, the Woods Charitable Fund, and the Field Foundation of New York, as well as tens of individual contributions. CHS reached its goal a year early and signed an official partnership agreement with the Forest Preserves of Cook County on January 27, 1965. Ground was broken in September that year.[66]

Before gardens could be developed, however, the site's water management infrastructure had to be rebuilt to make the site suitable for a garden. Not included in the original plans for the garden, a mile long, forty-eight-inch diameter concrete conduit was built along the west side of the Skokie Lagoons and botanic garden site to divert polluted water from the Skokie River away from the new botanic garden.[67] While the initial project, costing $250,000, worked well, a subsequent adjustment, involving the construction of a dam at the southern part of the botanic garden 1968 became a point of conflict between the garden and its neighbors. In the spring of 1969, four nearby golf courses and more than one hundred homes flooded following heavy rains for the first time since 1940.[68] They blamed the botanic garden. After the governor sent an official from the Illinois Division of Waterways to determine a solution to the flooding, a report was filed but not made available to local government. They speculated that the dam was a major cause of the flooding alongside contributing factors including excessive rain, inadequate drainage in the area, and a greater amount of building in the area. Ultimately, a multi-pronged approach, including modifying the dam, widening the east branch of the

[66] Wintz, "A Society on the Move."
[67] "Ground Broken for Gardens; Expected to Open in 4 Years: 5-Million-Dollar Site Located Near Glencoe," *Chicago Tribune*, September 26, 1965.
[68] "Four Golf Courses, Botanic Park in Feud," *Chicago Tribune*, June 11, 1969.

Skokie River, and fixing the dam's pumping station provided a solution to the problem.[69] Still, environmental impacts related to flooding remained an ongoing concern for the garden.

Conclusion

The establishment of the Chicago Botanic Garden in Chicago's northern suburbs could not be considered an unmitigated success with regard to its environment, social and educational impact, or its research aspirations. The Skokie Lagoons and their environs provided an aesthetically pleasing setting for the botanic garden and one removed from the air pollution of downtown industries. They also facilitated the creation of a botanic garden covering over three hundred acres in a less densely developed suburban landscape. However, the landscape was still anything but pristine, heavily managed by previous flood control projects and used for recreation and commercial interests that came into conflict with the garden's use of water resources.

As a suburban institution, the botanic garden advantaged some social relationships and stressed others. It was now even more visibly separated from high-density urban neighborhoods challenged by poverty and violence. The location reduced issues of personal security that continued to be faced by peers, namely the Missouri Botanic Garden, New York Botanical Garden, and Brooklyn Botanic Garden. At the same time, CHS moved farther away from Chicago's center of population and nearly the entire swath of Chicago residents with whom they had developed relationships over two

[69] "Highland Park Residents Join Lagoon Feud," *Chicago Tribune*, June 12, 1969. "Highland Park Seeks Flood Aid," *Chicago Tribune*, July 17, 1969.

decades. While these outreach programs continued, they became logistically and relationally more challenging, as garden staff were increasingly seen as outsiders within the city. Instead, their location put them in close proximity to much of Chicago's elite society, facilitating the cultivation of philanthropic relationships that could support these programs. These neighbors brought new challenges along with specific outlooks that could bring the garden into conflict with local neighbors and businesses, including golf courses, when water projects combined with large rainfall events resulted in flooding.

As a place for environmental research, the suburban garden was had only limited success. Theoretically, the spacious grounds of the botanic garden, its separation from downtown, and its mosaic landscape, provided excellent opportunities for biological research on pollution. With this in mind, the garden was able to attract the support and leadership of multiple research scientists including Dr. Beedle and the garden's first director, Francis de Vos, who led the garden from 1967 until 1976, when he left to head the Minnesota Landscape Arboretum.[70] Moreover, the garden was farther away from partnerships with the University of Chicago and the University of Illinois in Chicago than it would have been downtown. The CHS did not have an established research department, and it did not rapidly cultivate professional relationships with individual scientists (beyond its director) or university departments. As chapter two will demonstrate, the botanic garden's reputation nationally became attached to other programs outside the natural sciences.

[70] Maloney, *Chicago and Its Botanic Garden*, 237. "Historical Overview—Chicago Horticultural Society Botanic Garden, From Volunteer Handbook," 1988, Folder 3: Historical Overviews 1950-1968, Chicago Horticultural Society, Long Range Planning Reports & Mission Statements 1950-1962, Box 3004, CHS.

The establishment of this physical footprint in the northern suburbs of Chicago, much as the Pope and Ballard report suggested, did provide financial security and spur rapid growth following its public opening in 1972. Between 1970 and 1978, its membership grew from 838 to 3,000.[71] Most of these members were from the northern Chicago suburbs near the garden, and they were likewise mostly middle-aged or older and of above average income and education.[72] It also attracted younger suburbanites who came with children. None of the visitors paid an admission fee, but fees were charged for the tram, events, tours, and classes (and eventually parking)—all of which provided important revenue. The Chicago Horticultural Society had achieved a permanent garden site even as its programs continued to adapt to social and other cultural changes in the last third of the twentieth century to become one of America's leading botanic gardens. The process was not predictable, but determined and dedicated leadership shaped something distinctive in the landscape of American botanic gardens.

Part of this distinctiveness has remained tied to their public and community horticulture programs, which have continued uninterrupted and in multiple forms from the 1940s through the present. Ongoing work with the Chicago Lighthouse for the Blind has been part of this programming, and although CHS's contributions to the Garden for the Blind had waned by 1963, they continue to be involved with the Chicago Lighthouse for the Blind through horticultural therapy programs to this day.[73]

[71] Lawrence Michael Nakrin and Susan McLean MacLeod, "A Marketing Study of Members of the Chicago Horticultural Society," September 1979, Folder 1: Marketing Study of CBG 1979, Box 35, CHS.
[72] Nakrin and MacLeod, "A Marketing Study of Members of the Chicago Horticultural Society."
[73] Maloney, *Chicago and Its Botanic Garden*, 20. "Vandals Trample Garden Planted for the Blind," *Chicago Tribune*, June 7, 1963.

Chapter Two: Horticultural Therapy before Research: Timing and Priorities

As it fundraised and developed as a new institution, the Chicago Botanic Garden's (CBG) leadership sought to incorporate all three necessary aspects of a botanic garden—display, education, and research. The Chicago Horticultural Society (CHS) already had significant experience in education, having led a number of workshops, lectures, and outreach programs from its headquarters in downtown Chicago. CHS also had a reservoir of expertise in horticulture, which facilitated the development of display gardens, especially because the society had long dreamed of a garden of their own. As the previous chapter demonstrated, however, research was a new area of development for the society as it transitioned from a horticultural society to a horticultural society plus botanic garden. Traditionally, botanic gardens have sponsored and facilitated research, while horticultural societies have not.

The extent to which CBG staff developed each of the components of a botanic garden was dependent on their existing expertise but also on the priorities of its leadership. Education and associated programming beyond the garden remained a focus throughout the period, building on prior experience and a continued prioritization by the garden's first three directors, Dr. Francis de Vos, Dr. Roy A. Mecklenburg, and Dr. Roy Taylor. The need to develop the three hundred acres of the Chicago Botanic Garden also remained top of mind as each man sought to design and develop the site's multifaceted displays. Research development, however, was inconsistent. Though de Vos took steps to develop a fledgling program during his tenure at the garden, research was deprioritized under Mecklenburg and only later championed by Taylor.

The result was an opportunity for other programs to develop into important lynchpins at the garden where they provided a source of financial support through grants and enhanced the garden's reputation through national consultancy. The horticultural therapy program did both. In the process, it became an internal priority for the garden, which sought to transform its large size and substantial support into national prominence. While other gardens hosted national meetings on integrated pest management, Japanese Gardens, and continuing education programs, CBG hosted horticultural therapy conferences that drew professionals from across the country.

This success came, at least in part, because horticultural therapy, as a professional discipline, was developing simultaneously. While people have been using horticulture as part of medical treatment for centuries and it has long been recognized that gardening is a healthful activity, it was only following World War II that a field of horticultural therapy began to coalesce in the United States as "a medical discipline that uses plants, gardening activities, and the innate closeness we all feel toward nature as vehicles in professionally conducted programs in therapy and rehabilitation," although such a specific definition has never been universally adopted.[1] Philanthropic organizations such as garden clubs began by sponsoring gardens, special tools, and programs with financial and volunteer support for disabled veterans.[2] Much like the Chicago Horticultural Society capitalized on the victory garden movement to develop long-term programs, horticultural therapy continued

[1] Steven H. Davis, "American Horticultural Therapy Association: Its Purpose and Potential," *HortTechnology* 5, no. 2 (April/June 1995): 121.
[2] Charles A. Lewis, "The Evolution of Horticultural Therapy in the United States," *National Council for Therapy and Rehabilitation through Horticulture: Lecture & Publication Series* 2, no. 5 (October 1976): 1-6. A.W. Ewert, D.S. Mitten, and J.R. Overholt, *Natural Environments and Human Health* (Boston: Wallingford CABI, 2014).

to develop during the second half of the twentieth century with more professional training programs at two- and four-year colleges and, ultimately, a professional organization was formed in 1973.

At the same time, there was an increasing amount of attention paid to people with disabilities more generally across the United States. Beginning in 1960, Americans of all ages could qualify for the Social Security Disability Insurance, and in 1972, amendments to the Social Security Act allowed disability benefits recipients to qualify for Medicare under the age of sixty-five. This access to federal funding for healthcare was complemented by legal rulings mandating access to education and public transportation and increasing public attention on the realities faced by people with disabilities, brought on by increasingly vocal activists during the 1970s and 1980s. Television broadcasts highlighting abuses, demonstrations in Washington, D.C. and elsewhere across the country, and the coalescence of multiple advocacy groups developed awareness that would contribute to the passage of the Americans with Disabilities Act in 1990.[3]

Under this confluence of forces, the horticulture therapy program at the Chicago Botanic Garden became a model program under the leadership of Eugene Rothert. While this is true within the field of horticultural therapy specifically—Rothert wrote manuals for therapeutic programs that were widely distributed—the program provided a model for other community horticulture programs at the Chicago Botanic Garden. Rothert was conscientious when it came to finances, program reputation, and organization. He worked to perfect a particular model of therapy and then to export it, replicating it

[3] Doris Zames Fleiscer and Frieda Zames, *The Disability Rights Movement: From Charity to Confrontation* (Philadelphia: Temple University Press, 2011): xxvi-xxviii.

widely. When he became the head of the urban horticulture department in the 1980s, he steered all of the programs he managed toward these goals.

Research Development at the Garden

Though other botanic gardens had decades of history behind their display gardens, research programs, and educational offerings, the Chicago Botanic Garden sought to rapidly establish all three. A primary way of doing so was hiring experienced leaders for the garden. With secure state funding for the garden, Dr. Francis de Vos was named director of the new Chicago Botanic Garden in 1967, a promotion from his position as assistant director of the United States National Arboretum, where he had focused on building the plant collections and developing a research program.[4] De Vos' formal expertise was in ornamental horticulture, the field in which he received his doctorate from Cornell University, but he had already proven his ability to build a research program as well.[5] De Vos was one of only two employees of CHS who worked at the garden when he arrived, and his primary role was to imagine and implement a new horticultural paradise in the suburbs of Chicago.

Because the CBG was managed by CHS, de Vos reported to the president of the horticultural society.[6] Beginning in 1968, this was Dr. George Beadle. Beadle, just retiring from a stint as president of the University of Chicago, was nationally known for

[4] Art Kozelka, "Dr. De Vos Leaves Jan. 1," *Chicago Tribune*, November 21, 1976.
[5] "Excerpts," *Chicago Tribune*, July 20, 1990.
[6] Technically speaking, CBG still is managed by CHS, but as of 1996 the annual reports signaled a shift by suddenly shifting from "Chicago Horticultural Society Annual Report," to "Chicago Botanic Garden Annual Report." As far as I can determine, CBG is the entire public face of CHS today, and CHS continues to exist only on paper and in legal instances.

his biological work on yeast, a research enterprise for which he had won the Noble Prize. In 1972, Beadle retired and was replaced by Dr. Louis B. Martin, who arrived from the Brooklyn Botanic Garden after three years as president there. Prior to that, he had led the Denver Botanic Gardens, been the director of the education department at the Los Angeles State and County Arboretum where he had started their Professional Gardener School; he had a Ph.D. in plant physiology from UCLA.[7] De Vos, Beadle, and Martin all had proven leadership records at large institutions when they were hired to lead CBG, and they all had professional credentials and research experience in the fields of botany or horticulture. They brought these experiences to CBG as they led the garden overall, but also its fledgling research programs.

Under their leadership, a modest research program developed at the garden. In 1971, Dr. Russell J. Seibert, director of Longwood Gardens, was invited to speak at the botanic garden as part of a national project of the Men's Garden Clubs and American Horticultural Society to study environmental projects.[8] Focused on the impact of urban plants to reduce pollution, the Chicago Horticultural Society was impressed with his work such that they invited him to return and collaborate with the Chicago Park District and Forest Preserve District of Cook County on an air pollution report.[9] Raphael Pappo worked at the garden intermittently on lily research between 1970 and 1975 as a research

[7] "Official at Arboretum Resigning Post," *Los Angeles Times*, July 31, 1966. "People and Places," *BioScience* 9, no. 11 (November 1969): 1026-1028.
[8] Tom Stevenson, "Fighting Pollution with a Program of 'Green Survival," *Washington Post, Times Herald,* October 18, 1970.
[9] Chicago Horticultural Society and Botanic Garden, *Annual Review 1971/1972*, 12.

associate, and the University of Illinois used space at the botanic garden for turf research during the same period.[10]

In 1975, CHS appointed a director of research at the Chicago Botanic Garden, Dr. Harbans S. Bhella, signaling growth in the department. During his three-year tenure at the garden, he managed a plant evaluation program seeking cultivars for use in the Chicago landscape.[11] As part of this work, he successfully applied for and received a modest outside grant from the Illinois State Nurserymen's Association, receiving $1,500 to conduct field studies on the response of street trees to sodium lights.[12] Meanwhile, the other member of the research department, Dr. James Gauss, conducted fertilization studies on shade trees.[13] Each of these research projects were modest in scale, but they were a major step for a horticultural society that had never before conducted its own research projects. Their focus on breeding and landscape plants for urban and northern climates would also set the tone for future research projects.

In 1976, as de Vos left CBG, he was optimistic about the progress the botanic gardens had made over the previous decade. "While much remains to be done in developing public plantings and educational and research programs," he commented, "I feel that the botanic garden is on the threshold of becoming one of the greatest botanic gardens in the country."[14] Reflected in this statement is de Vos' belief that a botanic

[10] Chicago Horticultural Society and Botanic Garden, *Annual Review 1971/1972*, 22; Chicago Horticultural Society and Botanic Garden, *Annual Report 1972*, 4-5.
[11] Chicago Horticultural Society and Botanic Garden, *Annual Report 1975*, 4-5.
[12] Art Kozelka, "Old Fashioned Garden Means 'Pinks,'" *Chicago Tribune*, February 1, 1976; "Serious 'green thumber' needs solid background," *Chicago Tribune*, March 6, 1977.
[13] Chicago Horticultural Society and Botanic Garden, *Annual Report 1975*, 4-5.
[14] Kozelka, "De Vos Leaves."

garden should have public plantings, education programs, and active research, and this is also clear in the work that he accomplished at the garden. In the case of research and of landscape, de Vos had nearly a blank slate on which to work. When he left the garden to lead the University of Minnesota's arboretum, the work of developing those programs was not finished, but he carried with him a positive reputation for managing both.

Before he left, de Vos also put in motion a collaborative educational and advertising venture that demonstrated the garden's interest in becoming a leader in the field nationally. In 1977, it joined the New York Botanical Garden and Los Angeles State and County Arboretum as one of the three publishing sponsors of *Garden Magazine*. An additional perk for members of these gardens, the publication couched itself as a popular publication that was both well-researched and impeccably produced but light and friendly for a general audience.[15] It featured a special section in the beginning with content provided specifically to each garden's members. For the Chicago Botanic Garden, these special features rotated between informative updates and narrative content. For example, Rothert had an article featured here in 1978 about plants related to the Nativity of Jesus.[16] As members of the *Garden Magazine* team, CBG staff asserted themselves as peers of the New York Botanical Garden and the Los Angeles Arboretum, gardens with a national presence rather than an exclusively local one.

Over the course of the early 1970s, CHS and CBG had embarked on a number of research projects, led by staff, associates, and invited or visiting experts. These projects

[15] Howard S. Iriwn, "Garden Magazine, A New Publication," *The Bulletin - American Association of Botanical Gardens and Arboreta* 11, no. 2 (April 1977): 53-56.
[16] Eugene A. Rothert, "Plant Legends of the Nativity," *Garden Magazine* (November/December 1978), Box 30F, CHS.

were almost exclusively focused on developing landscape plants, however, from turfgrass to marketable cultivars that could hold up to a rough urban environment. While the society could claim some active research in the areas they sought to excel in during their development, namely environmentally responsive conservation work, their level of involvement in basic biological research remained minimal. This is particularly evident in the tangential nature of the research deemed relevant to publish in their annual reports. A celebrated outside expert was invited to do a report on the relationship between pollution and street trees in urban Chicago. A staff researcher was awarded a mere $1,500 in research funding. While some research results appeared in the early annual reports—a statement not true in the late 1970s and early 1980s—but most of the garden and society's development efforts lay elsewhere.

Horticultural Therapy Grows

While the research programs at the garden lagged and the gardens' landscape took time to develop, public programs and other educational programs, areas in which CHS staff were already experienced, continued to flourish. During the early 1970s, Virginia Beatty led these programs, which included the Children's Vegetable Garden, a program that brought children from settlement houses to the botanic garden to plant and harvest vegetables of their own, horticultural presentations for community groups, and horticultural therapy programs in elementary schools. Initially Beatty was a volunteer for CHS, but she gradually became the first paid employee to lead urban horticulture programs, moving from the leader of the Children's Education Committee organizing a few school projects for inner city schools to a paid staff member in charge of an array of

programs from a Flower Show display to teacher workshops to the editor of *Garden Talk* over three years.[17] Her preparation for this role was not formal education in horticulture. She had studied library science in college.[18]

As the sole leader of public horticulture programs for CHS, Beatty was very busy. After a short time leading the Children's Vegetable Garden, she wrote, "In view of the growing demands, it is no longer possible to serve the community with our existing methods."[19] She saw room for expansion—service to the growing Hispanic community could be improved through Spanish language materials and new horticultural therapy programs could be developed—but something would have to give. Perhaps the master gardeners could do some of the information dissemination work or experts in the public schools or Chicago Housing Authority might have to take over some of the work on those projects.

However, Beatty was never truly alone in her work, as she had a dedicated corps of volunteers—mostly women—who aided and even led the programs she supervised. Among these unpaid volunteers, Virginia Carlson was particularly committed and persistent, leading CHS's horticultural therapy program for Chicago children with

[17] Chicago Horticultural Society and Botanic Garden, *Annual Review 1971/1972*; Chicago Horticultural Society and Botanic Garden, *Annual Review 1973*.
[18] However, her mother was a plant collector for the Missouri Botanical Garden and Field Museum during Virginia's childhood in Guatemala. For more on her parents see "New Awards Honor Alumni Couple from the Class of 1921," Lyles School of Civil Engineering, Purdue University, accessed August 25, 2019. https://engineering.purdue.edu/CE/Media/Transitions/2017-December/new-awards-honor-alumni-couple-from-the-class-of-1921
[19] "Information on Urban Horticulture Education Program," November 19, 1974, Folder 6: Proposals/Chicago Community Trust, Box 20B, CHS.

disabilities, which she founded in 1958.[20] Initially inspired to work in the area of horticultural therapy because of her love for her two sons with muscular dystrophy and her passion for growing green things, Carlson remained devoted the Chicago Horticultural Society's program for twenty-five years. She focused on children with physical and mental disabilities who attended a number of special education schools in the Chicago area. Known as "The Flower Lady" to the children, Carlson visited classrooms at the Christopher School, Jane Neil School for the Handicapped, and Southeast School for the Retarded, among others, every week or every other week bringing seasonally appropriate plant activities—live plants in the seasons she could get them and dried or fake flowers at other times.[21] Even after the botanic garden's greenhouses were constructed, this seasonal model continued, illustrating Carlson's general independence and the limited level of active support she required.

Carlson was an exemplar of the service that so many people, especially women, provided to children with disabilities throughout the country in the 1950s, 1960s, and 1970s. Disabled children were one of the first groups of people with disabilities to receive attention, a result of the advocacy of their parents. In 1950, the National Association for Retarded Children was formed, and by 1960, it has 62,000 members, most of whom were parents of children with disabilities.[22] Charles Lewis emphasized the role of volunteers, like Carlson, who aimed to improve the lives of people with

[20] Olivia Hakinson, "Virginia Carlson, 79, Schools' 'Flower Lady,'" *Chicago Tribune*, August 9, 1998.
[21] Chicago Horticultural Society, *Annual Review 1971/1972*, 12.
[22] Michael Rembis, ed., *Disabling Domesticity* (New York: Palgrave Macmillan, 2017), 4-5.

disabilities through horticultural therapy, specifically.[23] Prior to the development of training programs, people who chose to share their love of gardening with patients as volunteers, often garden club members, made up the majority of those who developed the specialty. As of 1968, 4,609 garden clubs in 36 states had volunteers actively working in horticultural therapy. It was only after 1973, when the National Council for Therapy and Rehabilitation through Horticulture, was formed, that a professional niche for horticultural therapists emerged.

That is not to say that horticultural therapy was new. Many textbooks of the field trace their roots back to ancient Greece or Rome, but its more direct history begins with Benjamin Rush in eighteenth century America. This is where Charles Lewis began his history of the field, a chronical that has become canonical.[24] Lewis pointed to Benjamin Rush in Philadelphia as the first to investigate a role for plants in curing "diseases of the mind" in the 1790s and traces the discipline's informal introduction into American mental institutions throughout the nineteenth century, especially those near Philadelphia. Around the turn of the twentieth century, the value of horticultural therapy was established as related to specific gardening activities as opposed to just being attributed to physical activity. In 1896, Helen Campbell (philanthropist), Thomas W. Knox (author), and Thomas Byrnes (NYC Chief of Police) published *Darkness and Daylight or Lights*

[23] Lewis, "The Evolution of Horticultural Therapy in the United States," 1-6.
[24] Lewis, "Evolution of Horticultural Therapy." A paper read at the Fourth Annual Conference of the National Council for Therapy and Rehabilitation through Horticulture in Philadelphia on September 6, 1976, Charles Lewis' account of the history of the field has been accepted as canonical in the field and incorporated into textbooks. Even those that cite a different source include the exact progression laid out by Lewis. This is despite the fact that he himself stated, "The author…does not intent [sic] this as a complete chronology but rather a starting point for others who would like to delve still more deeply into the evolution of Horticultural Therapy," 1.

and Shadows of New York Life, which included horticultural activities as a beneficial activity for children in tenements, as exemplified by the work of the Children's Aid Society. In 1899, E.R. Johnson wrote about the use of gardens and plants in teaching children with mental disabilities in the professional *Journal of Psychoasthenics*. In 1900, G.M. Lawrence included a discussion of plant applications in "Principles of Education for the Feeble-minded" in the same journal. In the years that followed, gardening became a more widely recognized therapeutic activity, and in a few places throughout the United States, namely Philadelphia; Kankakee, Illinois; and White Plains, New York, horticultural techniques and green houses were introduced in therapeutic institutions. By 1940, almost all occupational therapy books mentioned gardening as a therapeutic practice.[25]

Following the Second World War, the field of horticultural therapy started to inch toward establishing itself as a separate, independent discipline, building on momentum in the fields of rehabilitation and horticulture similar to those that led to the revival of the Chicago Horticultural Society. In England and the United States, garden clubs and other philanthropically minded organizations took up horticultural therapy as a way to help wounded veterans. This brought more funding and recognition to the field, though it remained more of a good-will project run by philanthropists rather than a defined field with professional training.[26]

[25] Lewis, "Evolution of Horticultural Therapy."
[26] "Projects for the 1945 Founders Fund Award to be Voted on by the Member Clubs by Ballot and Returned Before June 9th, 1945," 1945, Folder: Garden Tools for the Blind, GCA.

In the 1950s, this began to change, and a few leaders emerged in horticultural therapy training and theory, but these methods did not coalesce into a coherent discipline. Alice Wessels Burlingame at Michigan State University is often mentioned as the head of this transition. In 1952, Burlingame, who had gathered her expertise through formal education in occupational therapy, landscape architecture, and greenhouse production, hosted a workshop in horticultural therapy at Michigan State University. Attended by professionals from universities and public gardens across the country, including Dr. R. Milton Carleton, CHS president, the workshop led to the foundation of horticultural therapy programs at botanical gardens across the country including the Arnold Arboretum of Harvard University (1953) and the Holden Arboretum in Cleveland (1956). In 1955, Genevieve Jonas, an occupational therapist in the greenhouse at Hines Veterans Administration Hospital in Chicago, received the first master's degree in horticultural therapy from Michigan State University, a specific track within the occupational therapy program, and published a "Handbook on Horticultural Therapy" in 1955.[27]

The mid-1950s, when there were still only a few horticultural therapy programs active nationally, was when CHS made its foray into the field. After meeting with Burlingame monthly to develop a horticultural therapy program for CHS, Carleton shepherded the construction of the Fragrance Garden for the Blind at the Lighthouse for the Blind in downtown Chicago, which opened in 1956. A philanthropic project led by the Women's Board of the Chicago Horticultural Society, the garden was also the first outdoor garden site developed and maintained by CHS. Because it was a partnership

[27] Lewis, "The Evolution of Horticultural." Ewert, Mitten, and Overholt, *Natural Environments and Human Health*, 51. Davis, "American Horticultural Therapy Association," 122.

project with a downtown institution and because it served the broader good, the Garden for the Blind also served to buoy the reputation of CHS, which was struggling to cultivate membership and fundraising dollars. Virginia Carlson's work with children with disabilities continued in this legacy through the 1960s.

While a professional association had emerged by 1973, horticultural therapy remained loosely defined. The professional organization offered no clear definition of the field because the work of its members would not be confined by one—perhaps a side effect of decades or even centuries of uncoordinated work. A look at topics discussed at the second annual conference for the National Council for Therapy and Rehabilitation through Horticulture gives some sense of the scope. They keynote speaker was A. S. Smith from Nuffield Orthopaedic Hospital near London, who talked about his clinical work with therapeutic plants, while others talked about occupational training in Texas prisons and using botanic gardens to help old people and others without their own gardens.[28] In some cases the work was part of physical or occupational therapy, but in others, it was more general—helping people with plants. At CHS and CBG, horticultural therapy was implemented in a relatively narrow way, generally confined to programs in institutional settings with children and adults who had medically diagnosed limitations that programming with plants sought to ease.

However, these parameters were never strictly enforced. In 1968, Elma Douglas, a teacher at the Raymond School asked Carlson to bring her nature programming to her

[28] Henry Mitchell, "Plant Therapy: Taking Root, Digging In," *Washington Post*, October 10, 1974.

mainstream classroom, and Carlson did.[29] With funding from the Wieboldt Foundation and the Chicago Community Trust, the program grew over the next five years to include annual plant sales in the spring and the fall and a classroom plant show expanded to incorporate community members.[30] As Raymond students presented the fruits of their program at the Chicago World Flower and Garden Show, the program also bloomed across the Chicago area, incorporating fourteen primary and secondary schools in the next few years. It also influenced environmental education throughout the State of Illinois, as the office of the State Superintendent of Public Instruction took notice. Beatty suggested, however, that the local impacts were equally important. Beautification of the schoolgrounds reduced vandalism and improved community relationships. CHS had been bitten by the school garden bug, a project that would later be spun off to the Chicago Botanic Garden's education department.

When Beatty left the garden in 1974, however, it marked a transition. She would be the last person to lead an urban horticulture program at CHS with only a secretary and volunteer assistance. She was the last to do so with an office in Chicago (at least in the twentieth century), as her successors moved to CBG as it became the hub of the society's operations.[31] Finally, she was the last to lead without formal education in the field of horticulture, education, therapy, or some combination of those areas of expertise. The garden was growing its programs, its staff, and its reputation.

[29] Virginia L. Beatty, "Highrise Horticulture," *American Horticulturist* 53, no. 2 (1974): 42-46.
[30] Beatty, "Highrise Horticulture." "Information on the Society's Urban Horticulture Program," December 5, 1973, Folder 6: Proposals/Chicago Community Trust, Box 20B, CHS.
[31] Chicago Horticultural Society, *Annual Review 1974*, 10.

New Leadership for 1977

Five years after the garden's grand opening, 1977 heralded a number of transitions for CHS and the garden. For the first time, CHS and CBG were led by the same person, Dr. Roy A. Mecklenburg, who had his office at the garden. Education and public programs at the garden grew with three new leadership positions, also housed at the garden. Together, the skills and focus of these leaders shaped the development of programming at the garden. One aspect of this development was a nationally recognized horticultural therapy program. Research, on the other hand, received little attention.

In June 1977, Mecklenburg came to CHS from Michigan State University, the Midwest's leader in horticultural therapy, where he had taught plant propagation, the landscape seminar, and ornamental plant ecology as a professor of horticulture.[32] Occasionally, this even included taking advanced students on a field trip to the Chicago suburbs, where they could see how ecology was being incorporated into the landscape of planned communities.[33] Taking this array of experience, none of which involved leading a botanic garden, Mecklenburg set his priorities for the society, in collaboration with its board. In his first president's report, he wrote, "Substantial progress has been made in almost every facet of the Chicago Horticultural Society Botanic Garden including plant collections, garden construction, educational programs, special exhibits, membership, publications, plant information, greenhouse collections and plant records, etc."[34] All of

[32] "Horticultural Society names Mecklenburg," *Chicago Tribune*, June 5, 1977.
[33] Art Kozelka, "Garden Notes: Communities emphasize ecology," *Chicago Tribune*, June 2, 1973.
[34] Chicago Horticultural Society and Botanic Garden, *Annual Report 1978*, 4.

this was good news for a garden only open to the public five years, but one critical facet of a botanical garden was missing from this analysis—research. This would continue to be reflected in limited research developments at the garden through Mecklenburg's eight-year tenure.

In contrast, the work that Beatty had managed out of her office at CHS began to grow rapidly. Elements of Beatty's work were formally divided among three new staff members: Susan Burd as director of adult education, Lucille Valentine as director of children's education, and James Daubert as director of horticultural therapy. Though they were all titled directors, they had programs but little to no staff to manage—yet. Susan Burd, later Susan Brogdon, would spend over two decades at the garden, eventually becoming vice president of programs and supervisor of community horticulture, horticultural therapy, and children's education.[35] Valentine took over Beatty's work in the Children's Vegetable Garden, expanding the program, and Daubert became the first professionally trained horticultural therapist at the garden, expanding his staff the following year.

Within the realm of public outreach at CHS and CBG, the hiring of Jim Daubert marked the most pronounced shift. No longer was Carlson volunteering to lead a children's program that was close to her heart. Daubert brought professional credentials with a master's degree in horticultural therapy from Kansas State University, a leading program in the field.[36] From the beginning, this more formal program expanded its reach

[35] "Join Us for a Salute to Historic Chicago," *Chicago Tribune*, September 15, 1985.
[36] Chicago Horticultural Society and Botanic Garden, *Annual Review 1977*, 5. Charles Lewis, sometimes known at the "Father of Horticultural Therapy," was an adjunct instructor at Kansas State University only briefly in 1983, though his personal papers are archived there.

to explicitly incorporate "the emotionally ill, the physically handicapped, mentally handicapped, the geriatric and…correctional offenders," and it had explicit goals."[37] Ranging from goals to provide an "increase self-esteem" to "a relaxing recreational opportunity," the emphasis shifted away from developing an appreciation for plants or knowledge about them. Plants were the means to improving health; they were not an educational end in themselves.

In 1977, Daubert applied for and received a grant from the Chicago Community Trust for $75,000 over three years to develop a pilot consultative horticultural therapy program. For the next three years, this grant funded the horticultural therapy program's development beyond its foundation as a one-man shop under Daubert.[38] The grant led to the hiring of Eugene A. Rothert, Jr. in the spring of 1978, bringing a leader to the garden who would steer the development urban horticulture for over thirty years, following Daubert's exit in the early 1980s. Equipped with a bachelor's degree in plant and soil science and a minor in botany, Rothert brought years of experience in horticultural maintenance and botanical research to his implementation of therapeutic horticulture programs, despite being only twenty-four. However, Rothert's passion and professional expertise in horticultural therapy stemmed from personal experience, much as Carlson's had. Rothert had shifted into the field following a mountain-climbing accident during his senior year of a horticulture degree at Southern Illinois University that left him permanently disabled and in need of a wheelchair. He saw this as an asset, explaining,

[37] Chicago Horticultural Society and Botanic Garden, *Annual Review 1977*, 5.
[38] "Information on Urban Horticulture Education Program." Eugene A. Rothert, Jr. and James R. Daubert. *Horticultural Therapy at a Physical Rehabilitation Facility*, (Glencoe, IL: Chicago Horticultural Society, 1981), 1.

"Disabled people related to me quickly…They know that if I design a garden to suit me, then it will be right for them."[39] So while Rothert did have formal horticultural training, he continued to leverage personally-honed expertise as a leader at CBG.

Through training programs, consultations, and writing, Rothert reached audiences that included people with disabilities, special education, and geriatrics. By and large, Rothert's first few years at CBG were spent developing practical horticulture programs for institutions in the Chicago area, but he also responded to national solicitations for advice. Rothert and other horticultural therapy staff conducted three to four on-site consultations at fifty-two different Chicago-area institutions, designed to teach a structured six-week program to staff. While the training was short-term, it had a longer-term impact. Ninety percent of the homes had continued the program without continuing garden support.[40] Project by project, Daubert and Rothert developed a horticultural therapy model used with patients across the Chicago metropolitan area and beyond.

Horticultural Therapy: A Leader's Program

Just twenty–four years old, Gene Rothert rolled his wheelchair into the garden on the third day of a job where he would devote himself to improving health through plants for the rest of his working life. As he later recalled, a little before nine am on a bright June morning in 1978, the garden was already abuzz with bees, butterflies, and volunteers. Low conversation and boisterous laughter greeted Rothert as the bearded

[39] Raeann Berman, "Green Therapy for the Disabled," *Kiwanis: A Magazine for Community Leaders* (April 1980): 26-28, Folder 5: Urban Horticulture and Hort Therapy, Box 30G, CHS.
[40] "Report for Chicago Community Trust," January 16, 1981, Folder 6: Proposals/Chicago Community Trust, Box 20B, CHS.

young man made his way across CBG's Enabling Garden. The sights, sounds, and smells of the garden interrupted his travels. Florence called to Rothert from a raised garden bed, created in an eighteen-inch drain tile stood on its end.[41] "Just look at this deary! Look at what God gave us today! Its [sic] so lovely and listen. You can hear the bees, can't you? I can't anymore but I'm sure you can," Rothert recorded. She proceeded to provide him with a description of the morning cloak butterfly and its method of sucking nectar from the heliotropes she was contemplating. He would later discover that her ability to describe the structures of both the flowers and the butterflies came not from contemporary experience, but from earlier expertise. At eighty-one, she was too hard of vision to observe them first-hand that morning.

Max and Mary provided Rothert with the wisdom and humor of the aged that morning, as he passed them working at the vertical garden. In boxes turned on end and looking much like living chess boards, Max cultivated the lettuce in a careful way obviously informed by his career in horticulture on Chicago's North Shore. His conversation was laced with the remnants of his German accent, referencing his childhood in Germany and his service in the German Army during World War I. Mary clearly captured years of expertise to identify plants by feel and smell, though she worked slowly, warming her hands deep in the sun-warmed soil—an activity jovially called "goofing off" by Florence. Rothert brought his own experience as he observed the garden

[41] Berman, "Green Therapy for the Disabled," 26-28. First names here are as referenced by Rothert in the interview. I do not have their last names.

too, noting carefully the motion of each gardener, and specifically Max as he moved his wheelchair with his feet and worked in the garden bed with his hands.[42]

The garden volunteers in the enabling garden were multi-aged, however. Elementary student Cindy was taking full advantage of her wheelchair and summer vacation to water the garden with a hose and spray attachment—one that she "accidentally" sprayed the other gardeners with on frequent occasions, earning herself the moniker, "Demon on Wheels." Bill made use of a special pruner to gather blossoms from the linden tree with his one arm. A few years older than Rothert and having lost his right arm in Vietnam, he would become close friends with the new horticultural therapist in the proceeding months. As Rothert watched each of the volunteers work in the garden, he learned from their diverse abilities to experience and understand, savoring his mornings in the sun-kissed space.[43]

The space still looked new, but it had already been well loved over the course of its four-year existence. The garden hired its first full-time horticultural therapist in 1977, but the enabling garden was inaugurated in 1974 under the leadership of Elsie Sutter, the President of the Kenilworth Garden Club, a North Shore chapter of the Garden Club of America.[44] Sutter, a past national president of the Garden Club of America and a continuing Women's Board member at the botanical garden, was inspired to introduce a garden for the disabled in Chicago after a trip to a similar garden in Syon Park in

[42] "Garden for the Blind Brochure," n.d., Folder 28: Garden for the Blind (Chicago) 1956-1961, Box 4002A, CHS.
[43] Gene Rothert, "Our Secret Garden," Folder 4: Papers Written by Gene Rothert on Urban Horticulture and Buehler Enabling Garden, Box 30G, CHS.
[44] "Learning Garden for the Disabled," Buehler Enabling Garden, KHS.

England.[45] Convinced of the garden's necessity, she applied for a national Founder's Fund grant from The Garden Club of America and received $5,000 for the construction of a half-acre garden with raised beds made of concrete boards, treated railroad ties, and paved paths in between to facilitate wheelchair traffic.[46] The first of its kind in the nation, the garden was improved the following year with the construction of a greenhouse, again funded at $30,000 through the networks of the Kenilworth Garden Club.[47]

Despite these dedicated fundraisers, the garden did not open to the public until 1976, amid numerous requests from the interested public. Similarly, the garden remained unplanted for months until the horticulture department adopted it and planted the raised beds so they would not be entirely bare.[48] Without a staff member dedicated to the garden it did not thrive in this period of garden establishment. It waited, but beginning in March of 1977 with Daubert's hiring, it and the horticultural therapy program began to grow rapidly, rising to become a national leader and remaining the only garden for the disabled of its kind.[49] In horticultural therapy, the Chicago Botanic Garden was at the beginning of a movement. The National Council for Therapy and Rehabilitation through Horticulture, intended to be a clearinghouse for information and professional

[45] Kenan Heise, "Elsie Sutter, Aided Disabled in Gardening," *Chicago Tribune*, May 24, 1984. "Learning Garden for the Disabled."
[46] "Historical Overview—Chicago Horticultural Society Botanic Garden, From Volunteer Handbook," 1988, Folder 3: Historical Overviews 1950-1968, Chicago Horticultural Society, Long Range Planning Reports & Mission Statements 1950-1962?, Box 2004, CHS.
[47] Mrs. Helen Petit secured $30,000 for this project through one of the clients of her attorney husband. She received an authored obituary in the *Chicago Tribune*. Karen Craven, "Helen Corley Petit, 93, Aided Zoo," *Chicago Tribune*, July 23, 1999.
[48] "Learning Garden for the Disabled."
[49] Mark Starr, "Gardening Pushed as Therapeutic Tool," *Chicago Tribune*, June 23, 1977.

organization, was founded only in 1973.[50] While the national council attempted to be a national source for information, the Chicago Botanic Garden functioned in this role as well, fielding frequent national requests and producing horticultural publications used nationally. At least in part, CBG's leadership in this area was facilitated by its late establishment and relative flexibility in the 1970s to join and build on the horticultural therapy trend.

Daubert and Rothert's programming stretched far beyond the boundaries of the botanic garden. During the implementation of their first major horticultural therapy grant between 1979 and 1981, the two developed programming for a spectrum of facilities that worked with individuals with special therapeutic needs, demonstrating the early broad scope of the program. At least two of their project sites were schools, one in the Evanston School district and one in Lake Forest.[51] At the Niles Township Sheltered Workshop, they developed programming for adults with disabilities. However, many more projects were in nursing homes or adult day-care programs serving elderly residents, where they typically introduced plant programs, greenhouse designs, and outdoor gardens. CBG staff also reached a number of psychiatric and alcohol treatment facilities, such as the Illinois State Psychiatric Institute, where staff focused on helping patients develop a life-long hobby that they could continue at home after their few weeks of treatment.[52] Together, this range of programs indicates that the vision for horticultural therapy at CBG was initially broad, including patients of all ages, addressing

[50] Rothert and Daubert, *Horticultural Therapy at a Physical Rehabilitation Facility*, 2.
[51] "Report for Chicago Community Trust."
[52] "Report for Chicago Community Trust."

psychological and physical needs and both chronic and acute illnesses. And yet, it was still focused on medical and institutional settings.

Early on, it became clear that programs at geriatric facilities were particularly successful. In 1979, the pilot program at Winchester House was awarded "Excellence in Horticulture" from a local garden club for a program that infused nearly all aspects of living with plant therapy.[53] For individual participants, the program was transformative. According to one resident, an 83–year–old man, "I finally have something to do. I was a gardener all my life but since living here I had no way to garden. Since the program started I feel like a man again…Now I have something to look forward to when I get up each day."[54] For many residents, the program gave meaning back to their daily lives and provided physical and mental activity, important therapies in geriatric settings. Residents who had previously been highly sedentary developed more active routines, rising early to take care of their plants inside and outside. Residents were entirely responsible for the care of the plants, but they also participated in the planning and implementation of horticultural projects, including the plant and craft sales that made the program self–supporting by raising $9,000 in the first year and a half of the program.[55] Purchased by other residents and members of the wider community, these plants and crafts built on

[53] In this case, the supporting garden club was a member club of the Men's Garden Club of America. There are multiple types of garden clubs, but they tend to be more focused on philanthropy and function more as social groups than do horticultural societies. In contrast, horticultural societies are more focused on public education and are less exclusive. While the Chicago Horticultural Society did have philanthropic projects in the 1950s and 1960s, they were primarily the domain of the Woman's Board, a philanthropic arm of the organization.

[54] "Horticultural Therapy for Nursing Homes," 1980, Folder 6: Proposals/Chicago Community Trust, Box 20B, CHS.

[55] "Horticultural Therapy for Nursing Homes."

skills developed and ideas sparked in the activity program run jointly by CBG and the activity therapy staff of Winchester house which included topics such as plant care, propagation, and a horticulture projects such as windowsill greenhouses, terrariums, dish gardens, hanging baskets, and potted plants.

Because the program began in the fall, it was initially focused exclusively on indoor activities. Taking advantage of the solariums on each floor of Winchester House and its well-lit atmosphere, plants became environmental enhancements throughout the home. Residents' rooms were a favorite place for personal plants, but the institutional appearance of nursing stations, lounges, and the dining room were also softened by plants. Artificial light gardens, the center of the winter horticulture program made their home in the craft room where classes met. Designed to help residents cultivate horticulture as a social hobby, these courses integrated socialization opportunities by organizing participants "in the round." Successfully introducing a common interest among residents, the classes were increasingly popular among the three hundred fifty residents, who attended in large numbers.[56]

Building on the initial success of the program, Winchester House staff worked with CBG to expand the horticultural therapy program in the spring and summer of 1979, when the 2,400 square foot patio on their grounds was transformed into a welcoming oasis. With the support of five hundred dollars contributed by the home's activity fund, containers were added to the patio and filled will brightly colored flowers, vegetables, and herbs. Though it had previously been used very little, Rothert wrote, "The patio became *the* [italics in original] place to go as a result of the addition of plants and

[56] "Horticultural Therapy for Nursing Homes."

flowers."[57] Daily social hours, barbecues, concerts, and ice cream socials were relocated from the dining room to the patio. Individual residents also regularly used the space as a place to bring visitors or to relax by themselves, taking pride in the space even if they did not themselves participate in the horticulture program. As a multi-layered pilot program, the project gave CBG staff high hopes for the success of expansion with fiscal sustainability, staff cooperation, and multi–faceted impact.

While the program at Winchester House was just one of multiple therapeutic programs, spanning from special education programs in schools to psychiatric care centers, it became a model for future programs as Rothert sought to develop geriatric care as the focus of the program beginning in 1981. There were many practical reasons for this move. First, seniors were demographically the largest population in Chicago and the fastest growing one, projected to include one in eight Americans by the year 2000. Second, like, horticultural therapy, geriatrics was a rapidly developing field, ripe for interventions. The establishment of Medicare in 1965 was an important step in funding care innovations for older adults, and a number of professional organizations dedicated to caring for this population, like the National Institute on Aging (1974) and Veteran's Administration's Geriatric Research Education Clinical Centers (1976), indicated a growing interest that CBG could capitalize on.[58]

Third, the impact was visible. Plants brought growth and beauty into the nursing homes, stimulating motivation, self-expression, and socialization and enhancing self-esteem, all of which helped to combat the common depression associated with the loss of

[57] "Horticultural Therapy for Nursing Homes."
[58] Mary Ann Forciea, "Geriatric Medicine: History of a Young Specialty," *Virtual Mentor* 15, no. 5 (2014): 385-389, doi: 10.1001/virtualmentor.2014.16.5.mhst1-1405.

independence caused by entering a nursing home. Stated in a more encompassing way, the goal of this program was to help seniors "live rather than exist."[59] Another motivation for such institutional collaboration was funding. An activities budget was common at geriatric facilities, and the developing programs capitalized on this funding for start-up costs at each location, requiring both staff and monetary contributions from each site. Working in nursing homes rather than schools also provided a freer environment for program development. There were no established standards to adhere to for programming; no tests to prepare for or pass. The residents in nursing homes were also uniquely non-transient, staying throughout the entire sweep of the horticultural therapy program.

Rothert was particularly enthusiastic about working with older patients. In his own writing and interviews, Rothert demonstrates how enamored he was to work with older patients, noting the vast wisdom and knowledge they brought to their horticultural therapy experiences. Speaking of many of the nursing home residents, Rothert asserted, "Many of these people spent their whole lives around nature…They have a lot of expertise."[60] Similarly, he frequently recognized that many of these men and women had forgotten more about horticulture than he had ever known.[61] Given this history and the greater flexibility of these sites, Rothert believed that programs at geriatric facilities were most successful.[62] It was also here that the program won awards.

[59] "Horticultural Therapy for Nursing Homes."
[60] Berman, "Green Therapy for the Disabled."
[61] Berman, "Green Therapy for the Disabled."
[62] Berman, "Green Therapy for the Disabled."

Moving forward, Rothert determined that another pilot project, this time working in a number of distinct senior facilities, would support the development of broadly applicable programming. For support, CBG staff turned to the Chicago Community Trust, asking for a grant twice the size of their previous award to reach thirty nursing homes over three years. Instead, they were awarded $50,000 of funding for the first year of programming, for which ten homes were selected. The limited number of openings allowed the program to be selective, focusing on homes with existing horticultural infrastructure and outdoor space for gardening, a diversity of residents and inter-home demographic differences, and in-house monetary support.

Rothert was also particularly concerned about working with good nursing home facilities and those that could help support and contribute to the program. With an average of $5,000 per home from the grant, Rothert was able to charge a program rate far below the break-even level, and by charging $750 per organization, he was able to stretch the budget further. More importantly, financial contributions signified a buy-in from program staff. By putting down some money up front, staff were encouraged to work cooperatively with the program to get their money's worth (or far beyond it) from the CBG. This money was also an indicator for horticultural therapy staff of a willingness and ability of each home to support the program in the future.[63] This was important, as the majority of CBG's work in horticultural therapy, including this project, was intended to seed independent horticultural therapy programs that would continue without CHS intervention.

[63] "Report on Nursing Home Grant," March 25, 1981, Folder 6: Chicago Community Trust, Box 20B, CHS.

Money was not the only thing that the program hoped to gain as Rothert selected its affiliations with particular nursing homes. He also paid attention to the quality and reputation of each home, wanting to associate themselves with well-respected organizations because they did not want to spend their time on places where horticultural therapy could be of little help due to underlying issues and because partnering with other leading organizations would help the reputation and spread of the program.[64] Working with larger organizations that owned more than one facility also facilitated the spread of their programming.

The diversity of residents in each home, understood to include disability-type, race, income, occupational background (including farmers), gender, and religion were also important criteria for the selection of the ten project sites. Program staff looked exhaustively to find a suitable site with an African American population, for example, ultimately finding only one "primarily black home…of sufficient quality to participate."[65] Mostly, they were concerned about inter-site diversity rather than intra-site diversity, as they chose many mostly monolithic populations—all-Jewish, ninety percent female, or all low-income Presbyterians, for example. As a pilot project, diversity among sites also enabled the program to be tested under a variety of circumstances, refining its transferability. However, given the nature of the funding for the program, it is also likely that diversity was an aim of public relations as well.

As the horticultural therapy program became established in the mid-1980s, its focus shifted to program financial sustainability and expansion. While the program

[64] "Report on Nursing Home Grant."
[65] "Report on Nursing Home Grant."

continued to seek grants for funding assistance, more and more of the budget was expected to come from the institutional clients served through the program, with steep annual increases planned until income and costs were in equilibrium.[66] At the same time, expanding the consultation program by one to two sites annually would aid the program's budget.

As Rothert and other garden staff worked in the youthful and expanding field of horticultural therapy and developed these programs, they learned a number of skills they would use to develop the urban horticulture department over the next decade. They managed their first large grant (with the help of CBG development staff) and its regular reporting requirements, gaining experience working with local funders. They also began to think strategically about how to continue to shape a program and develop it a point where the program could later be infused with more funding. In doing so, they developed models for what worked well and what worked poorly throughout the grant period, establishing a consultation model that they would use for both horticultural therapy and other urban horticulture projects. A strong element of personal determination and self-sufficiency was evident in everything they did. This became a pattern. Program leaders would develop a model that worked in one place, reproduce it across multiple sites, focus on maintaining consistently high standards across these programs, and aim for the development of an in-house group, often occupational therapists, that would be able to continue the program without ongoing intervention or assistance by incorporating the program into their regular therapeutic practices.

[66] "1983 Objectives and Long Range Plan," 1983, Folder 2: Urban Horticulture Department, Department Report, 1983, Box 1014, CHS.

After a few years of concerted emphasis on developing a systematized horticultural therapy program at nursing homes, Rothert and his staff horticultural therapist, Rena Huber, began expanding the program to a wider variety of facilities. Still focused on institutional clients, in 1983 Huber envisioned future expansion to psychiatric, deaf/blind, and correctional client groups, building on her own formal training as a registered nurse.[67] The focus on ever-broadening audiences suggests the high standards of the horticultural therapy program as well as that a focus on a geriatric population was never intended to be exclusionary, simply a convenient starting point. Psychiatric and correctional clients introduced goals that were more social in nature and harder to measure, such as "motivation" and "positive reinforcement" rather than exercising stiff joints or improving moods like in nursing homes. While expanding the types of clients served presented another layer of challenges, expansion into new environments was a logical next step for the program.

The program staff's willingness to expand into correctional facilities also suggests something deeper about what staff at the Chicago Botanic Garden believed to be the nature of horticultural therapy. First, horticultural therapy was about providing healthful experiences to confined or otherwise restricted individuals. Those confined to psychiatric hospitals, senior citizens homes, children's hospitals, and correctional facilities were all equally appropriate program participants because they all had limited access to verdant landscapes. These horticultural landscapes were considered to be a healthful goal and much better for inspiring positive social outcomes than harsh urban landscapes

[67] "1983 Objectives and Long Range Plan." Eugene A. Rothert, Rena Huber, Nancy Clifton, and Meegan McCarthy, "Urban Horticulture: It Makes a Difference," *Garden Magazine* 9, no. 6 (November/December 1985): 1-4.

constructed from man-made materials. Second, horticultural therapy was to be aimed at the improvement of post-therapeutic outcomes, particularly the overall health of individuals after their release. Programs in all settings (except perhaps geriatric ones) were designed to answer the question: how would the program translate to life after rehabilitation? Helping to improve recidivism rates through job training in horticulture would follow this pattern.

More immediately, CBG staff put these beliefs into practice with hospitalized children in 1984 at the Children's Memorial Hospital of Chicago. Enticed to work together by a belief that each institution would improve the reputation of the other, the partnership was initiated by Robert Carr who served on the Woman's Board of both organizations, a partnership reminiscent of that with the Chicago Horticultural Society's Garden for the Blind in the 1950s.[68] Horticultural and hospital staff collaborated on a once-a-week program that inhabited an inner courtyard of the hospital and involved fifteen of the hospital's two hundred fifty-six patients each week. These children, from infants to teenagers, faced a variety of physical challenges, and most stayed fewer than three weeks at the hospital, meaning the therapy program had to be designed to engage children with diverse abilities, interests, and levels of gardening experience in a relatively short period of time.[69]

While the program was now led by professionally trained medical and horticultural staff, volunteers were integral to the success of the program, just as they had been in the 1950s and 1960s. Before children came down weekly for the program, led in

[68] Rena J. Huber and Eugene A. Rothert, "Impressions of Using Therapeutic Horticulture for Hospitalized Children," *Garden Magazine* 9, no. 1 (January/February 1985): 1-4.
[69] Huber and Rothert, "Impressions."

alternate weeks by CBG and Children's Memorial Hospital staff, preparations were made to ensure each child's medical needs were met. Based on these needs, staff and volunteers prepared a leaf name tag for each child with information about their dietary restrictions, letting volunteers know immediately whether each child could have a can of juice or a taste of one of the project vegetables. Once properly labeled, the children and volunteers could easily reference a poster of "Today's Things to Do in the Garden," and make their choice of planting marigolds, observing the sensitive plant with a hand lens (and a hand) in the Discovery Corner, or just observing others. While horticultural therapists were on hand during the weekly session, patients could visit the courtyard at other times to take stock of the development of the marigolds.[70]

However well-supported this program was by public opinion, volunteers, and a strong partnership, a number of challenges made it a poor candidate for export and replication. First, the interior courtyard was a challenging environment with low light. CBG staff brought marigolds with them each week and removed the old plants—which were already failing—before allowing children to plant new individuals during their therapy session in the garden. This was generally unproblematic from a program standpoint, the staff thought, as children seldom stayed in the hospital for more than three weeks and therefore were not there to see their work uprooted.[71] It did mean that the program was not self-sustaining and would need constant horticultural inputs. The three-week average stay also limited the depth of the program. Finally, there was not a big local audience for the programs; children's hospitals were in limited supply.

[70] Huber and Rothert, "Impressions."
[71] Huber and Rothert, "Impressions."

With a strong program aimed at seniors in long-term care facilities as its backbone and frequent forays into other programmatic opportunities, the horticultural therapy program at CBG had become entrenched in the institution by the mid-1980s. Rothert, Huber, and others had defined a systemized program for geriatric populations that was reliably replicated with sustainable and fiscally responsible results. They received constant requests for assistance in the form of participation in this program, workshop attendance by local professionals, and national inquiries. The program continued to look for ways to grow and received awards from external groups and internal recognition. Perhaps the most obvious display of managerial confidence in the program was the decision in 1982 to make Rothert the head of numerous new programs in a novel urban horticulture department.[72] His leadership of horticultural therapy would, ideally, be transferable to other community horticulture programs in the Chicago area.

The more established nature of the horticultural therapy program at CBG was part of a broader national trend toward professionalization and the positive reputation of the field of horticultural therapy. In just three years, between 1978 and 1981, Joyce Lain Kennedy, syndicated career columnist, gained significant confidence in the job prospects for the field. In 1978, she was hedging her bets for those trained in the field, suggesting their education would be transferable if the job market was weak; but by 1981, a career in horticultural therapy seemed a natural option for someone interested in people and plants.[73] Kansas State University, the first university to offer an undergraduate

[72] Eugene A. Rothert, "The Greening of Chicago," Folder 4: Papers Written by Gene Rothert on Urban Horticulture and Buehler Enabling Garden, Box 1014, CHS.
[73] Joyce Lain Kennedy, "Horticultural Therapy Technician," *Minneapolis Star*, May 29, 1978. Joyce Lain Kennedy, "Put Your Green Thumb to Work," *Minneapolis Star*, January 9, 1981.

curriculum in horticultural therapy beginning in 1972, had by 1981 developed a job bank that received five hundred twenty-five listings per year, but the eight universities nationwide with programs in the field produced only twenty-five total graduates per year.[74] The same year, Nancy Chambers, a member of the board of directors of the National Council for Therapy and Rehabilitation remarked on a marked increase in the general public's name-recognition of the field.[75] The New York Botanical Garden reported their classes on the subject were overflowing with interested special education teachers.[76] In sum, the field itself was becoming more stabalized and outside interest was growing. As a young institution, CBG was able to take advantage of this in multiple ways. They acted nimbly to build a program in line with the latest standards, and they took advantage of increasing recognition nationwide to drive clients and public support toward their programs.

A Time of Transition: Research and Outreach at CBG

Alongside the horticultural therapy program, the horticultural footprint of the garden, and other education programs, research programs continued to develop at CBG during the late 1970s and early 1980s, but they did so to a more limited extent. Annual reports during this period fail to mention research at all, indicating it was not a

[74] Kennedy, "Put Your Green Thumb to Work." The horticultural therapy program at Kansas State was a collaboration between the psychology and horticulture departments and included a 7-month internship experience in the field. G. Tereshkovich, "Horticultural Therapy: A Review," *National Council for Therapy and Rehabilitation through Horticulture, Lecture and Publication Series* 1, no. 1 (February 1975): 14.
[75] Joan Lee Faust, "Plants as Therapy Are More Popular," *New York Times*, September 10, 1981.
[76] Faust, "Plants as Therapy."

managerial priority, but there was a research committee on the board and growth was slow but ongoing. In 1981, the Chicago Horticultural Society provided financial support for a seed exchange between the United States and Japan, and in intervening years, Kathy Freeland, plant propagator at CBG, had prepared the seeds, which had finally been planted in 1984. The garden's plant evaluation specialist, Don Brennan, began to select for cold-hardiness, flowering traits, ornamental foliage and bark, and weather and disease resistance in 1985. The Pullman Evaluation Garden was established in 1982 and was at the heart of the garden's research program—at this point mainly focused on Chicago-hardy plant introductions. In 1984, CBG taxonomist, Dr. Thomas Antonio, participated in a botanical exchange program with the Soviet Union for seven weeks and returned with seeds from Russian poppies, Siberian Iris, and primrose and more than two hundred other species, many of which were collected in Siberia or the Caucasus Mountains.[77] At the beginning of 1985, Brennan and Antonio were the entire staff of the gardens' research programs.

The year 1985 was one of change for CBG and especially the garden's research program after the resignation of Mecklenburg and the hiring of Dr. Roy L. Taylor as his replacement. Mecklenburg resigned under a cloud of suspicion. Garden employees alleged that he had been aware of poaching in the garden and taken no action to stop the illegal activity. While nothing indicates that this was the direct cause of his departure, it is clear that the board was pleased to accept his resignation. Board chairman Ralph Bard, Jr. wrote that requirements for the director's position had significantly changed between

[77] Chicago Horticultural Society, *Annual Report 1985*, 18-19. William Aldrich, "From Russia with Seeds: A Scientists' Soviet Odyssey May Bring New (Plant) Life to Chicago," *Chicago Tribune*, November 30, 1986.

1977 and 1985.[78] He implied that Mecklenburg was no longer qualified. These major new expectations for a director of a botanic garden were not specified, but changes at CBG brought by its new director, Dr. Roy L. Taylor, and changes at other botanic gardens across the country suggest that fundraising and research development were two important aspects.

The qualifications for a director of a botanic garden had been rapidly changing, putting far more emphasis on fundraising and deemphasizing horticultural and botanical training. The New York and Brooklyn botanic gardens exemplify this trend. In December 1979, Brooklyn Botanic Garden posted the following position description for their new director:

> "*Demonstrated leadership* in imaginative planning, decision making and administration of the scientific, educational and community service functions of a major botanical garden. *Professional training* (preferably earned doctorate) in or related to botany or horticulture. *Understanding of fiscal management* of non-profit organizations and ability effectively to represent the institution in seeking private or public support [emphases original]."[79]

In 1980, Brooklyn Botanic Garden named Donald E. Moore director, demoting Elizabeth Scholtz to vice president after eight years of leadership. A Brooklyn local, Moore's primary qualifications for the role were his experience as president of the Downtown Brooklyn Development Association and the New York Chamber of Commerce and Industry. He had the connections to local businesses and non-profits that would facilitate fundraising success but no professional training in horticulture or botany.[80] By 1990, he

[78] "Botanic Garden Director Resigns," *Chicago Tribune*, January 9, 1985.
[79] "Position Available," *American Association of Botanic Gardens and Arboreta Newsletter* 60 (December 1979): 5.
[80] "Donald Moore Named Botanic Garden Head," *New York Times*, June 28, 1980.

had raised $30 million for capital projects and increased the garden's membership to the largest in the nation at 25,000, more than tripling it.[81] Also in 1980, James H. Hester was elected director of the New York Botanical Garden. With a Ph.D. in international affairs from Oxford, his primary qualification for the role was his transformational leadership of New York University, which he transformed from a struggling commuter school into a world class university as its president from 1962-1975.[82]

At the New York Botanical Garden, Hester's primary role was fundraising, but he did so with a focus toward research. In 1981, he transformed the garden's research program by shifting its focus from taxonomy to seeking solutions to "urgent social and ecological problems." The Institute of Ecology would focus on ecosystem degradation in the Northeast, the Institute of Economic Botany would investigate food plants of subsistence societies as possible agricultural crops, and the Institute of Urban Horticulture would identify and develop new urban landscape plants.[83] Not abandoning taxonomy, one of Hester's major capital projects was a $21.4 million addition to the garden's museum building, including a 75,000 square-foot herbarium wing.[84] The 1980s were a decade of growth for the nation's preeminent botanic gardens. If the Chicago Botanic Garden wanted to keep up, changes were necessary.

[81] Marvine Howe, "Botanic Garden Loses a Leader, Gains a Legacy: Head of Big Expansion in Brooklyn Retires," *New York Times*, July 5, 1990.
[82] Sam Roberts, "James Hester, 90 Dies; Guided N.Y.U. to Become a Major University," *New York Times*, January 6, 2015.
[83] Deirdre Carmody, "New York Botanical Garden Plans Study of Global Ecology Problems," *New York Times*, July 6, 1981.
[84] Susan Heller Anderson, "Bronx Botanical Garden Plans an Expansion," *New York Times*, February 24, 1988.

Moore, Hester, and, ultimately, Taylor were in line with expectations for a director published in the January 1981 volume of the *American Association of Botanical Gardens and Arboreta Newsletter*. Following a survey of botanic garden directors across North America, two garden leaders concluded the criteria for a garden's leader:

1. A director must maintain a keen interest and knowledge in that *raison d'être* of botanic gardens/plants. Knowledge of plants seems essential whether it be from experience or academic training, or both. Botany and horticulture should be the focus of academic coursework. A Ph.D. is a good idea.
2. A director must know about botanic gardens and arboreta in order to offer creative leadership to his institution. This can be gained through reading the publications of the various botanic gardens, visiting botanic gardens and through communications with employees at all levels in botanic institutions. It can be gained by following the affairs of the American Association of Botanical Gardens and Arboreta and other organizations with similar purpose. It can be gained by working in a public garden. Each garden is different.
3. Most important, a director must have administrative and leadership skills. He must know how to deal with people, staff, trustees, colleagues, members and general public. He must know how, when and where to consult a specialist. He must know how to set the right priorities within his specific institution. He must be able to bring together into an efficient, functional, dynamic and exciting unit the horticulture, education and research that makes each botanic garden and arboretum vital.[85]

Taylor fit these suggested qualifications with demonstrated experience much more closely than the directors of either of the New York gardens. He came to the garden from Vancouver, where he had been director of the University of British Columbia Botanical Garden and a department head, roles where he had honed administrative and leadership programs and gained knowledge about botanic gardens

[85] Katy Moss Warner and Michael J. Balick, "Directors—What Are They?" *The Bulletin - American Association of Botanical Gardens and Arboreta* 15, no. 1 (January 1981): 29-31.

more generally. This included developing a horticultural therapy program in cooperation with the GF Strong Centre in Vancouver, sponsoring a botanical art show that traveled North America, and establishing a plant introduction program for northern-hardy plant cultivars.[86] His expertise in research, conservation, and botanic garden leadership was recognized even more broadly in 1987, when he was named founding director of Botanic Gardens Conservation International, an international network of botanic gardens working to conserve threatened plants.[87] Therefore, he had specific experience working in botanic gardens. He also had a Ph.D. in botany from the University of California, Berkeley—an important qualification that had been glossed over in favor of fundraising experience in New York.

While support for landscape development, education, and community horticulture programs continued during Taylor's tenure, he leveraged his skills to prioritize and expand the research program at CBG. In 1986, Taylor used the annual report to reflect on the horticultural society's programs and policies as he had watched them in his first year of leadership. The only major change he chose to note as an outcome of this process was an overhaul of the plant collections policy. Moving forward, there would be three emphases: 1. Demonstration display collections illustrating aesthetic landscapes adapted to the Chicago area, 2. Research and evaluation collections for development of new plants for public use, and 3. Conservation display collections that exemplified its "continuing dedication…to conservation…and accept[ance] as a member of the

[86] Janet Stein Taylor, "Tribute to Roy Lewis Taylor," *Botanical Electronic News*, no. 471, August 2013), https://www.ou.edu/cas/botany-micro/ben/ben471.html.
[87] Iain Taylor, "Robert Lewis Taylor (1932-2013), *Botanical Electronic News*, no. 471, August 2013, https://www.ou.edu/cas/botany-micro/ben/ben471.html.

International Union for Conservation of Nature and Natural Resources." He further articulated that he hoped to "establish the Chicago Horticultural Society as a leading non-government agency for conservation."[88]

Taylor had already begun taking steps to improve the research program. In December 1985, he hired Richard G. Hawke as a plant evaluator nearly straight out of a bachelor's degree program in horticulture at the University of Wisconsin.[89] Taylor took on personal leadership of the research program in addition to his other roles as president and CEO of the garden and horticultural society. These men were the core of the garden's research program until 1994. Meanwhile, Taylor's fundraising goals included research as a primary aspect of development. In 1990, a $25 million capital campaign for the garden was initiated. One outcome of this was the Daniel F. and Ada L. Rice Foundation Plant Resource Center and an endowed research chair for the plant research program, both of which came to fruition in 1995.[90] The plan was to expand endangered plant research and continue applied breeding work.

As the capital campaign and national standards for botanic garden directors suggest, there were many leaders in Chicago and the field pushing for higher standards of research at the Chicago Botanic Garden, and Taylor's personal priorities as a leader also supported importance of research at the garden. Beyond his willingness to supervise the research program directly, perhaps nothing better illustrates Taylor's personal dedication to botanical research than the context of his departure from the garden. He left to become

[88] Chicago Horticultural Society, *Annual Report 1986*, 6-7.
[89] Richard G. Hawke, Curriculum Vitae, accessed September 6, 2019, https://www.chicagobotanic.org/collections/staff/hawke.
[90] Chicago Horticultural Society, *Annual Report 1995*, 8.

the director of Rancho Santa Ana Botanic Garden in California. As he explained: "a unique opportunity was offered to me by the Ranch Santa Ana Botanic Garden, which will enable me to complete research projects related to California flora," a position which included directing graduate students as the chair of the graduate botany department at Claremont Graduate University.[91] At CBG, Taylor acted to increase the garden's research capacity, but in California, he would be able to conduct research of his own.

However, in parting, Taylor was recognized for his well-rounded contributions to the garden. These included completion of nine display gardens, the implementation of a program for school children (Collaborative OutReach Education), and the transformation of an "amateurish" botanical research program into an internationally acclaimed program for developing urban plants, according to the *Chicago Tribune*.[92] Together, these programs supported CBG's growth as an institution with a nationally-ranked membership pool and nationally-recognized programs.

Conclusion

During the first three decades of the Chicago Botanic Garden's development, its research programs developed slowly, despite the fact that they were an integral part of the marketing effort for the garden's initial fundraising drive. Pullman and other leaders had envisioned chemical environmental testing. Instead, the 1970s brought a few lawn, street tree, and lily trials to the garden. Into the 1980s, a plant breeding program developed but

[91] LeAnn Spencer, "Botanic Garden Director Quitting for Job in West: Roy Taylor Plans to Research California Flora," *Chicago Tribune*, August 5, 1994. Iain Taylor, "Robert Lewis Taylor."
[92] Spencer, "Director Quitting."

ecological research remained absent, while horticultural and ethnobotanical research began to grow under Taylor's leadership.

In contrast and due in large part to previous experience of staff, the garden's horticultural therapy program grew much more quickly during this early time period. By 1972, the horticultural society staff and volunteers already had two decades of experience in horticultural therapy programs. Well-respected and widely recognized locally, these programs received far more grant funding than research programs and had a national reputation, something the research program could first claim only at the end of the 1980s with the success of the Chicagoland Grows breeding program. Buoyed by an increasing reputation of horticultural therapy nationally at the same time, the horticultural therapy program at CBG professionalized and deeply embedded itself at the garden. The therapy program also more quickly gained momentum within itself as early staff members remained with the garden for extended tenures.

While precedence and experience impacted the relative development of education, horticulture, and research programs at the garden, leadership priorities played an essential role in how these areas were prioritized and the ways in which specific programs developed. At the executive level, directors' personal priorities had a direct impact on the extent to which research was prioritized at the garden. De Vos had some background in research management and initiated a research program at a botanic garden but was understandably more concerned with developing the gardens three-hundred-acre landscape during his tenure at CBG. When Mecklenburg arrived in 1977, research became even less of a priority in favor of education and garden development. In contrast, Taylor's arrival in 1985 marked a significant shift. He clearly prioritized research in the

annual report, his stated priorities, and his personal leadership of the research department. The board's decision to hire Taylor, who was well-known at the University of British Columbia for his botanical research and horticultural research program suggests this shift was a deliberate choice by the CBG leadership.

Leaders such as Taylor and Rothert made an impact at a more personal, finer-grained level of program development as well. In 1986, Taylor founded the Chicagoland Grows program at CBG in collaboration with the Morton Arboretum and Ornamental Growers Association of Northern Illinois, merely a year after joining the garden as its leader. This program, which sought to develop landscape plants that would be hardy in urban northern environments like Chicago and its suburbs was patterned on the program Taylor had created as director of the University of British Columbia's botanic garden.[93] No one else would have created a breeding program in quite the same way. While Rothert had many logical reasons to choose nursing homes including the fact that they lent themselves to easy and economical program reproduction, he also personally preferred working with geriatric patients. Horticultural therapy and research may have been equally successful under other leaders, but Rothert inevitably put his own stamp on the program he built.

While these decisions and developments were directed by individuals, they ultimately happened under a larger ambition to become one of the leading botanic gardens in America. This expectation came from both internal sources like the board and directors of the garden and external expectations from Chicago and beyond. As de Vos and the *Chicago Tribune,* quoted above, indicated, they judged CBG's performance not

[93] Taylor, "Tribute to Roy Lewis Taylor."

by simple improvement but by whether or not the garden had acquired a national status. CBG did not choose just to produce a national gardening publication, they joined as partners on the New York Botanical Garden's venture. They did not just have another horticultural therapy program; they had one that was consulted by New York Botanical Garden for reference in developing their own. It was never CBG's intention to be just another botanic garden. Its leaders believed the Second City could perhaps have the second best, or even the best, botanic garden in the nation. This pressure would continue to influence the development of the garden and its education and community horticulture activities.

Chapter Three: Growing a Community and Planting a Garden

In early October 1979, Charles Lewis gave his conference presentation on "Human Dimensions of Horticulture," to the members of the National Council for Therapy and Rehabilitation through Horticulture who were gathered for their seventh annual conference in the auditorium of the Chicago Botanic Garden. In his presentation, Lewis made the case for the important role of plants as a tool for the benefit of humans, saying, "Horticultural therapy is concerned with manipulation of plants, not as an end in itself, but rather as a means of achieving specific benefits for people. This view is in sharp contrast with the typical horticultural concern which focuses on plants."[1] In other words, horticulturalists had generally been focused on creating beautiful and healthy plants, but Lewis saw horticultural therapy as the bridge toward thinking about the applications of these plants for the direct benefit of people more consciously. While his goal seems uncontroversial among a crowd of horticultural therapists, the examples he employed were somewhat more so.

As noted in chapter two, horticultural therapy has always been a field with contested boundaries. Earl Copus, Jr.'s keynote address at the conference articulated this grey area. Copus outlined the two primary factions as those who were horticultural therapists—that is those who worked in the medical field as doctors, occupational therapists, and psychiatrists—and horticultural rehabilitation specialists—those whose

[1] Charles A. Lewis, "Human Dimensions of Horticulture," in *"Growth and Professionalism": Seventh Annual Conference, National Council for Therapy and Rehabilitation through Horticulture* (Glencoe, Illinois: Chicago Horticultural Society, 1979), 31.

work took place in vocational settings.[2] Lewis' discussion of the role of plants in improving the lives of people put him on an extreme end of this discussion as he spent his talk discussing community gardens at public housing projects in New York, Philadelphia, and Chicago, activities that even many advocates happy to include vocational training within horticultural therapy would have rejected as part of the field.[3] Such activities provided vocational training but were more likely to be considered therapeutic in a more general sense. This distinction would become important to the classification and implementation of community horticulture programs at CBG.

By the time he published his book-length work on the plant-people connection in 1996, Lewis had begun to consistently articulate a distinction between horticultural therapy and urban gardening. However, he continued to talk about them in the same breath and as different by a matter of degrees.

> "Major differences between the effects of urban gardening and horticultural therapy are a matter of perspective and detail. Through gardening, neighborhood residents ameliorate the trauma of social and economic handicaps, and the resulting friendliness and improved neighborhoods are large-scale consequences. Horticultural therapy, on the other hand, is concerned with people-plant interactions in a much more intimate way. Its primary purpose is to promote the well-being of individual patients, and plants become byproducts of the healing process."[4]

Building relationships between people and plants is natural, Lewis argued, and these relationships also have powerful effects in all humans who experience stress.

[2] Earl Copus, Jr., "Defining Therapy and Rehabilitation Through Horticulture," in *"Growth and Professionalism": Seventh Annual Conference, National Council for Therapy and Rehabilitation through Horticulture* (Glencoe, Illinois: Chicago Horticultural Society, 1979), 1-2.
[3] Lewis, "Human Dimensions of Horticulture," 36-38.
[4] Charles A. Lewis, *Green Nature/Human Nature: The Meaning of Plants in Our Lives* (Urbana and Chicago: University of Illinois Press, 1996), 75.

In particular, Lewis believed that community gardens had something particularly powerful to offer individuals in communities that were struggling with cohesion and the challenges of immigration, racism, and poverty. "It's very natural that people express their ethnicity through their garden…And the community gardens…there's an enhanced sense of neighborliness. Socio-economic and racial distinctions are erased. If you grow the best tomato, everyone wants to know how you do it, regardless of your language or color."[5] Community gardening projects could give autonomy and self-worth to individuals in the same way that more traditional horticultural therapy projects did.

Charles Lewis, who was employed as a horticulturalist and research fellow at the Morton Arboretum outside of Chicago from 1972 until 1992, never worked for the Chicago Botanic Garden, but his point of view had an impact on and contextualizes the nature of public outreach at the Chicago Botanic Garden and the extent to which it was considered horticultural therapy. His reputation as a leader in horticultural therapy, his foundational work in community gardening in Chicago and New York, and his personal connections with CBG through the arboretum made him a regular influence in program development at CBG.[6]

Lewis first entered the realm of public gardens in 1960, when he became a horticulturalist at Sterling Forest Gardens in Tuxedo, New York, an amusement park in a natural area. Three years later, he became an inaugural advisor for the New York City Housing Authority Garden Contest. On the ground floor of the first wave of community

[5] Barbara Sullivan, "Ethnic Roots: Preserving a Rich Heritage Through American Soil," *Chicago Tribune*, August 13, 1987 in Folder: Portfolio-Hist. Green Chicago, RS.
[6] Douglas Martin, "Charles Lewis, 79, Proponent of Therapeutic Value of Gardens," *New York Times*, January 11, 2004.

gardening after the victory gardens of World War II, Lewis' reputation grew as he became a consultant to Lady Bird Johnson's Committee for a More Beautiful Capitol. In 1972, Lewis moved to Chicago, where he worked as a horticulturalist at the Morton Arboretum in addition to coordinating the American Horticulture Society's Plant/People program and becoming an advisor for the Chicago Housing Authority's new garden contest in 1973. While based in Chicago, Lewis received national recognition, including serving as the director of the American Association of Botanical Gardens and Arboreta (now the American Public Gardens Association) from 1990 until 1993.[7] His reputation spread across any boundaries between horticultural therapy and community horticulture, receiving awards from city housing authorities, the National Council for Therapy and Rehabilitation through Horticulture, the American Horticultural Society, the United States Department of Agriculture, the American Horticultural Therapy Association, and the American Association of Botanical Gardens and Arboreta.[8]

As this broader face of public horticulture was opening up in Chicago and nationwide in the early 1970s through the work of Lewis and others, including the urban cooperative extension program funded by the federal government beginning in 1976, the horticultural therapy program at CBG remained committed to a different style of programming. Although horticultural therapy staff at CBG initially ran programs in both medical and rehabilitation settings, they became focused in nursing homes where programs became a specialized form of occupational therapy. Beginning in 1982,

[7] "Collection – Charles A. Lewis Papers," Richard L.D. and Marjorie J. Morse Department of Special Collections, Kansas State University, accessed October 8, 2019, https://findingaids.lib.k-state.edu/charles-a-lewis-papers.
[8] "Collection – Charles A. Lewis Papers."

however, other staff at CBG were hired to diversify the garden's overall approach to connecting to the community through horticulture. In particular, new community horticulture projects supporting community gardens and community greening began to spread the botanic garden's resources across the city and indeed across the country. The people who brought these resources to Chicago communities were typically environmentalists and experts in horticulture, but their goals in the community were broadly therapeutic. The Chicago Botanic Garden was among the first botanic gardens to adopt the project in a formal way. Horticulture was to be a vehicle to develop healthier, more connected, and more stable communities.

The Community and the Botanical Garden: A Complicated Partnership

In 1982, the Chicago Botanic Garden received two grants that expanded their reach into the community and precipitated the formation of its urban horticulture department. Appointed as head of this department, Eugene Rothert hired Rebecca Severson in 1982 to lead the garden's charge into the community. Severson was primed for the position with experience working in urban gardens with the University of Illinois' Urban Extension program. She had managed large community gardens where Chicago residents, primarily immigrants and minorities, could rent garden plots to grow food. Despite the relevance of her horticultural training, Rothert pointed out, "Becky's major talent is as a community organizer. She is very good at going out and starting a program from scratch," and that he hired her for these very skills.[9] Severson was to build a functional, sustainable program, but Rothert recognized that the way she would do this

[9] Patrick Barry, "Green is Color of Her Dreams for Chicago," *Chicago Sun Times,* July 16, 1982, Folder: Portfolio-Hist. Green Chicago, RS.

was through relationships in the community. Severson's focus was on making gardens and communities flourish. As she pursued this work, she counted a lecture by Lewis as one of her formative experiences and Lewis himself as her mentor, reading his books, inviting him to present at the community garden conference she organized, and meeting with him. Lewis encouraged Severson to continue her work in the community.[10]

Cliff Zenor, who was later hired to lead the Gardening Resources On Wheels (GROW) Program in 1989, had interests and skills similar to those of Severson. Zenor, like Severson, had worked previously in community garden projects that were owned by a non-profit organization who rented plots primarily to immigrants and people of color. In addition to this work in Milwaukee, however, Zenor also had a decade of experience earning a bachelor's degree in horticulture, working at a nursery, responding to plant disease questions in person and on the radio, and starting and running a church-yard community garden.[11] Together, these experiences prepared him to help community gardens but also to attend community events on a more informal basis—a continuation of the mission of his predecessor program, the Plantmobile. Like Severson, Zenor remained passionate about the work on the ground in neighborhoods and less concerned about things like budgets, public relations, and other managerial concerns. He preferred to get his hands dirty in the community—a divide that resulted in friction between Zenor and Rothert over the goals of the program.

Rothert was younger than both of them and had less job experience, and yet he was put in charge of the urban horticulture department. Zenor, of course, was not even in

[10] Rebecca Severson, interviewed by Reba Luiken, August 24, 2018 in Evanston, Illinois, 14.
[11] Cliff Zenor, interviewed by Reba Luiken, August 17, 2018 in Mishawaka, Indiana, 2.

Chicago in 1982 when the department and its programs began, but Severson was, and she already had experience with community gardening in the city of Chicago, work experience that seems much more relevant to "urban" horticulture than horticultural therapy in suburban nursing homes, which was Rothert's expertise. One reason Rothert was given the job was simply that he had been at CBG for his entire five-year career up to that point.[12] Daubert, CBG's more senior horticultural therapist, had just moved on, leaving Rothert with the longest tenure among available candidates. He got in on the ground floor, leading small staff, and he stayed long enough for the department to grow.

Rothert also had another characteristic that made him managerial material—budget-consciousness. In his horticultural therapy program, Gene Rothert had two main goals, providing engaging horticultural activities that would improve health outcomes of aging patients and maintaining a stable stream of income.[13] He pushed this constantly in his writing, suggesting plant sales and existing occupational therapy budgets at nursing homes as funding streams rather than grants that came from the CBG or elsewhere. He invested in training for nursing home staff, an up-front cost that limited the need for ongoing staff time of CBG employees. The entire premise of Rothert's model was to cultivate a healthy and vigorous early-stage horticultural therapy program at an institution and to leave it to grow on its own. It was Rothert's persistence in grant applications and

[12] Rothert was also a man, though he brought a different perspective to the garden as a result of his experience with disability. Raeann Berman, "Green Therapy for the Disabled," *Kiwanis: A Magazine for Community Leaders* (April 1980): 26-28, Folder 5: Urban Horticulture and Hort Therapy, Box 30G, CHS.
[13] "Horticultural Therapy for Nursing Homes," 1980, Folder 6: Proposals/Chicago Community Trust, Box 20B, CHS.

the development of self-sufficient programs made him an excellent leader in a budget-conscious non-profit world.

Rothert believed an important reason for developing the department's programs was to justify CBG's continued existence at the expense of taxpayers. Continuing as a beautifully landscaped garden space was no longer enough.[14] Like other public gardens, CBG staff felt the need to justify its existence to ensure ongoing public support and they did this by becoming more active in the poorest communities in Chicago where gardening was used to address economic and social issues. Here, based on previous experiences in horticultural therapy, they believed that plants could help to combat more complex issues of poverty, crime, and general community cohesion.

The CBG urban horticulture department did this in four ways. The department was initially included three divisions, the Plantmobile, Horticultural Therapy, and Community Organizations.[15] Sharing the resources of CBG with new audiences, the department changed throughout the next few years by acquiring the Plant Information program permanently and the children's outreach education program on an irregular basis. Among the small staffs of these multiple programs, many resource tasks were shared. The Community Organizations division was christened Green Chicago in 1985.

The primary institutional goal of these programs was to reach outside of established audiences. The Plantmobile provided a way to continue outreach programing

[14] Eugene A. Rothert, Jr., "The Greening of Chicago," *Garden Magazine* (July/August 1982), Folder 4: Papers Written by Gene Rothert on Urban Horticulture and Buehler Enabling Garden, Box 1014, CHS.
[15] Eugene A. Rothert, Rena Huber, Nancy Clifton, and Meegan McCarthy, "Urban Horticulture: It Makes a Difference," *Garden Magazine* 9, no. 6 (November/December 1985): 1-4, Folder 4: Papers Written by Gene Rothert on Urban Horticulture and Buehler Enabling Garden, Box 30G, CHS.

at community events that were already underway, like science fairs at the Field Museum and community festivals. Horticultural therapy programs reached people who could not come to or fully enjoy most of the botanic garden because of physical or mental limitations. Green Chicago engaged people who could not reach CBG primarily because of economic and geographic barriers through neighborhood projects across the central city from the botanic garden.

The Plantmobile program provided one-time presentations and supported connections among members of the urban horticulture department who often worked independently and away from Glencoe. Packed into a 1982 Chevy Hi-Cube van with a roll-up door in the rear and "a traveling billboard" on the outside, the Plantmobile took the resources of the Chicago Botanic Garden on the road. Nancy Clifton, its manager, provided programs on vegetable gardening, indoor plants, herb gardening, plant propagation, holiday decorations, bonsai, terrariums, flower arranging, canning, trees, and many more horticultural topics to groups of children and adults.[16] Clifton also assisted other programs, accompanying Rebecca Severson on trips to inner city high rise public housing at Cabrini Green and other community gardens, answering plant information questions submitted to CBG as she could, and assisting with horticultural therapy projects.

When Cliff Zenor was hired to replace Clifton in 1989, he filled similar roles, although his work became more integrated into community horticulture and less focused on formal presentations requested by community groups. With a mission reoriented in part by a new source of funding, the Plantmobile was re-painted with a new logo and

[16] Rothert, "The Greening of Chicago."

christened GROW. While Zenor still provided over three hundred gardening presentations each year, his work became more focused on urban gardening. He adopted many programs started by Severson: the annual community garden conference, the community garden tour, CBG's annual garden contest for community gardens and horticultural therapy sites, and even, for a time, the Green Chicago program itself.[17] Still, his work was often determined by the answer to the question, "How can I help support my colleagues in the urban horticulture department better?"[18]

In addition to staff support within the urban horticulture department, Green Chicago and other community horticulture programs received extensive support from the grant writing team and material help from the garden. Horticulture staff came to aid community garden start-up activities, but especially in winter months, community horticulture staff worked collaboratively with the development team at the garden to identify likely grants and to craft compelling applications and letters to formal and informal financial channels.[19] This funding and the focused support of individuals outside of the urban horticulture department who publicized these programs to financial supporters was essential to their sustained presence at CBG.

However, Severson developed the structure of the Green Chicago program quite independently from the oversite of Rothert and other CBG leadership, especially during its early years. It was an entrepreneurial project and Severson brought to it an entrepreneurial spirit and post-graduate training in horticulture gained in a job corps

[17] Zenor Oral History, 9.
[18] "Chicago Botanic Garden Outreach Programs," January 7, 1997, Folder 8: Various Outreach Programs, Box 16C, CHS.
[19] "Urban Outreach Funding Plans," November 1, 1993, Folder 5: Urban Horticulture Programs 1987-1993, Box 1014, CHS.

program and while working as a community horticulturalist at the University of Illinois' Cooperative Extension Service in Chicago, a program initially begun in 1976 with federal funding from the United States Department of Agriculture. During her first year on the job at CBG, Severson implemented a wide variety of gardening projects in cooperation with community groups. She served as an information clearinghouse, providing basic printed outlines for how to complete multiple community garden start-up steps including lot evaluation forms that would aid in the selection of a prosperous site for a new garden, an outline of how to do a title search for the selected lot at the county offices to obtain permission for its use, and a set of guidelines for the entire process of "Starting a Community Garden."[20] Severson was also available for hands-on assistance. A group could contact her for a demonstration of how to take a soil sample to test for the presence of toxic lead and other chemicals, clear debris from a vacant lot, compost, prepare garden soil, plant seeds or seedlings, or mulch their gardens more efficiently. These one-time workshops provided a practical, on-site knowledge infusion for new or established community gardens. In 1982, Severson started an annual community gardening conference in Chicago, one of her ongoing flagship programs (see below).

She worked in partnership with local organizations to start individual community gardens. In Pilsen and Bucktown, she started community gardens in the style of future Green Chicago projects, partnered with the staff at the Infant Welfare Center in Lincoln Park to beautify the grounds, supported a Community Solar Greenhouse in South Woodlawn, created a landscape plan for Albany Park Baptist Church, and developed a

[20] Rebecca Severson, "Community Gardening Chicago-Style," *New Chicago*, Spring 1983, Folder: Portfolio-Hist. Green Chicago, RS.

community garden nursery bed in Uptown in partnership with horticulture students at Triton College, a community college west of Chicago.[21] Alongside these larger projects Severson organized booths for local fairs, sent out information on "recycling vacant property" to select landholders in Chicago, and compiled a list of her available services. This list, however, was never distributed because she was too busy fielding incoming requests.[22]

One of Severson's Green Chicago projects during her first spring on the job reflected her previous organizing skills. In her own neighborhood, Rogers Park, Severson partnered with the leaders of four newly formed block clubs and a member of the 49th Ward Parks Committee to form the East Rogers Park Committee for Arbor Day. The project began with an Arbor Day clean-up of the neighborhood and was followed three weeks later by a planting day across the neighborhood accompanied by horticultural presentations and trainings from botanical garden staff.[23] Already acquainted with other organizers in the neighborhood through political work, Severson believed East Rogers Park was an excellent candidate for the Green Chicago program because of its diversity—its residents were about one third each black, white, and Latino—and because of the high percentage of rental units in the neighborhood.[24] Ideally, a community-focused Arbor Day could build a sense of connection and pride within the community.

The event itself was deemed a success by CBG and the *Rogers-Park Edgewater News*. Over one hundred volunteers from eighteen block clubs and community groups

[21] Eugene A. Rothert and Betty Bergstrom, "Letter to Joyce Foundation," 1982, Folder: Portfolio—Green Chicago, RS.
[22] Rothert and Bergstrom, "Letter to Joyce Foundation.".
[23] Barry, "Green is Color of Her Dreams for Chicago."
[24] Severson Oral History, 16-19.

fanned out over twenty-six garden sites across East Rogers Park. Using donated flowers from local nurseries, they "transform[ed] street corner parkways, traffic islands and business strips into colorful celebrations of nature" with petunias, canna lilies, and snapdragons.[25] While residents like Andy MacDonald had already been sprucing up the Joyce Kilmer traffic triangle at Rogers and Ashland for years, he welcomed the help and the contribution of plants. Elsewhere in the neighborhood, toddlers picked dandelions and Cub Scouts worked on sidewalk planters across from their school, St. Ignatius, helpfully shoveling dirt into huge buckets and at each other. In one set of planters, the Chicago Horticultural Society trialed its new hibiscus, *Hibiscus noscheutos* 'Southern Belle" to see how well it would hold up in the city.[26] The project was repeated the following year, when it was imbued with even more of a festival feeling. Neighbors gathered to join in a cleanup across the East Rogers Park neighborhood and to "Toast the Trees" with folk music, sassafras tea, speeches by area children, and the planting of eight ash trees in front of the newspaper office.[27] The funding provided by CBG made all of these activities a reality, but the community horticulture activities themselves remained similar to those in other cities where a botanical garden was not involved in the process.

Severson focused on translating horticultural knowledge, of which the botanic garden was a reservoir, to match the immediate needs of community gardeners. To gardeners who were most interested in flowers and herbs, she recommended "the die-hardy dozen" of vegetables including plants like green onions, leaf lettuce, kale, and

[25] Barry, "Green is Color of Her Dreams for Chicago."
[26] "Letter to Joyce Foundation."
[27] "Area Cleanup Starts Saturday," *Rogers-Park Edgewater News,* April 1983, Folder: Portfolio-Hist. Green Chicago, RS.

sweet potatoes which were hard for even beginners to kill.[28] She also wrote a quarterly horticulture column for the *Heartland Journal*, which was published by a café in Rogers Park, that cataloged suggestions for gardeners in each season. In the winter, she recommended consulting seed catalogs, researching indoor start dates, making a garden plan, and keeping a five-year diary to improve garden techniques over time by learning from past successes and failures.[29] In the spring, she offered direct advice for new gardeners to hear: it is good to start small so as to not overwhelm yourself at first, thin ruthlessly so plants have plenty of room to grow healthy, and mulch thickly to reduce weeding and watering.[30] In mid-summer, with the first set of crops in the ground, her suggestions continued: "There are still twenty-four different vegetables that can be planted from now until September 1st" for a fall, cool-season harvest.[31]

An important concern for gardeners was vandalism. Keeping weeds at a minimum maximized community respect and pride for a garden space, reducing vandalism by making it clear that people cared about a space. While weeding was a horticultural requirement, Severson's solutions were human interventions. She suggested work-and-weed days in the summer and fall for the common areas, assigned people responsibility for pathways and fences adjacent to their plots, and helped community groups decide on penalties for weedy plots. Taking care of common areas that offered

[28] Nancy Maes, "Plant Your Roots in a Community Garden Plot," *Chicago Tribune*, March 6, 1987, Folder: Portfolio—Green Chicago, RS.
[29] Rebecca Severson, "Green Dreams for 1984," Rebecca Severson, *Heartland Journal*, Winter 1983, Folder: Portfolio—Green Chicago, RS.
[30] Rebecca Severson, "Community Garden Contest," *Heartland Journal*, Spring 1984, Folder: Portfolio—Green Chicago, RS.
[31] Rebecca Severson, "Plant Now for Fall Harvest," *Heartland Journal*, Summer 1984, Folder: Portfolio—Green Chicago, RS.

shade, benches, and play areas for children also encouraged people to spend time in the garden and keep watch over it. And, of course, harvesting ripe vegetables regularly kept the garden clean and left little that made it appealing for scavengers of human or rodent varieties.[32] Therefore, organizing without plant know-how could not create a garden, but social management was critical to each garden's success.

The work Severson did to start community gardens and to support community gardeners across the city of Chicago was akin to the work of community horticulturalists across the nation, but by and large, these colleagues did not work at botanic gardens during the 1980s. Instead, they were part of grassroots urban garden groups and horticultural societies. Severson, Zenor, and later staff members at CBG were active leaders of the American Community Gardening Association, but their colleagues from other cities hailed from organizations like the Minnesota Horticultural Society, Cincinnati Neighborhood Gardens Council, and the San Francisco League of Urban Gardeners (S.L.U.G.).[33] Other botanic gardens focused their attention on other types of urban projects like street trees and demonstration gardens.[34] One result of this difference in priorities was that CBG developed the earliest multi-faceted community horticulture program at an American botanic garden, and as such, their staff and program models were primarily imported from other kinds of horticultural organizations.

[32] Rebecca Severson, "Organizing for Vandal-Resistant Community Gardens," *Urban Horticulture Newsletter*, Winter 1987, Folder: Portfolio—Green Chicago, RS.
[33] Denver Botanic Gardens was also involved in the American Community Gardening Association, but its community gardening program was hosted on the garden site and more akin to the Children's Vegetable Garden programs at CBG than Green Chicago. "Community Gardening," *Green Thumb News* 84, no. 2 (February 1984): 4.
[34] "Institutions That Make It All Happen," *Garden Magazine* (November/December 1985): 12-21.

Working with her own experience and that of her network of community horticulture colleagues in the American Community Gardening Association in mind, Severson developed a novel community gardening program at the botanic garden. By her third year, the hallmark of Severson's program became the sustained interactions she maintained with a small group of gardens throughout an entire season, troubleshooting conflicts with plant pests and frustrating neighbors. Selecting a number of applications early, Severson would meet with each group multiple times in the winter and spring before ground could be broken on a community garden. To be chosen, a group had to have at least eight group members devoted to the project.[35] Severson also took into account the sustainability of a particular garden space. While garden sites were less likely to be sold from year to year in low-income neighborhoods because they were less attractive for development, gardens in gentrified areas were often better organized.[36] Balancing these realities, Severson and community gardeners would physically tour the neighborhood to choose a garden plot. They took into consideration both the current use of the lot and its suitability for a garden—namely whether it received six hours of sunlight per day.[37] With a selection in mind, they would hold a community meeting to encourage broad involvement and design the layout of the community's garden, work through legal challenges around getting permission to use the lot and the nearest fire hydrant, and develop enough enthusiasm to sustain the garden. Severson collected slides

[35] Rebecca Severson, "Green Chicago Helps 'Green' Chicago" *Garden Talk* 3, no. 7 (July 1988), Folder: Portfolio-Hist. Green Chicago, RS.
[36] "Green Chicago," 1990, Folder 5: Urban Horticulture Programs 1987-1993, Box 1014, CHS.
[37] Rebecca Severson, "Community Gardening Chicago-Style" *New Chicago,* Spring 1983, Folder: Portfolio-Hist. Green Chicago, RS.

of before and after pictures, both from the Green Chicago program and elsewhere, and used those in a slideshow to inspire new gardeners about the potential for successful transformation of their own rubble-strewn vacant lot.[38]

Once a garden was accepted into the program, its gardeners had access to a deeper level of CBG-enabled resources than Severson's occasional advice columns could provide. In addition to staff labor, the Green Chicago program provided seeds, vegetable transplants, annuals, perennials, shrubs, and trees from the garden along with fencing, soil amendments, and landscaping materials.[39] They also benefitted from coaching and horticultural expertise from a variety of CBG staff. Jeff Sloot, landscape architect for CBG, consulted on the development of community gardens, working alongside CBG horticulture staff and community members to transform vacant lots.[40] In sum, CBG offered a wealth of its own resources along with Severson's knowledge of other assistance channels throughout the city as she worked to deepen CBG's relationship with a select number of community members.

Gardeners contributed the majority of labor, enthusiasm, and purpose to the project and had ongoing relationships with CBG. Once the weather had warmed up and plans had been written out, garden work began. Spring and summer were the busiest times of the year for both Severson and the gardeners. Gardeners were required to work three to six mandatory work days over the course of the whole season, usually weekends

[38] Rebecca Severson, "Chicago Botanic Garden Helps Ease Nationwide Garden Crunch," *Garden Talk* (September 1983), Folder: Portfolio-Hist. Green Chicago, RS.
[39] Rebecca Severson, "Green Chicago Helps 'Green' Chicago," *Garden Talk* 3, no. 7 (July 1988), Folder: Portfolio-Hist. Green Chicago, RS.
[40] K.O. Dawes, "Vacant Lot Becomes Spring Vision," *Chicago Sun Times*, April 13, 1993.

and evenings, to prepare the overall garden. [41] Severson showed up for these events too, putting in long hours during the growing season.[42] During the establishment of the Wabansia garden, for example, the first weekend was dedicated to removing rubble, the second to rototilling the soil and adding manure, and the third to creating paths and erecting fences.[43] Later, they also tested for the lead, cadmium, and nickel that were likely to be in the soil around tear-downs and on vacant lots. While Severson and other CBG staff saw these as part of a broader environmental narrative, they were translated to community members as the practical steps to creating a healthy and enjoyable space in their neighborhood rather than more abstract goals. Then, gardeners were expected to keep down their weeds and help maintain the overall appearance of the garden throughout the summer. Community work days were scheduled variously on Saturdays, after school, and in the evening, so that all community members could attend, especially children.[44] At these times they did physical work, lifting of soil, manure, and railroad ties used to construct raised beds. The CBG provided assistants to help with the heavy lifting. Community gardeners defined their garden with a name and a sign introducing their project to their neighbors. Then, gardeners would tend their own plots throughout the growing season, often working with their neighbors during collective work nights. As Severson's program shifted out of this experimental phase, her working model

[41] Rebecca Severson, "Organizing a Community Garden," *Consumer Nutrition Index*, August 8, 1985, Folder: Portfolio-Hist. Green Chicago, RS.
[42] Severson Oral History, 9.
[43] Patrick Barry, "Gardens All Over Chicago," *Chicago Sun Times*, April 4, 1984, Folder: Portfolio-Hist. Green Chicago, RS.
[44] Rebecca Severson, "Local Garden Helps Pilsen Bloom," *The Neighborhood Works*, April 1985, Folder: Portfolio-Hist. Green Chicago, RS.

became organized around turning three or four vacant lots into community gardens each year.

At the end of the summer, the gardeners would often host a celebration of their work and prepare their garden for the next year. Some gardens established a birthday party tradition. Another hosted a late summer barbeque for the neighbors.[45] Following the celebration of their harvested bounty, gardeners would prepare for the winter. Severson strongly suggested that gardeners remove "dried vines, dead plants, and tall weeds" which looked badly over the winter and provided safe havens for corn borers, cabbage worms, and cucumber mosaic virus.[46] A clean looking garden site would enable a healthy garden the following spring. Similarly, before a garden group scattered for the winter, Severson suggested that they plan their first planting days for the following year to ease the transition backing into gardening.[47] Together these tips suggest the leadership of the Green Chicago program was equally invested in the horticultural and community aspects of community gardens.

Once a system of garden support was operationalized, each group was encouraged to think about the future. During the first year, planning and planting the garden was conducted in partnership, and with extensive involvement from Green Chicago. During the second and third years, staff visited only monthly and then quarterly to answer questions and provide any necessary assistance for each garden, letting each group develop their own priorities along the way. Because of the intensive nature of these

[45] Severson, "Local Garden Helps Pilsen Bloom."
[46] Rebecca Severson, "Leaving the Bugs Out in the Cold," *Green Connection*, Fall 1985, Folder: Portfolio-Hist. Green Chicago, RS.
[47] Rebecca Severson, "Garden Manager Tips," *Green Connection*, Winter 1985, Folder: Portfolio-Hist. Green Chicago, RS.

partnerships, community groups were screened carefully before they were selected, and so the gardens that were selected generally flourished.

Along the way, gardens became centers of activity in ways that were meaningful to the communities in which they were embedded. Many gardens achieved and demonstrated this reality in personally meaningful ways. At the 1900 South Morgan Garden, local Boy Scouts used the space to bring Christmas cheer to the neighborhood, hanging bird feeders and other ornaments in the trees for lonely neighbors to admire in this aging community.[48] At 9027 Commercial Avenue, one of three Green Chicago gardens for 1990, a local artist worked with children to paint a bright mural highlighting the area's natural and human history.[49] That fall, the garden was the backdrop to a wedding between James Solorio, the artist, and his wife, Mary Lou Lumberas.[50] Community gardens became popular community spaces throughout the city.

Groundwork, A Garden Exemplar

One particularly vibrant garden was Groundwork Garden in Rogers Park. In 1983, a dedicated group of neighbors got together to form a community garden. Their first attempt did not go well. Working all spring with the support of Green Chicago to secure land at the corner of Farwell and Lakewood, by the middle of June all attempts had failed. Instead of giving up, seven future gardeners were driven toward other options. Widening their circle of possibilities and narrowing in on a site a half mile away at 1522

[48] Severson, "Local Garden Helps Pilsen Bloom."
[49] "Reaching into the City: The Chicago Botanic Gardens' Urban Horticulture Programs," 1990, Folder 5: Urban Horticulture Programs 1987-1993, Box 1014, CHS.
[50] "Green Chicago Update," *Green Connection*, October 1990, Box 1014, Folder 6: Urban Horticulture Department Files, Newsletter, "Green Connection," 1988-1991, CHS.

Greenleaf Street, the group collectively leased the lot from its owner for the year. The late start meant that the group worked through the heat of July to clear weeds, till the soil, add mushroom compost, and plan woodchip paths through the garden.[51] Severson noted, "All community gardens are unique, but Groundwork is special for two reasons. One, it has always had a written lease; and two, it has no fence."[52]

Long on determination, these gardeners were short on prior experience. To help them get started, Severson tried out a demonstration plot in the garden, a system she knew well from her days working for extension, to use as a teaching laboratory.[53] While the plot helped the group become successful, Severson found that the plot itself was far too difficult for her (or an irregular group of interns) to maintain because of their busy schedules.[54] More successful were her lessons on the cool season plants perfect for planting on August 1 when the garden was finally ready to plant. Green beans, peas, winter radishes mustard, lettuce, and spinach were planted alongside bok choy, Chinese cabbage, kohlrabi, and collards, offering a variety of greens for fall meals. They added finishing touches to the boarders of the garden with a variety of fall-blooming crocuses and chrysanthemums that would bloom before winter set in.

With plenty of planning time to brainstorm and refine aspects of the garden before it went into the ground, the Groundwork gardeners developed a number of specific ideas that made the garden fit into the neighborhood and their needs. Despite the concerns

[51] Rebecca Severson, "Groundwork a Special Community Garden," *Green Connection*, Summer, 1987, Folder: Portfolio—Green Chicago, RS.
[52] Severson, "Groundwork a Special Community Garden."
[53] Rebecca Severson, "Chicago Botanic Garden Helps Ease Nationwide Garden Crunch," *Garden Talk* (September 1983), Folder: Portfolio-Hist. Green Chicago, RS.
[54] "Urban Horticulture Department, 1987 Progress Report," 1987, Folder 5: Urban Horticulture Programs 1987-1993, Box 1014, CHS.

other gardeners had shared about stolen produce, the Groundwork garden had no fence. Like the homes on either side of it, it had a front lawn, and its gardens were set back twenty-five feet from the sidewalk. In the back, they left an area unplanted and added tree stumps to create a sitting area for community meetings, especially the monthly meetings of the garden committee.[55] Using the produce from a communal vegetable plot, they offered free produce to passers-by in an attempt to have them leave gardeners' unprotected plots alone. On it, they hung a sign reading, "We each work hard in a small space. We offer you here what we can share. If you would like to garden with us next year call…"[56]

Each year, it seemed, the gardeners thought of something new to add. By the 1985 season, they had added a communal herb garden, a soup kitchen plot (worked by kitchen employees and volunteers) to feed their neighbors in need, and a garden specifically for young people.[57] In 1986, the community plots were expanded to include strawberries and raspberries and rhubarb, and bylaws and a board structure were adopted, led by steering members who each focused on an area of responsibility: Tools and Equipment, Communication and Special Events, Programs and Meetings, and Property Management. These bylaws specified a ten-dollar fee for one of sixteen spots in the garden, with the understanding that the assigned renter had to start working the ground before June first or the plot would be given to someone waiting in the wings.

[55] Rothert et al., "Urban Horticulture: It Makes a Difference."
[56] Severson, "Organizing for Vandal-Resistant Community Gardens."
[57] "Tiptoe through the Turnips," *Green Connection,* Summer 1985, Folder 4: Urban Horticulture Department Files, Newsletter, Box 1014, CHS.

This was, however, not the first year that the garden had been well-organized. In 1985, local leaders had charged fifteen dollars per plot, a sum they put toward renting a rototiller and buying compost, a horse cart, and sign paint that were needed by all.[58] Like most other gardens, they planned a few weekends for everyone to work together on these tasks that needed to be accomplished in the garden for the benefit of all, but they also had their own system to make sure that everyone would be looped into the plan for the garden. Every year, the first garden meeting happened on April 13, rain, snow, or shine. If the weather was good and the soil dry, rototilling could begin. If not, a gardening lesson would ensue to get everyone in the spring spirit.[59]

In the fall, Tina Hirsch, a Groundwork coordinator, would plan a harvest dinner. Slides will be shown of the garden in different stages and of the gardeners working. The first year there was an awards presentation, so everyone got a little certificate for their special contribution to the garden. Some of them were funny awards like the "Keep on Truckin' Award" for volunteers who hauled compost.[60] In the winter, gardeners would throw a party to browse seed catalogs, plan gardens, and order seeds together. These regular meetings throughout the year helped the group cohere in the neighborhood which particularly important because the garden members did not all live near each other or the garden and might not otherwise have regular contact.

The result was a tight-knit group that made the neighborhood more livable. One gardener explained it this way, "I came from India. First to Ohio, now to Chicago. This

[58] Rebecca Severson, "City Harvest," *The Neighborhood Works* 7, no. 10, October 1984, Folder: Portfolio—Green Chicago, CHS.
[59] Severson, "Organizing a Community Garden."
[60] Severson, "City Harvest."

is my first garden. I brought seeds and transplants. It felt good. I've made friends with the other gardeners [and] for the first time I have a feeling of not wanting to leave. My roots are here. Mine and my tomatoes."[61] Through a shared interest in plants, one that was important enough for her to bring transplants from India, this neighbor was able to become part of a community. Gardening was her vehicle to feeling at home in a new country and a new neighborhood.

Groundwork also became a means for members to connect with gardeners across Chicago and beyond and to take advantage of resources for community gardeners. Multiple members attended the city-wide community gardening conference each year, building relationships with gardeners across the city, whom they helped in times of need. Nearly every year the Groundwork garden entered the Chicago Botanic Garden's community garden contest and won an award. In 1984, 1985, and 1992 they won first prize, taking home an award of $250 that could be spent on needs in the garden. When they received an honorable mention in the first national American Community Garden Contest in 1984, sponsored by GLAD, they took home $100 more. The money was important. Laura Negronida, a Groundwork gardener, suggested ways they might spend it, "If there's a way to use the money so we can get the land for long term use, that's what I'd like to see. In terms of things that we need—a rototiller and a heavy-duty hose cart would be great."[62]

That year they were particularly concerned about the longevity of their tenure in the garden. Despite having a formal lease from year to year, the owner was looking to

[61] Rothert et al. "Urban Horticulture: It Makes a Difference."
[62] Rebecca Severson, "Cream of the Crop" *Heartland Journal*, Early Winter 1984, Folder: Portfolio—Green Chicago, RS.

sell.[63] In 1984, the gardeners succeeded in saving their garden and maintained their lease despite the fact that the land was sold. As the neighborhood gentrified, they lost their space to condominium development in 2004.

For Food or For Beauty: Funding Community Work

While the community groups that Green Chicago and GROW worked with received numerous benefits from working with the garden, CBG and their funders did not always share the same goals as community gardeners. CBG's community horticulturalists worked at the interface of these two competing interests to maintain strong and responsive relationships in the community while simultaneously appealing to ongoing funding opportunities. Funding was essential, but program success was dependent on making the program relevant to gardens, rather than imposing a CBG-led model on their local projects.

The largest source of direct funding for community horticulture programs at CBG was private grants from philanthropic organizations in Chicago.[64] While CBG did successfully apply to the USDA for funding and looked for some grant opportunities, it was most successful and therefore most interested in applying to granting organizations with local interests in the Chicago area. The Chicago Community Trust was its most consistent supporter. Another main source of support for urban horticulture projects were grants from companies with a national presence but a headquarters located in Chicago,

[63] Severson, "Cream of the Crop."
[64] A number of urban horticulture projects have been funded by USDA grants but only since the year 2000. While these have been substantial in size, they are a small proportion of the total number of grants received by CBG. "USDA Award Letter," September 21, 2000, Folder 1: 1999 School Gardening Initiative Grant, Box 32B, CHS.

including Dr. Scholl, Kraft, and Motorola. It was private foundations that provided the direct underwriting to start the urban horticulture department and that shaped its development over two decades.

While community horticulture programs may have been compelling for those who controlled the governmental contribution to CBG's general operating budget, the proximate generating force of community horticulture programs at CBG was the receipt of a number of large grants in late 1981 and early 1982. Despite having the idea for the Plantmobile in 1976, the idea only became a reality in 1982 after the garden received funding from the Dr. Scholl Foundation to develop the program and hire staff members, citing their commitment "to improving the world."[65] The Joyce Foundation provided the start-up funding for the Chicago Green program and was engaged more specifically in civic concerns like healthy communities and quality of life and thus was drawn to CBG's community garden and neighborhood beautification projects. The ultimate goals of this project were ambitious and multi–faceted: "revitalizing neighborhoods, stimulating social interaction, providing nutritious food, promoting garden skills, encouraging self-reliance, conserving resources, reducing family food budgets, [and] creating opportunities for recreation and exercise."[66] Then, in the late 1980s, Plantmobile, as it was conceived, was a casualty of shifting funding priorities.[67] With no funding for its community lectures, the program was converted to GROW, with a more active role in the physical process of greening neighborhoods.

[65] "Proposal III: A Mobile Classroom," 1976, Folder 5: Urban Horticulture Programs 1987-1993, Box 1014, CHS. Rothert, "The Greening of Chicago."
[66] Rothert, "The Greening of Chicago."
[67] Zenor Oral History, 8.

While Severson had broad ambitions for the local gardens, for Green Chicago's funders (and therefore CBG administrators), food was a primary priority and one that was relatively straight-forward to quantify. The Kraft Foods Foundation, which began to fund the program in 1986, explicitly identified food as a justification for its support. "Neighbors can work together to help meet their families' food needs," Stevelyn Buenger, their community affairs manager, said that year.[68] Citing UDSA figures, Buenger placed the stamp of approval on a project that counted $50,000 worth of food as a measured outcome, a fantastic return on an $8,000 investment that allowed the CBG program to be temporarily expanded to ten gardens.[69]

For Groundwork and other gardens, the production of food was a priority but also a concern. Often located in the most impoverished neighborhoods, Severson's gardeners grew food they could neither find in their neighborhood nor afford. A side effect of this effort was a constant worry about produce theft by neighbors—those interested in eating the food as well as those interested in using tomatoes as messy water balloons. One way they combatted this was by maintaining a community plot, explicitly for the purpose of feeding the community beyond the gardeners. Neighbors could take produce from this garden without upsetting the balance of the garden. Severson and her team also got creative about selecting cultivars for their gardens that would deter theft. As Jamie Douglass, a later staff member, remembered, she worked with the breeders in the nursery trade (not at the botanic garden) to develop or find a variety of tomatoes that would help

[68] "Botanic Gardens Yield Crops Aplenty," *Chicago Defender*, October 23, 1986, Folder: Portfolio-Hist. Green Chicago, RS.
[69] "Botanic Gardens Yield Crops Aplenty."

preserve themselves from theft.[70] The result of their searching was a "hideous" heirloom variety called Black Prince. While the taste of the tomatoes was excellent, their black-green shoulders made them look almost rotten and certainly unappetizing for thieves.[71]

Not all garden groups grew food in their gardens, however. At the Garden of Paradise, beautification was more of a priority. While the northern third of the garden was set aside for gardeners who might not have space in their own yards to cultivate produce, "a majority of those attending said they had back yards for vegetables and argued that flowers would be more beautiful."[72] Instead, residents created verdant sitting areas flanked by rose bushes and paths shaded by fruit trees—ideas that they felt better suited to the high-visibility of the corner lot. The number of groups requesting landscaped community park space in their application to the Green Chicago program rather than strict vegetable gardens increased over the first few years of the garden, reaching forty-six percent of requests in 1986.[73]

Those who judged Green Chicago's annual community garden competition were similarly counseled to value both fruit and vegetable gardens. Administered by Meegan McCarthy in the plant information program, the annual competition pulled in guest experts, like Charles Lewis, to judge the contest. While community involvement and crops played a role in the selection of award-winners, "What separated New Dawn [the first-place winner] from the other community gardens was the common areas where

[70] Jamie Douglass, interviewed by Reba Luiken, August 30, 2018, 3-4.
[71] Douglass Oral History, 3-4.
[72] Severson, "Local Garden Helps Pilsen Bloom."
[73] Chicago Horticultural Society, *Annual Report 1986*, 22.

flowers thrive and a shrub border has been started."[74] The deciding factor was not about food at all. When CBG director Roy Taylor presented the award on-site, he also handed members of New Dawn Community Garden the $300 prize for garden improvement, a significant sum considering it was equivalent to Green Chicago's standing $300 to $400 supply budget for seeding new gardens.[75]

Roy Taylor, Gene Rothert, and others in CBG's administration shifted between two primary goals with regard to the Green Chicago program. At times, like during the community gardening contest, they shared the goals of the horticulturalists on the ground—to enable gardeners to create the garden paradise of their dreams. Most often, however, their focus was on providing funding for the Green Chicago program and leveraging the reputation of their community horticulture programs to fund CBG overall. Due to its founding legislation and association with the Forest Preserves of Cook County, the CBG has continued to receive a disproportionate amount of county funding as compared to botanical gardens nationwide.[76] While this funding must be dedicated exclusively to maintenance of the grounds of the botanical garden proper rather than being used for capital projects or programs like community gardens, the funding amounts to one third or more of the garden's annual revenue and has enabled the garden to pursue horticultural excellence without needing to finance this portion of its budget through sales

[74] William Aldrich, "Growing for the Sport of It," *Chicago Tribune*, September 14, 1986, Folder: Portfolio-Hist. Green Chicago, RS.
[75] Barbara Sullivan, "A Groundwork of Help is Available for Would-be Gardener," *Chicago Tribune,* August 13, 1987, Folder: Portfolio-Hist. Green Chicago, RS.
[76] See Introduction page 11, note 24.

or fundraising.[77] At the same time, this funding source has repercussions, such as mandating that CBG cannot charge its visitors admission.[78]

Another major funding source for CBG is its largest-in-the-nation membership. Despite numbering only 132 members in 1956, most of whom were board members, the establishment of the botanic garden began a ballooning of member support that ultimately developed the largest membership of any public garden in the nation. In 1976, the garden had 2,650 members. By 1984, there were 8,000, two-thirds of whom had joined in the previous two years. In 1994, the membership had swelled to 23,000. In 1998, the garden had earned the title of being the botanical garden with the largest membership in the nation, with 37,000—a title they have retained every year since. As in most membership programs, perks like free parking, special publications, discounted course registration, special events, and gift items certainly play a large role in member attraction and retention. However, membership and membership renewal materials make it clear that using horticulture to help others is an important aspect of CBG membership.

Beyond membership and tax support, grant funding was the other main source of funding for urban horticulture programs, and applications for these funds suggest

[77] Locally, for example, there was some public outcry about the Chicago Botanic Garden's ability to fund the construction of a mile and a half long wall along the highway at its western edge. While the state provided matching funds for anyone along the road who wanted to build a sound-mitigating wall, CBG was one of the few landholders to be able to afford the other half of the cost, due to its sales tax support. However, CBG also made a long-term commitment to maintain horticultural plantings along the wall, significantly increasing the number of man-hours in the horticulture department. Douglas Holt, "Edens Wall Can't Muffle Gripes from Other Towns," *Chicago Tribune*, June 17, 2004.

[78] CBG does, however, charge a premium for parking. Members do not have to pay this fee and have special parking permits allowing them access to the garden through an express lane, both of which encourage membership to the garden.

multiple factors shaped emerging programs and caused their reformation. While their urban horticulture programs could have been readily considered as environmental, staff members did not apply for grants that focused on these attributes (or potential attributes) of the program. As historians have noted elsewhere, the work urban horticulture staff were doing in urban environments, such as cleaning up garbage-strewn vacant lots, remediating soil, and planting air purifying and water holding plants was unquestionably improving the environment.[79] The grants they focused on and the language they used to talk about these programs in internal publications, however, did not use explicit environmental language until the mid-1990s. And yet, when the Green Chicago program received a one-time donation from the city for $80,000 in 1993, it came from the Department of Environment.[80]

Reasons for this grant were multiple. First, the rest of CBG was shifting toward a more environmental direction. In 1982, they began a prairie project on the grounds that would develop over the next decade, becoming a showpiece of conservation in 1993.[81] In this and other projects, such as a collaborative one around the Chicago River in 1991, CBG built up the expertise and scientific staff that inspired the Cook County Forest Preserves to turn over management of eighty-five acres of adjacent woodland to garden

[79] David Stradling and Richard Stradling, *Where the River Burned: Carl Stokes and the Struggle to Save Cleveland* (Ithaca, NY: Cornell University Press, 2015). Andrew Hurley, *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980* (Chapel Hill: University of North Carolina Press, 1995). Robert R. Gioielli, *Environmental Activism and the Urban Crisis: Baltimore, St. Louis, Chicago* (Philadelphia, PA: Temple University Press, 2014).
[80] Chicago Horticultural Society, *Annual Report 1993*, 6.
[81] Chicago Horticultural Society, *Annual Report 1982*, 3. Chicago Horticultural Society, *Annual Report 1993*, 2.

management.[82] Most indicative of a shift was a revision of CBG's mission statement in 1988, which introduced language about "conservation of natural resources," and "research programs of excellence."[83] Even among urban horticulture programs, the suburban-focused EEAP program was being developed and funded specifically as an environmental program. Interviews with past staff members indicated that while they did not write about environmentalism in their brochures, their projects were framed by a perspective of environmental action. In this case, they were aware of their environmental impacts, but they did not publicize them. Other scholars suggest that this was related to the priorities of their partnering communities.[84] In these impoverished neighborhoods, environmentalism was often seen as a luxury for the wealthy. Their more pressing issues, while ultimately environmental in nature, were not conceptualized that way. To avoid alienating their partners, either consciously or subconsciously, CBG staff chose to emphasize social, therapeutic aspects of their programs in theory, practice, and grant applications. So while the need for ongoing grant funding influenced community horticulture programming at CBG, staff exercised independent decision-making as they chose which grants to pursue and which to ignore or delay indefinitely.

The way the Green Chicago program was funded was a major influence on the program's development, but Rebecca Severson and her successors were far more focused on building communities than about maintaining stable budgets. This is not to say that

[82] Chicago Horticultural Society, *Annual Report 1991*, 6. Chicago Horticultural Society, *Annual Report 1994*, 2.
[83] Chicago Horticultural Society, *Annual Report 1988*, 6.
[84] Stradling and Stradling, *Where the River Burned: Carl Stokes and the Struggle to Save Cleveland*. Hurley, *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana*. Gioielli, *Environmental Activism and the Urban Crisis*.

they were unconcerned or irresponsible with finances. Staff from across the urban horticulture department worked to maintain the garden's reputation through membership in the National Public Gardens Association and National Community Gardening Association and supplied necessary information for grant applications and reports on a regular basis. However, Severson, Zenor, and others had a critically different point of view than did Rothert.

Both of these perspectives influenced the development of Green Chicago's intervention model. In his work in horticultural therapy and the urban horticulture program more generally, Rothert was focused on project sustainability. He chose to work with nursing homes because they had more stable populations than other institutions. He invested time into nursing homes that provided financial support upfront and demonstrated a longer-term commitment to continuing a horticultural therapy program after CBG's horticultural therapists moved on to other projects. In a parallel way, gardeners had to reach out to the Chicago Botanic Garden and ask for help. There, too, a few gardens were chosen from these applicants based on apparent community cohesiveness and their chance of success. This seems like good business sense. Why would you invest time and money into a project that is unlikely to be successful?

Rothert also steered both programs toward diversity—racial, ethnic, religious, and geographic. As he selected sites for his horticultural therapy programs, he made sure to choose homes that were secular, Christian, Jewish and predominantly black. In the same way, he pushed the Green Chicago program to choose sites from across the city of Chicago and not beyond its borders. In both cases, these moves made the programs more appealing to funders by meeting the need of diverse groups of people across social

categories, but in the city itself that, in effect, ensured social diversity because of it segregated neighborhoods.

Rothert imported his model-based system of program proliferation from the horticultural therapy program to other urban horticultural projects, designing them on a reproducible pattern. Severson's Green Chicago program was standardized into a cyclical process that inaugurated three or four gardens each year and brought them through a three-year cycle toward sustainability that would be replicated in following years. The Plantmobile distributed information sheets at public events and provided a set number of lectures that were pre-prepared and could be chosen by potential audiences from a list to increase efficiency through replication. Under Zenor, the GROW program was expected to focus on things that had been proven successful elsewhere—like tree planting on Arbor Day, rather than creating new community-based programs.[85]

Severson supported the goal of replication even as she encouraged growing independence within her programs. Ultimately, the goal was garden projects that would subsist without CBG support or intervention. Severson encouraged and accept the assertion of collective power in the planning and execution stages. At the Garden of Eden (El Paraiso) in Pilsen, for example, gardeners continued to make autonomous decisions about the space by selling off existing shrubs to buy rose bushes, even after they had partnered with the Green Chicago program.[86] Severson encouraged this independence and low-cost thinking as a means to self-sufficiency, suggesting bartering for plants and donations as helpful techniques.

[85] Zenor Oral History, 17.
[86] Severson, "Local Garden Helps Pilsen Bloom."

A Garden Community across Neighborhoods

However, Severson's Green Chicago program was much more directly influenced by staff and protocols she had learned in her previous position in Illinois Extension's urban gardening program than her colleagues at CBG. Severson planned the Chicago Community Gardening Conference with the help of Extension, contacted the gardeners on their mailing lists, and referred garden groups to them when they needed help securing free liability insurance to protect the owners of the vacant lots they worked on. So, while Severson did have staff support at the botanic garden from the Plantmobile, Plant Information, and two dedicated laborers who facilitated the heavy lifting of garden preparation, her primary programmatic connections were outside the botanic garden. She visited CBG only a few days a week during peak season.

Severson's community gardening conference, begun in the spring of 1982, was also an application of her previous canvasing and related political organizing.[87] The goals of the Chicago Community Gardening Conference were explicitly political. Severson aimed to link gardeners throughout the city together such that they could develop a collective voice to lobby for such common interests as an elimination of the property taxes charged on permanent community gardens.[88] She did this by getting community gardeners from across the city in the same room through posters hung at

[87] Severson Oral History, 23. Rebecca Severson, "Urban Horticulture for Chicago's Neighborhoods," *Gardens Magazine* (March/April 1984), Folder 1: Urban Horticulture Department Files, Articles, 1974-1997, Box 1014, CHS.
[88] Rebecca Severson, "Sponsoring a City-Wide Conference for Community Gardeners," *Journal of Community Gardening* 3, no. 2 (Summer 1984), Folder: Portfolio-Hist. Green Chicago, RS.

community gardens, co-ops, and garden centers; invitations mailed to individual gardeners; news releases submitted to local papers; and in-person invitations. In October 1982, this concerted effort brought sixty-nine community gardeners from six community gardens together at the Cooperative Extension space in Chicago, where they attended a half-day event with workshops, heard a keynote speech from Charles Lewis, and watched a curated slideshow of exemplary community gardens.

Having learned that gardeners were much happier to attend a conference in the off-season when talking about gardens did not interfere with being in them, the conference was reprised in March of 1984 before being repeated annually. In 1984, it was held at the Lincoln Park Zoo, which was in a "safer neighborhood" and available for free. Expanded to a whole day, the conference was held in partnership with the American Community Gardens Association, and its president served as the keynote speaker.[89] Complemented with a panel of experienced garden coordinators, this second conference drew gardeners from sixteen community gardens, half of the thirty-two known gardens in the city.

While the community garden conference did offer practical tips about how to run a garden and grow healthy plants, its two primary foci were building communities and inspiring gardeners. The conference opened with introductions during which the one hundred thirty-one attendees stood to introduce themselves to each other one-by-one, meeting like-minded gardeners from across the city.[90] The workshops that followed served to both empower and build connections among gardeners. Experienced

[89] Severson, "Sponsoring a City-Wide Conference for Community Gardeners."
[90] Rebecca Severson "Chicago: Conference Networking," Folder: Portfolio-Hist. Green Chicago, RS.

community gardeners offered advice on panels and in roundtable discussions which decentered Severson and enabled inter-garden connections to form and facilitated conversations about garden problem-solving. Thus, community gardeners demonstrated a wealth of technical expertise in individual workshops as they talked about horticulture, landscape design, herbs, garden writing, law, and wildflowers. As the conference closed in 1985, organizers facilitated a communal experience of solidarity as they broke into the Woodie Guthrie classic, "This Land is Your Land," a doubly appropriate tune for the many immigrant gardeners in attendance.

Severson and others at CBG believed gardens to be "an effective vehicle for organizing."[91] In the *Urban Horticulture Newsletter*, they promoted a federation of community gardens in Chicago, under the leadership of Jim Jensen and Frank Portner, two community gardeners who became excited about the idea at the Community Gardening Conference in 1986.[92] They hoped to follow the example of groups in Boston, San Francisco, Cincinnati, and Milwaukee (and notably not New York) who had come before them.[93] The stated goal of this nascent (and never official instituted) group was to lobby for permanent sites for gardens. And while this specific initiative failed, Severson had successfully developed a city-wide base of community gardeners who knew each other through the conferences and who had begun to work together to preserve

[91] Severson, "Organizing a Community Garden."
[92] Rebecca Severson, "Federation of Community Gardens," *Urban Horticulture Newsletter*, Summer 1986, 5, Folder: Portfolio-Hist. Green Chicago, RS.
[93] The Boston Urban Gardeners (BUG) group, for example, began in 1976 as a grassroots organization dedicated to developing and improving community gardens in the city. Carol Stocker, "Harvest of Time Boston Urban Gardeners Turns 20 Amid Struggles to Keep Community Gardening Alive," *Boston Globe*, July 25, 1996.

community gardening in their neighborhoods.[94] After failing to secure permission to use a vacant lot on his own block, one gardener became the manager of another new garden, further from home, that he had learned about at the conference. That summer, after Green Expectations garden was stuck by vandalism, gardeners at Groundwork, eight miles distant, shared their bounty of tomatoes. When one garden lost their site due to a change in ownership, their misfortune became a blessing for a fledgling garden to which they donated their fencing and tools. Self-sufficiency would be facilitated through the network.

Another aspect of this network was the urban horticulture department's quarterly newsletter, begun in 1985 under the name *Green Connection*. Its primary audience was gardeners in Chicago, and more specifically, alumni of its Green Chicago and horticultural therapy programs. It included news about its programs, upcoming events, and gardening tips, and its editors, Severson, Nancy Clifton, and others in the department, welcomed community participation: "Your input is encouraged to insure its usefulness. This newsletter can be a way to tell others of your gardening successes or problems in addition to sharing ideas and innovations…If information on a particular topic or problem is not found in this issue and forthcoming issues…please feel free to contact [us] directly."[95] Primarily, however, articles were authored by garden staff.

From 1985 until 1996, when the publication of *Green Connection* ceased, as did the GROW and Green Chicago programs, the newsletter shared program successes and news directly from CBG. New employees were featured with welcome articles, as were

[94] Severson, "Chicago: Conference Networking."
[95] "Urban Horticulture Department," *Green Connection*, Spring 1985, Folder 4: Urban Horticulture Department Files, Newsletter, "Green Connection," 1985, Box 1014, CHS.

the annually selected nursing homes that would host horticultural therapy contracts and community gardens to be supported by Green Chicago. The newsletter announced upcoming training programs, deadlines for the Planting with Pride contest, and winners from both the horticultural therapy and community garden categories. *Green Connection* united all of the local groups under the urban horticulture umbrella, even those who had not been direct project partners in the past, by providing regular communication. By 1990, the newsletter was mailed to 1,300 individuals, including all known community gardens in Chicago, Chicago community organizations, ward aldermen, Chicago Botanic Garden board members, and Cook County commissioners.[96] It was community building and publicity for a secondary audience of political and financial supporters.

Green Connection, GROW, and Green Chicago all outlasted Rebecca Severson's and Cliff Zenor's time at the garden. When Severson left in 1988 to become a program and volunteer manager at Friends of the Parks in Chicago, no one was immediately hired to fill her job, and Zenor struggled to do the jobs Severson and Clifton had both vacated until Elizabeth Taylor was hired in 1990.[97] After Zenor left in 1991, Paul Pfeifer took over the GROW program and stayed until 1996, when he left to become a horticulturalist at the Cleveland Botanical Garden.[98] Jamie Douglass and Rebecca McPherson were both hired in 1995 to manage Green Chicago gardens—Douglass shepherded existing gardens

[96] "Reaching into the City: The Chicago Botanic Gardens' Urban Horticulture Programs."
[97] "Sun-Times Charity Trust Grant Application," April 26, 1995, Folder 7: Collaborations/Green Chicago/A Community Gardening Program, 1995-97, Box 16C, CHS.
[98] "Good-Bye, CBG…" *Green Connection*, June/July 1996, Folder 8: Urban Horticulture Department Files, Newsletter, "Green Connection," 1994-1996, Box 1014, CHS.

while McPherson started up to eight new gardens each year between 1995 and 1997. None of them had worked previously at botanic gardens.

Tyler had more experience working in community horticulture than the rest of her contemporary colleagues combined, and she used this experience to continually refine the Green Chicago program. As the coordinator of educational programs at Philadelphia Green, Tyler had developed a national network and reputation on the community gardening scene as a staff member at one of the nation's leading programs and a board member of the American Community Gardening Association.[99] At Philadelphia Green, she managed workshops for community gardeners and school children on horticultural topics ranging from making terrariums to pest identification in addition.[100] At CBG, her role was more narrow, but she continued to emphasize the important role of ongoing relationships with gardeners and the benefit of gardens for communities.[101]

Through staff transitions, Green Chicago had developed a shared definition of a community garden. Zenor believed that a community garden was one that was run by the community.[102] Severson agreed, writing, "In the gardener-managed community garden, one or more neighborhood agencies or technical assistance groups may be involved, but the gardeners are organized to make decisions and to do the work. They choose a name for themselves and/or the garden. They make a garden sign and they make the rules."[103] Tyler maintained that autonomy was an essential faced of community garden

[99] Elizabeth Tyler, "Growing Up," *Journal of Community Gardening* 5, no. 3 (Fall 1986): 1.
[100] "Philadelphia Green Needs Your Help," *PHS News* 28, no. 10 (November 1987): 1.
[101] Charles Kouri, "Tilling for Tomorrow: Garden Program Sows Hope in City's Vacant Lots," *Chicago Tribune*, August 9, 1991.
[102] Zenor Oral History, 32.
[103] Severson "Organizing a Community Garden."

development.[104] This was explicitly different than a garden managed by an overarching organization where one might pay to rent a plot and otherwise never interact with the gardener in the next plot. A community garden was a garden to build community. These were the gardens CBG, Green Chicago, and its staff intended to build.

This definition of a community garden was embedded in a larger program philosophy that focused more on healing communities than on creating beautiful gardens. One of Zenor's projects at a Catholic church-turned-women's shelter, exemplifies this end-goal. In 1988, St. Carthage Catholic Church in the Englewood neighborhood of Chicago became a building rather than a parish as its one hundred regular mass attendees combined with a neighboring church, St. Bernard's.[105] The building was sold to Sr. Margaret Traxler's Institute of Women Today to be turned into a battered women's shelter. Chicago Botanic Garden's outreach programs were called in to provide "a place where people, you know, the mothers and with their kids from this shelter can go out and just relax…someplace pretty, someplace nice."[106] It was imagined to be a "serene place in a tougher neighborhood" and to improve the lives of the women and children who made the Maria Shelter a home. More generally, the end goal was to create spaces that helped to build the social fabric of a community.

Relational Shifts and Programmatic Developments

[104] Kouri, "Tilling for Tomorrow."
[105] Hugh Dellios, "Shrinking Church Feels Squeeze," *Chicago Tribune*, February 19, 1988.
[106] Zenor Oral History, 18.

Changes in Chicago and among staff at the Chicago Botanic Garden began a subtle shift that changed the relationship between the botanic garden and community gardeners in the mid-1990s. In particular, relationships that had previously been short-term investments on the part of the garden were revived. In 1995, a staff member was hired to reinforce and maintain CBG's relationship with these gardens on an ongoing basis. Jamie Douglass helped to revitalize older Green Chicago gardens, becoming the first member of the urban horticulture department to actively contact community gardens to investigate whether they needed help. Severson had scheduled visits to gardens monthly in their second season and a few times in their third; however her primary role was facilitating community ownership and supporting community members' visions for the garden. Douglass' involvement was a notable shift because she was focused on more intensively rebuilding garden groups and developing their connections to other local organizations.

Up until this point, the Green Chicago program and its parallel programs in the urban horticulture department had been reactive rather than proactive programs. People who wanted help with garden projects in their nursing homes, vacant lots, and marginal lands contacted the garden for help. According to Zenor, "there were so many good community gardens around we didn't have to go and say, 'Hey, your community could use one.'" They also did not go out of their way to check on gardens CBG had helped to start beyond a few years.[107] A community group needed to ask for help to be noticed beyond this point. This was part of the ethos of the program. No one from the urban

[107] Zenor Oral History, 10-11.

horticulture department was going into neighborhoods to tell people that they needed to have gardens or that they needed to have certain kinds of green spaces.[108]

With Jaimie Douglass' arrival, this changed. Douglass came to the Chicago Botanic Garden as an intern beginning her second career after having worked in investment banking for decades, and she quickly transitioned into a full-time position as the liaison to older Green Chicago gardens in 1995. Douglass' role was to help revive and revitalize community gardens that had gone fallow or were managed by an unsustainably small number of gardeners. And yet, during the same year, CBG staff reported that thirty-three of the thirty-seven community gardens they had founded continued to thrive, and "No Green Chicago garden has ever been vandalized, telling evidence that the projects are embraced by the entire community."[109] If that was true, why did they need a special staff person to improve them?

The simplest answer to this contradiction is that staff's claims in their grant application to the Sun-Times Charity Trust were wrong. Vandalism, defined by Severson and community gardeners as the stealing of produce, did happen. For example, the Green Expectations garden was vandalized in 1985 and more seriously in 1986, with its produce needing to be replaced by the generosity of Groundwork gardeners.[110] Concerned about the ongoing threat, they decided no one in the garden should grow tomatoes because they

[108] This was notably different from the way the CORE program functioned because it did actively search for partners and market the program in the Chicago Public Schools. But again, this was the role of administrators not employees who implemented the project in the classrooms. See chapter four for more on this topic.
[109] "Sun-Times Charity Trust Grant Application."
[110] Severson, "Chicago: Conference Networking."

were too tempting.[111] Relatedly, the gardeners pestered Douglass to find a solution to the problem of stolen (and then thrown) tomatoes.[112] Locals noted that vandalism and theft were a problem at nearly all gardens in Chicago, and good humor was necessary to continue with the community project.[113] Though they did not report on specific occasions of vandalism, Severson and Douglass paid repeated attention to how to combat the problem, suggesting it was an ongoing problem.[114] Perhaps the grant writer was defining vandalism as some more drastic garden destruction of which the need to replace plants at Green Expectations is the only evidence, but there certainly were small acts of garden theft and damage on a regular basis.

In 1995, Jamie Douglass visited fifty-five gardens that had been founded by Green Chicago between 1983 and 1994. Eleven of them no longer existed in any form, being replaced by vacant lots or other buildings—clearly not a one hundred percent success rate.[115] Nine more were in poor repair and unlikely to survive without additional support from the botanic garden through garden maintenance or help forming community partnerships. Four of the five school gardens started through the Green Chicago program up to this point were among the struggling or absent gardens, including the Johnson School garden, begun in 1993 but already completely unidentifiable on the landscape.

[111] William Aldrich, "Success by the Square Foot: Organization the Key to Lighter Workload," *Chicago Tribune,* August 24, 1986.
[112] Douglass Oral History, 3-4.
[113] Patrick Barry, "Friendship, Pride Grow in Community Gardens," *Chicago Sun Times,* September 20, 1985.
[114] Severson, "Organizing for Vandal-Resistant Community Gardens." Severson, "Plant Now for Fall Harvest." "Plant Doctor's Exchange," *Green Connection,* Summer 1985, Folder 4: Urban Horticulture Department Files, Newsletter, Box 1014, CHS. In this case, CBG staff were responding directly to a concern submitted by a community gardener.
[115] Jamie Douglass, "Green Chicago Site Survey," May 5, 1995, JD.

While CBG garden hired Douglass to find out and improve the status of these past gardens in 1995, by the time they wrote their grant that spring, they clearly knew there was enough of a problem to pay a staff member to investigate.

New grant funding enabled the creation of a position to investigate and partner with these older gardens, but there were also concurrent political changes in Chicago that made improving the program's perceived effectiveness an important goal. When Richard M. Daley became mayor of Chicago in 1989, he initiated a campaign to make Chicago "the Greenest City in America" beginning with a street tree campaign that would add half a million trees to the city.[116] In part, this greening campaign was a response to Chicago's industrial decline, but the environment was also a personal project of one of the most powerful mayors in United States history, perhaps even more powerful than his father, something he demonstrated iconically with the destruction of Megis Field in 2003 to make way for a park in downtown Chicago.[117] In 1993, the city undertook a more comprehensive five-year planning project with the support of a grant from the Chicago Community Trust, called CitySpace. Its mandate was to investigate the distribution and availability of open space throughout Chicago and to provide suggestions for improvements in a report released in January 1998. Realizing that Chicago ranked eighteenth out of twenty major American cities for the amount of park space available per capita in 1990 census data, CitySpace brought together the City of Chicago, the Chicago

[116] "Great News for City Squirrels," *Chicago Tribune*, November 27, 1989.
[117] Peter Gorrie, "Study in Contrasts Daley Walks the Tough Talk; as they Vie to Lay Claim to the 'Greenest' City, One Mayor Talks while the Other Acts," *Toronto Star*, April 28, 2007. Susan Saulny, "Chicago is Mayor Daley's Kind of Town," *New York Times*, September 12, 2010. Lisa Chamberlain, "Mayor Daley's Green Crusade," *Metropolis* (July 2004): 104.

Park District, the Forest Preserve District of Chicago, and later in 1996, the Chicago Public Schools to remedy that situation.[118] It was also intended to address the U.S. Justice Department's decision to sue the Chicago Park District for racial discrimination in 1982, claiming the city was not providing equal access to recreation resources.[119] Ultimately, the project set a goal of having two acres of public open space per 1,000 residents by 2010 and five acres by 2020, balanced among neighborhoods.[120] While Chicago had many large natural areas, the planning committee recognized sought to establish a park within ten minutes' walk of every home.

Community gardens were one way to increase available greenspace. While CitySpace planners realized that there were already many community gardens in Chicago, established with the help of the Chicago Botanic Garden and other organizations, they identified instability because these garden groups lacked ownership rights. During the CitySpace planning process, the City of Chicago, Chicago Park District, and the Forest Preserve District of Cook County collaborated to create a more permanent solution, creating a non-profit corporation, NeighborSpace, to hold the titles and thus protect these lots from development.[121] In this report, they suggested a number of recommended lots for initial inclusion in the NeighborSpace land trust, based on their ownership status. Of twenty-seven suggestions, ten were former Chicago Green Projects.[122] The City of Chicago, Chicago Park District, and Forest Preserve District of

[118] *CitySpace: An Open Space Plan for Chicago* (Chicago: City of Chicago, 1998), 18-19, accessed October 8, 2019, https://www.cityofchicago.org/city/en/depts/dcd/supp_info/cityspace_plan.html
[119] *CitySpace: An Open Space Plan for Chicago*, 21.
[120] *CitySpace: An Open Space Plan for Chicago*, 27.
[121] *CitySpace: An Open Space Plan for Chicago*, 44.
[122] *CitySpace: An Open Space Plan for Chicago*, 45.

Cook County each contributed $100,000 to create NeighborSpace as an independent non-profit urban land trust in Chicago.[123] Chicago Botanic Garden was also a major partner in the School Gardens Initiative, another outgrowth of this project, which is discussed in the next chapter.

Funding remained an important factor in the development of urban horticulture programs at the Chicago Botanic Garden. Over fifteen years, support for the Green Chicago program had become increasingly difficult, as funders were more interested in new initiatives than operating funds for ongoing programs. As a result, CBG turned toward individual donors as a source of revenue and hosted donor galas in 1996 and 1997. CBG's development staff were able to match individual donors with community garden projects of particular interest to them, a process much like the one at the New York Botanical Garden for the Bronx Green-Up program.[124] The effort to raise funds from a pool of over a hundred elite Chicagoans proved much more staff- and overhead-intensive than grant-writing.

Staff turnover also played a role in changing program priorities. Jamie Douglass left the garden in 1996 for personal reasons and moved on to similar community organizing-type work in Colorado. Paul Pfeifer left that year too, marking the end of the

[123] "About," NeighborSpace: Community-Managed Open Space, accessed October 7, 2019, http://neighbor-space.org/about/. Greg Rosenberg and Nate Ela, "Case Study: NeighborSpace," Land Tenure for Urban Farming: Toward a Scalable Model, accessed October 7, 2019, http://www.urbanagland.com/the-central-server-model/case-study-neighborspace/.
[124] "Packet of 1997 Green Chicago Sites," 1996, Folder 7: Collaborations/Green Chicago/A Community Gardening Program, 1995-97, Box 16C, CHS. "Bronx Green-Up Dinner Dance," 1997, Folder: 1997 BGU Letters, Bronx Green-Up Archive, New York Botanical Garden.

GROW program.[125] As these individuals left, others shifted to shore-up expertise in the area of school gardens. While many longtime community garden staff believed their work was more a mission than a job, they also experienced burn-out and changing personal priorities.[126]

Within Chicago in particular, crime also played a role in the decision to end both the GROW and Green Chicago programs. Throughout the 1980s and early 1990s, crime increased in Chicago neighborhoods, especially the more diverse and poorer ones that the urban horticulture department served most often. Between 1982 and 1991, violent crime in the city increased by almost eighty percent.[127] Homicides also increased by fifty percent and remained so through the end of the decade, though even after they were reduced to pre-1985 levels, Chicago neighborhoods were by no means "safe" as compared with the rest of the country.[128] Attributed to gang-related activity, violence was ongoing on the South and West sides of Chicago. The *Chicago Tribune* reported on the issue regularly, with such lowlights as "an almost average July weekend" in 1986 with nine dead, and a record-setting eighty-three homicides in June 1990.[129] CBG's

[125] "New Teacher Portraits," *Jordan Journal*, September 9, 1998.
[126] Zenor Oral History, 29. Laura J. Lawson, *City Bountiful: A Century of Community Gardening in America* (Berkeley and Los Angeles, University of California Press, 2005), 231.
[127] Chicago Police Department, *Annual Report 2010*. Chicago Police Department, *Annual Report 2011*. Chicago Police Department, *Annual Report 1996.* Chicago Police Department, *Annual Report 1982.* Chicago Police Department, *Annual Report 1983.* Chicago Police Department, *Annual Report 1984.* Chicago Police Department, *Annual Report 1985.* Chicago Police Department, *Annual Report 1986.*
[128] Ford Fessenden and Haeyoun Park, "Chicago's Murder Problem," *New York Times*, May 27, 2016.
[129] John Kass, "Summer Violence Heats Up With 9 Killings: It's Just Another July Weekend in Chicago," *Chicago Tribune*, July 14, 1986. William Recktenwald and Blake Morrison, "Guns, Gangs, Drugs Make a Deadly Mix," *Chicago Tribune*, July 1, 1990.

community horticulturalists experienced violence firsthand. More than once, Zenor was concerned about being mugged on a job site, and he received warnings from the police about working in neighborhoods where they would not get out of their vehicles. On one occasion, Zenor was robbed.[130]

Although the end of the Green Chicago and GROW programs marked a reduction in resources for community gardens in Chicago, there was some continuity through the new NeighborSpace initiative. This new program realized a number of goals Severson and Green Chicago had imagined for community gardens in Chicago. First, it offered them significantly more protection than one-year leases from the city. Now, NeighborSpace held the title to the land rather than the city, enabling gardeners to control (and prevent) its sale or use for other purposes. Second, community gardens across the city were linked together under a formal structure that united them toward a common cause of preserving community gardens across the city, including their own. Now, there was less expectation that the Chicago Botanic Garden and other extension programs needed to hold up a city-wide network.

The Howard Area Community Garden, run by Sr. Cecilia Fandel, OSM, was a Green Chicago community garden that benefitted from the protection provided by NeighborSpace.[131] The garden, started in a partnership between CBG and the Howard Area Community Center in 1986, occupied two lots on Juneway Terrace where buildings had recently been demolished. Previously, Ida Galvin and area residents had worked

[130] Zenor Oral History, 29.
[131] Sr. Cecilia Fandel is a member of the Servants of Mary also known as the Servite Order.

with Severson at the Triangle Garden across the street.[132] Now, the gardeners included twenty-four Asians, Caribbean immigrants, African immigrants, and more well established American black and white neighbors who worked individual plots.[133] After CBG helped establish the garden, Fandel saw CBG as a resource akin to local master gardeners in the University of Illinois Extension program who could be called upon to help with specific projects.[134] Despite the fact that CBG no longer had a formal program for community gardening after 1997, Fandel noted that they continued to send gardening help whenever she called.[135]

The gardeners purchased their land from the city in 1999 with the help of NeighborSpace, a local land trust that became a particularly powerful partner for the Howard Area Community Garden. When the nearby apartment buildings were turned into condominiums a few years later, the alderman sought to turn the community garden into a parking lot. The gardeners rejected his offer of space in Triangle Park (where the soil had not been improved by nearly two decades of gardening) and instead lobbied for their rights at community meetings. Fandel believed they were ultimately successful because NeighborSpace's land trust helped them retain their authority over the land itself.[136] NeighborSpace proved a valuable resource in a way that CBG could not and, in the process, created new kinds of alliances.

[132] Lillian Thomas, "Growing Concerns: Gardens in the City," *Chicago Reader*, July 27, 1984, Folder: Portfolio-Hist. Green Chicago, RS.
[133] Sister Cecilia Fandel, interviewed by Reba Luiken, June 28, 2018 in Ladysmith, Wisconsin, 12.
[134] Fandel Oral History, 13.
[135] Fandel Oral History, 12.
[136] Fandel Oral History, 15.

An Environmental Project with Therapeutic and Community Goals

Across the sixteen years that the Green Chicago and Plantmobile/GROW programs of the Chicago Botanic Garden brought the garden's resources to the people and neighborhoods of Chicago, the program changed as its reputation grew, its staff changed, and its financial resources fluctuated. Rebecca Severson build a community horticulture program from the ground up. Cliff Zenor carried Green Chicago as it limped along and transformed the Plantmobile program into GROW, a true community-based program. Under Betty Tyler, the Green Chicago program bloomed, adding two new staff members and an increasing number of initiated and maintained gardens. Between 1982 and 1997, the urban horticulture department continued to function so that it served both the community and CBG, creating some tension between the different goals of these groups (and their funders).

Staff members who worked with people in the neighborhoods of Chicago viewed their programs much the same with respect to the environmental movement and horticultural therapy until the last few years of the program. Severson saw the main goals of the program as food, beautification, environmental improvement, and helping the community—not as therapy exactly, but bringing a bright spot to communities stricken by poverty. When she spoke of environmental improvement she referenced concrete actions, referencing the positive role of living plants and the negative impact of garbage-filled lots.[137] The goals of the program involved plants, but more broadly, both Green

[137] Severson Oral History, 15. This is in contrast to an environmental movement that was very publicly focused on clean air, clean water, and preserving natural areas in the 1970s and 1980s. Stephen Bocking, *Ecologists and Environmental Politics: A History of Contemporary Ecology* (New Haven: Yale University Press, 1997), 7. Jeffrey Craig Sanders, *Seattle and the Roots of Urban Sustainability: Inventing Ecotopia* (Pittsburgh:

Chicago and GROW were intended to provide relief—of stress, hunger, and disjoined communities—in neighborhoods where people struggled with the violent and difficult realities of their daily lives.

Severson, Zenor, and others who worked in the programs considered themselves to be environmentalists. After college, as Severson became more politically active in the DeKalb area, environmental issues were an important aspect of this activism. She recalled using Prell shampoo because it was the last company to change its packaging from glass to plastic.[138] Later, when she moved to Chicago, environmental improvement led to one of her first Green Chicago projects planting trees and flowers on Arbor Day in East Rogers Park.[139] Zenor's interest in the environment made him a naturalist, and he loved spending time outdoors hiking and birdwatching.[140]

Residents of color were also concerned about their local environments. Responding to these concerns, researchers in Detroit illustrated the pressing importance of environmental issues to black residents in the 1990s.[141] While seventy percent of white residents saw pollution as one of the most pressing issues facing the country, this was true of seventy-seven percent of black residents. At the local level, more than twice as many black residents enumerated environmental issues like high noise levels, trash,

University of Pittsburgh Press, 2010), 51. Lindsay K. Campbell, *City of Forests, City of Farms: Sustainability Planning for New York City's Nature* (Ithaca, NY: Cornell University Press, 2017), 28.

[138] Severson Oral History, 2.

[139] Severson Oral History, 18.

[140] Zenor Oral History, 1.

[141] "Black Concern about Pollution, Environmental Quality Equals or Exceeds That of Whites, U-M Study Shows," *Chicago Weekend*, September 10, 1998. Paul Mohai and Bunyan Bryant, "Is There a 'Race' Effect on Concern for Environmental Quality?" *Public Opinion Quarterly* 62, no. 4 (February 1998): 475-505.

litter, roaches, and mice as very serious problems. In contrast, four times as many white residents saw global environmental issues like acid rain, ozone, and global warming as top environmental priorities. This discrepancy in the kinds of environmental issues that urban residents of different races related to highlights the importance of language and perspective. A definition of environmental activism centered on global concerns did not resonate with people of color in Chicago or Detroit but a focus on local issues was far more inclusive and relevant.

As a result, CBG staff quite pragmatically tailored their programming to neighborhood concerns, which were often directly related to their garden plots. According to Zenor, "they would want to know, how do I get these green worms off of my broccoli?" or how to improve their plants' health through companion plantings. While these concepts were connected to environmental concerns, nothing Severson or Zenor did at a garden was labeled "environmental education" and they did not deal with abstractions like "saving the planet" because residents did not relate to these ways of understanding their reality.[142] This was true in contexts across the country. As Robert Gottlieb has shown, activism by nonprofessional lower-middle-class and middle-class residents near Love Canal, New York similarly addressed environmental concerns but through a different lens, that of public health.[143]

[142] Severson Oral History, 25. The idea that science-associated professionals would choose their language carefully so as not to alienate people who distrust the scientific elite is not limited to botanic gardens or museums, as Peter J. Bowler noted in his work on the popularization of science. *Science for All*: *The Popularization of Science in Early Twentieth-Century Britain* (Chicago: University of Chicago Press, 2009), 18.
[143] Robert Gottlieb, *Forcing the Spring: The Transformation of the American Environmental Movement* (Washington, D. C.: Island Press, 2005), 246.

Public health and poverty, where they intersected with the environment, were common entry points to environmental concerns for poor people of color. As Robert R. Gioielli has written, "black folks and other inner city minorities are really the uncounted environmentalists," but they have never used the same language as white, college-educated environmentalists because their environmental knowledge has been specifically local, first-person, and not universal.[144] While more visible and often well-educated white activists attacked issues related to air and water pollution in their cities and on their beaches, poor and minority groups, like those served by community horticulture programs at CBG battled rats and solid waste in their homes and on their blocks.[145] As Nathan Hare wrote in response to the first Earth Day in 1970, "the causes and solutions to ecological problems are fundamentally different in the suburbs and ghetto."[146] In the middle of Chicago, it did not make sense to address the problem of pollution without also, or even first, addressing other systematic problems.

Black mayors realized this. When Carl Stokes was elected the first African American mayor of Cleveland in 1968, he listed the cities problems: "spreading slums, increasing crime, declining [property] tax [income due to decreasing property values]…[rising] infant mortality and illiteracy rates, air and water pollution, and the mounting tensions between the races."[147] Pollution was a real part of the problem, but it

[144] Gioielli, *Environmental Activism and the Urban Crisis*, 6-9.
[145] The victories that mainstream environmentalists won with regard to air and water pollution by and large did not eliminate the waste, it just shifted it to a solid stream, according to Andrew Hurley. As a result, it became just the kind of waste that African American residents often faced in their neighborhoods. Hurley, *Environmental Inequalities, 162*. Stradling and Stradling, *Where the River Burned*, 67.
[146] Nathan Hare, "Black Ecology," *The Black Scholar: Journal of Black Studies and Research* 1, no. 6, (April 1970): 2-8.
[147] Stradling and Stradling, *Where the River Burned*, 5.

was just one issue of many, and one that often seemed over-focused on aesthetics. When Harold Washington followed a few years later as the first African American mayor of Chicago in 1983, "environmentalism" was not state as a major part of his progressive platform. However, he addressed just the kinds of issues that were of most immediate concern in black neighborhoods such as imposing a moratorium on landfill expansion in the city, which concentrated pollution that disproportionately impacted people of color in the exceptionally segregated city of Chicago.[148]

The staff of the urban horticulture department set out to create a healthier environment for city dwellers in ways that empowered them to take actions to develop a stronger sense of community. Their garden projects necessarily worked to physically remove debris from the neighborhoods on the West and South sides of Chicago and to create places that would be maintained as cleaner, more alive places. As Thomas J. Sugrue has written, "Economic and racial inequality constrain individual and family choices."[149] Green Chicago and GROW worked to alleviate these constraints. Residents chose where to seek help, the plans for their garden and park spaces, and the kinds of food they would provide for their families and themselves. The programs worked to build relationships and heathy spaces. Environmental impacts were embedded, but they were never articulated as the major goal of the gardens. Horticultural therapy, though closely associated with community horticulture at CBG both philosophically and organizationally, is likely too confined a category to include community horticulture, but

[148] Casey Bukro, "Environment Piles Up an Issue," *Chicago Tribune,* February 4, 1987.
[149] Thomas J. Sugrue, *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit* (Princeton, NJ: Princeton University Press, 1996), 5.

it remains a strong influence on the legacy of urban and community programs at the garden.

Chapter Four: Educating Children: A Scientific or Environmental Project?

In 1986 and 1987, the Chicago Botanic Garden (CBG) introduced two separate education programs for children in schools. One re-envisioned the Children's Vegetable Garden and its associated outreach program that bussed children from impoverished urban areas to the garden once a week in the summer. Christened Collaborative OutReach Education (CORE), the garden program introduced a curricular component and partnered with the Chicago Public Schools to bring science lessons to as many as sixteen third grade classrooms each year. Designed to make effective use of the garden's resources to support the struggling Chicago Public Schools, the program focused on basic scientific and plant biology knowledge alongside practical nutrition. Children were able to reap their own harvests at the botanic garden.

At the same time, CBG also began to develop the Environmental Education Awareness Program (EEAP). Intended to make use of a part of the botanic garden adjacent to the Children's Vegetable Garden, the prairie that had been established beginning in 1980, the EEAP similarly complimented a science curriculum with field trips to the botanic garden. However, this program was designed to teach fourth, fifth, and sixth grade students in Illinois environmental awareness and ecological processes through a curriculum based in their three native biomes—prairies, woodlands, and wetlands. Introduced into schools in the northern suburbs near the botanic garden, the program and its funders sought to support the development of children who would reach adulthood caring about the environment. Despite this garden's goal to make this program marketable across the state of Illinois and beyond, it never reached the Chicago Public Schools, leaving environmental content outside their curriculum. The geographic and

economic separation between the schools at which CORE and EEAP were implemented was due to a combination of financial, practical, and partnership influences, which, in turn reflected the racial and economic assumptions and realities about different social and educational needs of students in inner-city and suburban schools.

Context: Movements in Science Education and Environmental Education

As they developed these new elementary curricula, the education department staff at CBG responded to contemporary movements and concerns in environmental and science education. In the Chicago Public Schools, concerns about equity, funding, and access to science education took precedence, and CORE sought to directly address these concerns. Meanwhile, EEAP modeled the very best aspects of environmental education as they were being articulated elsewhere in journals, newspapers, and presentations. Though Carol Fialkowski, manager of education at CBG, led the development of both programs with an awareness of these broader movements, the signature of each program reveals distinct educational philosophies and political influences from outside the program.

In the late 1980s and early 1990s, the outlook for science in public schools was particularly bleak, especially in those inner-city schools that were predominantly composed of poor students and students of color. When national science education standards were released in 1996, they implied this divide was a known reality, though in an understated way. The report pointed out that "The [National Science Education] Standards apply to all students, regardless of age, gender, cultural or ethnic background,

disabilities, aspirations, or interest and motivation in science."[1] In other words, students should have access to a level of science education that enabled them to successfully meet the standards laid out in the report. Excellence and equity for all were emphasized, but at the same time, it was recognized that individual schools might reach this excellence and equity in different ways.

Other reports were much more direct on the subject of reduced opportunities for children of limited social and economic circumstances. In 1990, the RAND Corporation completed a study on the extent to which the achievement gap in math and science between students of color and their white peers was due to a lack of opportunities for learning, as opposed to a gap in ability. They found that the availability of learning opportunities was strongly related to the social and economic circumstances of children's families. Specifically, race, social class, and locale at the elementary level had significant effects on the amount of science and math instruction that students received, with low-income, minority, and inner-city students having "considerably less access to science and mathematics knowledge at school, fewer material resources, less-engaging learning activities in their classrooms, and less-qualified teachers."[2] The separation only increased as students advanced to secondary school.

The achievement and opportunity gaps for students were and are a national phenomenon, but they were particularly acute in Chicago during the 1980s. Putting it bluntly in 1987, William J. Bennett, U.S. Secretary of Education called Chicago Public

[1] National Academy of Sciences, *National Science Education Standards* (Washington, D.C.: National Academy Press, 1996), 2.
[2] Jeannie Oakes, *Multiplying Inequalities: The Effects of Race, Social Class, and Tracking on Opportunities to Learn Mathematics and Science* (Santa Monica, CA: The RAND Corporation, 1990), iv-x.

Schools the worst school district in the country.[3] Whether or not it was truly the worst, it clearly faced significant challenges, and this directly affected children of color. In the late 1980s, the population of Chicago Public Schools was fifty-nine percent black, twenty-six percent Hispanic, twelve percent white, and three percent Asian.[4] In response to national attention, the state legislature passed the Chicago School Reform Act of 1988. Its primary intervention was the creation of local school councils, independent governing boards comprised of the elected parents, community members, and teachers along with the principal. These councils were given control over the administration of their local schools, developing and implementing school improvement plans and choosing school principals.[5] At schools where reform was most successful, the impact of community involvement was dramatic and positive. Parents regularly visited schools, test scores rose, school violence went down, and the newly cultivated culture was characterized by a transformative optimism.[6] Though funding, leadership, and demographic challenges

[3] "Schools in Chicago Are Called the Worst by Education Chief," *New York Times*, November 8, 1987. This claim was based on his response to ACT scores that placed more than half of the city's sixty-four public high schools in the first percentile. Bennett further supported his assertion by saying that forty-six percent of Chicago teachers send their students to private schools quipping, "The people who know the product best send their children elsewhere."

[4] Scott Pendleton, "Chicago School Reform Takes Root in Community Action," *Christian Science Monitor*, October 17, 1990.

[5] Scott Pendleton, "Reforming Chicago's School Reform," *Christian Science Monitor*, December 5, 1990. Charles Leroux and Ron Grossman, "Community of Scholars, Good Schools Can Anchor an Entire Neighborhood, Chicago School Reform Shows," *Chicago Tribune*, April 5, 2000.

[6] Leroux and Grossman, "Community of Scholars." Michael B. Katz, Michelle Fine, and Elaine Simon, "School Reform: A View from Outside," *Chicago Tribune*, March 7, 1991. Linda Lenz, "School Reform: Chapter Two//Progress Good; Work Remains," *Chicago Sun Times*, February 4, 1995.

remained, community-based education reforms saw real success in the Chicago Public Schools during the 1990s.

With an ongoing focus on reading test scores and math, to a lesser extent, however, science education remained limited. Struggling with underfunding and poor test scores, already in the mid-1970s, Chicago made a concerted effort to improve readings scores. This pushed resources away from math and science to the extent that many elementary schools had inadequate or completely nonexistent science laboratories and many high school students graduated with only an elementary level of competency in science and math. Like elsewhere across the country, suburban schools were more likely to have more qualified teachers and better curricula, but there was also a disparity within Chicago. Students in wealthy, whiter neighborhoods and at magnet schools were much more likely to have opportunities in science than those in low-income neighborhoods.[7]

Recognizing this educational gap, in the 1990s, the National Science Foundation provided at total of $135 million dollars in grants over five years to reduce discrepancy in science, math, and technology education between rich and poor students to nine cities across the country, including $15 million for Chicago.[8] The ultimate purpose of these grants was to "confront one of the most intractable education issues of our time—the continuing performance gap between the mostly poor and predominantly minority children in the inner city, and their largely white suburban counterparts," according to

[7] Casey Banas and Jean Latz Griffin, "Science and Math Basic Skills Add Up To 'Zero' for Many," *Chicago Tribune*, April 17, 1983.
[8] Marian Moore, "Schools Get $15 Mil Math, Science Boost," *Chicago Defender*, May 11, 1994.

Luther Williams, National Science Foundation assistant director for education and human resources.[9]

Already numerous organizations within Chicago, including the botanic garden, were working on smaller-scale projects to address the science opportunity gap. At CBG, this took the form of CORE, which addressed the challenges in multiple ways. First, it put more science resources at the disposal of schools, providing supplies to teachers without a budget to buy them. By providing a specialized instructor to teach the science lessons in class rather than just a curriculum to an already overburdened teacher, CBG ensured that science instruction time was increased. Garden staff also provided training for classroom teachers to increase their competence. All of these programs were selectively implemented in schools in poor neighborhoods with fewer resources and matched to Illinois State Goals for Learning.[10]

Other science-involved institutions in Chicago addressed similar challenges through their own science programs for children. The Adler Planetarium traveled with an inflatable Starlab that replicated the planetarium experience for students within each school building. The Chicago Academy of Sciences led a program called "Science on the Go!" that allowed students at each grade level to explore a STEM career from zoologist to electrical engineer. In the process of career exploration, students learned the science behind the job title—like how meteorologists measured air pressure, humidity, and wind speed. The Morton Arboretum visited schools to help them "Know Your Own

[9] Elizabeth Shogren, "9 School Systems Get $135 Million to Boost: Science Grants Aimed at Bridging Gap Between Rich, Poor," *Salt Lake Tribune*, May 12, 1994.
[10] "CORE Report for Kraft General Foods, Inc.," July 17, 1996, Folder 3: Outreach Programs: C.O.R.E. 1995, Box 1016B, CHS.

Backyard" with hands-on discovery hikes in their own schoolyards as a jumping off point for learning about ecology, soils, horticulture, and rock investigations.[11]

Although the "Know Your Own Backyard" program sought to meet the needs of suburban schools, as an environment-focused program, it was much closer to EEAP at CBG and sought to reach another, different set of goals that were articulated by a separate environmental education movement. As articulated by UNESCO in 1979,

> "The goal of environmental education is to develop a world population that is aware of and concerned about the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones."[12]

In service of this broader goal, UNESCO made it an aim to provide every person this opportunity to acquire knowledge, attitudes, and skills to protect the environment.[13] Importantly, environmental education that aspires to meet this definition does not stop at the provision of information about environmental issues or ecological functions but attempts to create environmental change by raising moral and ethical awareness and providing relevant skills.

At the Chicago Botanic Garden, EEAP sought to develop a leading environmental education that lived up to these standards by employing a curricular model developed by John M. Ramsey, Harold R. Hungerford, and Trudi Volk that involved a series of four

[11] Joan Giangrasse, "Centers Send Out Messengers to Spread Science Word," *Chicago Tribune*, January 2, 1994.
[12] UNESCO-UNEP, "The Belgrade Charter," *Connect: UNESCO-UNEP Environmental Education Newsletter* 1, no. 1 (1976): 1-2.
[13] UNESCO, *Final Report: Intergovernmental Conference on Environmental Education* (Tbilisi: USSR, 1978), 14-26.

components.[14] Though students could not be expected to become environmental actors after knowledge-based lessons alone, *knowledge* acquisition was the basis for further development. Once students knew about environmental processes and issues, they could develop *investment* in an issue or investigation and then *ownership* of this knowledge and experience. Finally, the curriculum and associated experiences should inspire *empowerment*, giving the students a belief that they could enact successful positive actions. The main way that the curriculum led students through this process was through environmental service projects at their schools. Fourth grade students completed a school recycling project to help reduce the use of the forests they were learning about. Fifth grade students established a prairie garden at their school as they learned about prairie ecosystems, and sixth grade students developed a water conservation or wetlands action project of their own design to complement lessons on wetlands. As they were led through active participation in these projects, the hope was that students would continue to feel equipped to enact environmental change throughout their lives and have the desire to do so.[15]

In addition to embracing active learning, EEAP also integrated learning around a theme, a research-supported method of closing the achievement gap and providing generally more engaging instruction. The EEAP program was designed to incorporate multiple disciplines, from reading and writing to math, alongside science content in one interdisciplinary, collaborative, and hands-on curriculum. Educational researchers have

[14] John M. Ramsey, Harold R. Hungerford, and Trudi Volk, "A Technique for Analyzing Environmental Issues," *The Journal of Environmental Education* 21, no. 1 (1989): 26-30.
[15] Carol Fialkowski, "Education about the Environment," *Public Garden* 5, no. 2 (April 1990): 28-29, 36-37.

subsequently demonstrated that this practice, known as making environment the integrating context for learning, results in better performance on standardized tests across disciplines, increased student engagement, fewer disciplinary problems in classrooms, and greater student ownership in accomplishments. In particular, students in programs that used the environment as an integrating context for learning scored as well or better on standardized science tests than their peers in traditional science programs.[16] Researchers have also demonstrated contextual environmental education as a means for closing the achievement gap across disciplines because it provides a framework for intriguing learners and revitalizing teachers.[17] This suggests that a well-executed environmental education program could be effective in addressing not only the goals that EEAP adopted but also those espoused by CORE, like teaching basic science literacy. Despite at least one attempt to expand EEAP into the Chicago Public Schools, however, it remained a suburban project.[18]

Ultimately, the nature of the shaping philosophies for environmental education were less public than those for science education, but the EEAP and CORE programs were both a part of active dialogues in the communities of practice that incorporated CBG education department leaders. Discrepancies in the quality of elementary science education played out in the news and national and local government reports. The need for environmental education received international attention and action from local

[16] Gerald A. Liberman and Linda L. Hoody, *Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning, Executive Summary* (San Diego, CA: State Education and Environment Roundtable, 1998), 6.
[17] Liberman and Hoody, *Executive Summary*, 11.
[18] "Proposal for the Lloyd A. Fry Foundation: for the Environmental Education Awareness Program," June 21, 1990, Folder 1: Outreach Programs 1987-96: CPRE and EEAP, Box 1016B, CHS.

environmental groups and organizations. The Chicago Botanic Garden got involved in both discussions, equipped with expertise in science education and ecological knowledge.

Program Leadership

While contemporary research and news coverage mirrored many of the themes incorporated as part of the philosophical basis of the CORE and EEAP programs at CBG, it was the program leaders themselves who designed these elementary education programs. In the late 1980s, the children's education department at the garden had six staff members, five of whom had classroom teaching experience and four of whom had a master's degree or doctorate.[19] Many of them had a particular interest in curriculum development and educational research, an interest they actively incorporated into the design of their programs.

Carol J. Fialkowski, manager of education at the Chicago Botanic Garden from 1986 until 1990, was particularly engaged in these issues. Already in mid-career and an adjunct faculty member in the environmental education program at National Louis University, in Wheeling, Illinois, during her tenure at the garden, Fialkowski began her career as a classroom teacher before pursuing a master's degree in environmental science education and becoming a teacher and naturalist at the Morton Arboretum, near Lisle, Illinois, southwest of Chicago.[20] Her work there focused on two programs, the residential environmental education program and the Arboretum/Chicago Public Schools'

[19] "Proposal for the Lloyd A. Fry Foundation: for the Environmental Education Awareness Program."
[20] Carol J. Fialkowski, "Curriculum Vitae," accessed September 24, 2019. https://www.thirteen.org/edonline/wue/resumes/carol_resume.PDF.

environmental education program. The residential environmental education program featured a two-and-a-half-day overnight program for nearby fifth graders to experience the natural forest, wetland, and prairie ecosystems of the arboretum. Initiated in 1979 under Fialkowski's direction, the program was integrated into visiting classes' science, social studies, and language arts curricula back at the visiting students' schools.[21] This represented an idea for environmental education that was replicated in the EEAP program.

Fialkowski's influence on the EEAP and CORE programs was direct as she guided both curricular development and their execution by her staff. This included managing program budgets and contacts. While Fialkowski did not deliver either program in classrooms regularly, she focused well on her developing research and curricular interests. Integrating an increasingly academic understanding of her work, Fialkowski began to publish regularly on the topic of making environmental education accessible to students in urban settings. Meanwhile, the environmental education program she led at CBG remained a suburban one.

Alan Rossman was hired as the manager of education after Fialkowski left to become the director of environmental education at the Field Museum in Chicago. Rossman received his bachelor of arts degree from Washington University, St. Louis in 1980 and his Ph.D. in education-teaching-learning processes from Northwestern University in 1987 with a dissertation focused on teaching students to read.[22] In between,

[21] Barbara Dillard, "Woodlands are Their Classroom: Pupils Get to the Root of Nature in Arboretum," *Chicago Tribune*, May 8, 1985.
[22] Northwestern University, "One Hundred and Twenty-Ninth Annual Commencement," June 20, 1987, Evanston, Illinois, 74. Rossman's dissertation was entitled, "The Effect of

he gained little to no practical classroom teaching experience but significant curricular expertise. After graduation, he continued to work at Northwestern University as the associated director of teacher education before moving to CBG in 1990.[23] While involved actively in the administration of CBG's youth education programs where he shaped the publication of the EEAP curriculum as well as ongoing program revisions of CORE, his professional interest remained in curricular development, though shifting topically to science and environmental education. Following his time at CBG, Rossman became a professor in the department of curriculum and instruction at National Louis University.[24]

Susan Burd Brogdon, director of education, had a less immediate but important impact on the development of CORE and EEAP, especially their funding and local reputations. Brogdon, who had joined the garden as the manager of adult education in 1977, had risen to become the director of education by the late 1980s.[25] Much like Rothert, she had risen to increasingly responsible positions over her time at the garden, supervising programs where she had no direct expertise. Though Brogdon had years of experience in horticultural education, her university education was in horticulture and her work since then had been primarily with adults and in botanic garden management. In 1995, she was promoted to vice president of programs, which continued to include the

Uninterrupted Sustained Silent Reading Strategies on the Attainment of Automaticity in Reading," (Ph.D. dissertation, Northwestern University, 1987).

[23] Alan D. Rossman, "Managing Hands-on Inquiry," in *Teaching Teachers: Bringing First-Rate Science to the Elementary Classroom* (Arlington, VA, NSTA Press, 2002), 40-42.

[24] Diane Salmon, Alan Rossman, and Vito Dipinto, "Knowing by Doing and Doing by Knowing: Developing the Metacognition of Middle School Science Teachers," *Science Scope* 35, no. 6 (February 2012): 70-74.

[25] Chicago Horticultural Society and Botanic Garden, *Annual Review 1977*, 5.

education division but also incorporated the urban horticulture department, among others, as part of a restructuring that followed the realignment of the CORE program with CBG's urban gardening program.[26] By this point, Brogdon was primarily an administrator, and her role and expertise as such were recognized by her articles in *Public Garden*, promotion to vice president, and departure in 2000 to become the executive director of the Tucson Botanical Garden where she was tasked with building programs that connected with a diverse community and attracted new visitors to the garden.[27] This suggests that she had a reputation for being actively involved in and supportive of community horticulture programs at the garden.

In fact, the educators who taught the EEAP and CORE programs in classrooms and gardens were ultimately responsible for making the programs' goals and curricula a reality. Unfortunately, their opinions, roles, and identities are less well documented. Patricia S. Flynn was the inaugural teacher in the CORE program, leading it for three seasons, from 1987 through 1989. She was followed by Cynthia Carwell for one year and then Jim Vear, who led the program from 1991 until 1995 after which the program was led by Lynn Lovewell in 1996 and another staff member the following year.[28] In each case, the CORE instructor had two main roles, delivering educational lessons in

[26] "Welcome TBG Director, Sue Brogdon," *The Plant Press: The Arizona Native Plant Society* 24, no. 3 (Autumn 2000): 15.
[27] "Welcome TBG Director, Sue Brogdon."
[28] Chicago Horticultural Society, *Teacher's Folder: Collaborative OutReach Education* (Glencoe, IL, Chicago Horticultural Society, 1990). Lynn Lovewell had previously been a high school science and math teacher in Michigan and returned there after her time at CBG. "New Teacher Portraits," *Jordan Journal*, September 9, 1998. Sunny Fischer and Iris Kreg and Associates, Inc., "Evaluation of the Chicago Botanic Garden Collaborative OutReach Education (CORE) Program," September 1996, Folder 3: Outreach Programs: C.O.R.E. 1995, Box 1016B, CHS.

elementary school classrooms and maintaining the Children's Vegetable Garden at CBG in the summer. According to Vear, accompanying students through lessons on parts of a plant, where they discussed food that came from different parts of a plant and other topics, came most naturally because it aligned with previous teaching experience. The summer program involved long hours in the garden in addition to hands-on activities with students. Those activities were usually led by volunteers, but the staff person had the final responsibility for discipline.[29] This preference for the classroom may have been particular to Vear, who was trained as a high school science teacher and left a job at the Chicago Academy of Sciences teaching ecological citizenship to urban students in grades three through eight before joining the CORE staff.

Together, these staff members at CBG shaped the CORE and EEAP programs in complementary ways and in concert with funders and community members. Brogdon worked with fundraising staff at the garden to seek grants to support programs in her department. She also negotiated partnerships with schools and the director of science programs at Chicago Public Schools.[30] Fialkowski and Rossman were dedicated to program philosophy, content, and development, seeking evidence-based activities and mechanisms to craft effect educational programs. Vear, Flynn, and their fellow instructors actively implemented these programs in an engaging way that brought plants and science to life for their students. They responded collectively to the needs of the

[29] Vear Oral History, 8.
[30] "Proposal for the Lloyd A. Fry Foundation: for the Environmental Education Awareness Program." Jim Vear interviewed by Reba Luiken, August 14, 2018 in Glenview, Illinois, 15.

community as reflected in national news coverage, local participants, and multiple funding streams.

The Community Speaks through Money

The Environmental Education in Action Program was not only influenced in its development by the suggestions of funders, but it was also actively co-created at their prompting and to meet their goals. The primary motivation for EEAP's connection to North Shore schools was the leadership of philanthropists and volunteers from these Chicago suburbs. In fact, the genesis of the program was not initiated by CBG at all but by Patricia Kelly Healy, a member of the Winnetka Garden Club.[31] Passionate about environmental issues, Healy suggested that the botanic garden might develop an environmental education program in 1987 with a focus on conservation to help augment existing school science curriculums. To fund the launch of the program at five public Winnetka elementary schools that fall, Healy provided a personal donation and organized the garden club to provide a grant for a total of $55,000 in funding over the first two years of the program. This was an idea that Healy was willing to support with both her financial and social capital. The project was also appealing to the general membership of the Winnetka Garden Club and more than agreeable to staff at the Chicago Botanic Garden, given the available monetary resources.

[31] "Winnetka Garden Club Application for Founders Fund Award of the Garden Club of America for the Environmental Education Awareness Program," 1990, Folder 1: Outreach Programs 1987-96, CPRE and EEAP, Box 1016B, CHS. The Winnetka Garden Club and Kenilworth Garden Club are members of the Garden Club of America and focus on the social and philanthropic goals of their members, who join by invitation only.

Importantly, Healy and her fellow garden club members were also members of the community that the program was designed to serve. Healy was passionate about the environment and the education of children, and she combined these interests in multiple donations to a cause in her own backyard, helping the children of her neighbors and local schools.[32] Her fellow club members were likewise helping their neighbors, if not their own children or grandchildren, to learn the environmental skills they thought essential to a bright future for the children, their community, and the world. In other words, this was a case of a community developing a program that served their own self-defined goals alongside the expertise of botanic garden staff. As donors and volunteers, community members on the North Shore of Chicago were active co-creators of the EEAP program.

Healy's primary goals for the EEAP program were the inspiration of young people to care about the environment and the provision of science education that could support the future enactment of that outlook. This was translated by Carol Fialkowski, Joe Baron, Alan Rossman, Deb Chapman and others at the garden into a concrete curricular philosophy:

> "The complex interdependence of all living things demands that, in order to insure the survival of existing species including our own, rapid and dramatic changes in our environmental management must be forthcoming. As inhabitants of this planet, we must reexamine our values and habits in relation to the environment. As educators, we must search for effective ways to develop the necessary knowledge, skills, abilities and attitudes of those who will eventually inherit the stewardship of the natural environment."[33]

[32] "Patricia Kelly Healy," *Chicago Tribune*, June 3, 2008.
[33] Chicago Botanic Garden/Education Department, *Environmental Education Awareness Program: The Woodland Community: Grade 4* (Glencoe, IL: Chicago Botanic Garden, 1992), 1.

In other words, teachers were to help secure the survival of humanity and other earthly inhabitants by increasing students' knowledge and developing their attitudes toward environmental awareness and care. The need for this kind of program was reinforced by a policy statement from the National Science Teacher's Association that stated, "It is imperative that students at all levels develop an understanding of how humans relate to natural systems, and realize the importance of making wise individual and social decisions in respect to the resources and maintenance of environmental quality." This could best be achieved through firsthand interaction with ecosystems and intuiting a link between exposure and future action.[34]

After discovering that children between the ages of nine and thirteen had "the greatest aptitude to acquire knowledge and develop [new] attitudes," the curriculum was targeted at students in this age range in grades four through six.[35] It drew heavily on content previously published in other environmental curriculums. Their source material included Project Learning Tree (from the American Forest Council), Ranger Rick's Nature Scope, and Project Wild (Western Regional Environmental Education Council). CBG staff supplemented such information with their own contextual information and activities, which often integrated science with language arts, again following the developing best practices for environmental education.[36] Field trips to nearby natural sites (or recreated natural sites like the prairie at CBG) provided a primary source of

[34] Chicago Botanic Garden/Education Department, *Environmental Education Awareness Program*, 1.
[35] "Winnetka Garden Club Application for Founders Fund Award of the Garden Club of America for the Environmental Education Awareness Program."
[36] Liberman and Hoody, *Executive Summary*, 6.

inspiration for students, allowing them the opportunity to have formative experiences with the natural landscapes of Illinois. Classroom instruction was not sufficient.[37]

While these field trips and their partnering classroom lessons had theoretical support among educational researchers, they also had practical, material support from community members. Over the EEAP program's ten years, the partnership between the Winnetka Garden Club and the CBG continued to develop. The program continued to draw funding from Garden Club of America resources, receiving additional funding from the Kenilworth Garden Club and a national Founders Fund Award in 1990.[38] The $20,000 grant supported the publication of curriculum guides, teacher training scholarships ($110 each for sixty teachers), the purchase of supplies, and development of conservation action projects and outdoor study materials.[39] The program was also supported locally by the Junior League of Evanston-North Shore, who provided the program with a grant of $21,000 over three years, beginning in 1991 and devoted themselves to training in "environmental science and teaching methodology" in order to personally assist the expansion of EEAP into more classrooms.[40]

Together, staff, teachers, volunteers, and funders worked to build a curriculum that was a more comprehensive educational program than those it borrowed from. The curriculum was designed for students to pursue the lessons in sequential years, with each

[37] Kathryn T. Stevenson et al., "Environmental, Institutional, and Demographic Predictors of Environmental Literacy among Middle School Children," *PLoS ONE* 8 no. 3 (March 2013): e59519.
[38] "Winnetka Garden Club Application for Founders Fund Award of the Garden Club of America for the Environmental Education Awareness Program."
[39] "Winnetka Garden Club Application for Founders Fund Award of the Garden Club of America for the Environmental Education Awareness Program."
[40] "Letter to Mayer and Morris Kaplan Family Foundation," May 24, 1991, Folder 1: Outreach Programs 1987-96, CPRE and EEAP, Box 1016B, CHS.

subsequent unit introducing more content. Adaptation, community, diversity, change, energy, cycles, and interaction and interdependence were the core themes of the curriculum, and each was further developed from one grade to the next as was laid out in each teacher's manual. The program also built seasonally. Students competed in-class and field-study lessons in each of the school-time seasons.[41] These field studies were an essential structural part of the curriculum because those experiences in nature were critical to elicit change in students' opinions about the environment.[42] In general, field studies were difficult to coordinate, but partnering with CBG made them easier because students had access to all three of the curriculum's biomes at the garden.

Originally, the program was piloted in five schools within the Winnetka School District, another powerful supporting partner. Winnetka's public schools were known for excellence and served the children in the wealthiest city in Illinois. It was also known as an innovative school system.[43] In the 1920s, Carleton Washburne developed a Dewey-inspired curriculum for the Winnetka public schools called the Winnetka Plan, which allowed students to work through the curriculum at an individualized pace with help from teachers where needed, a model later known as programmed instruction.[44] This openness to change and exceptional reputation of the Winnetka public schools made them both a convenient and strategic location to develop a program intended to be sold to schools across the state. The assumption was that schools across Illinois would be more

[41] "Environmental Education Awareness Program: An Introduction," n.d., Folder 1: Outreach Programs 1987-96, CPRE and EEAP, Box 1016B, CHS.
[42] Stevenson et al., "Environmental, Institutional, and Demographic Predictors of Environmental Literacy among Middle School Children."
[43] Herbert M. Kliebard, *The Struggle for the American Curriculum, 1893-1958.* 3rd ed. (New York: Routledge, 2004), 216.
[44] Kliebard, *The Struggle for the American Curriculum, 1893-1958*, 176.

interested in the EEAP program simply because it was something the "best schools" did.[45]

The organization of the Winnetka School District itself shaped the curriculum's roll-out. Because the district began middle school in fifth grade and the EEAP program bridged this gap, it was essential that all schools in the district participate. Students in the district's four elementary schools would complete the first year of the curriculum, and those at the middle school would complete the second and third. Appropriately enough, these fifth and sixth graders attended Skokie Middle School, named for and a city block from the southern end of the Skokie Lagoons, an embodiment of the wetland ecosystem studied in the final year of the program and a conveniently located field trip site.

Support, both financial and reputational, continued to build for the EEAP program and to shape its development. The Cook County Forest Preserve District, The Nature Conservancy, the Chicago Academy of Sciences, local school districts, and the state board of education were all impressed with the interventions the EEAP was making in the suburban schools. In 1988, "[t]hey unanimously agreed that there is a need for this type of sustained environmental education in the schools and that it is not duplicated elsewhere in such depth and breadth."[46] With this support in mind, CBG began preparing the curriculum for sale and broader use. Having gathered the support of multiple state and local science and education institutions, the program also expanded into schools in Northfield, Wilmette, and Glenview in the fall of 1989. Though each district had its own method for dividing grades among buildings, further diversifying the curriculum's

[45] Vear Oral History, 19.
[46] "Winnetka Garden Club Application for Founders Fund Award of the Garden Club of America for the Environmental Education Awareness Program."

physical configuration, they had similar racial and economic demographics to the Winnetka schools, which continued to receive CBG support to implement the curriculum. Ultimately, however the goal for the curriculum was for it to be carried out independently by schools and school districts with no CBG intervention at all.[47]

Money Speaks and So Does the Community

While CBG staff hoped that the CORE program would be self-sustaining in the schools where it was introduced, its goals were different, as was its funding. Like Green Chicago, when the CORE program was introduced in 1986, its funding came from the Joyce Foundation, which funded projects at the nexus of education, conservation, and culture.[48] With $93,000 in start-up funding, Patricia Flynn, the first CORE coordinator began outreach to sixteen third grade classrooms with a plant science curriculum intended to be delivered in part by teachers who had received summer training and in part through monthly visits by the coordinator.[49] Beginning in May, students would take weekly field trips to the botanic garden as they tended their own garden plots with the help of volunteers. Students could continue these trips throughout the summer, spending a morning or afternoon at CBG during which they worked in the garden, did a weekly

[47] "Winnetka Garden Club Application for Founders Fund Award of the Garden Club of America for the Environmental Education Awareness Program."
[48] "Core Donations," 1995, Folder 3: Outreach Programs: C.O.R.E. 1995, Box 1016B, CHS. In 1987, the Joyce Foundation provided transformational funding to the Plantmobile program which, as a result, shifted its mission toward support of Green Chicago and away from small outreach presentations and educational workshops. "Urban Horticulture Department, 1987 Progress Report," 1987, Folder 5: Urban Horticulture Programs 1987-1993, Box 1014, CHS.
[49] Carol Fialkowski, "Involving Students in Plant Science," *Public Garden* 5, no. 2 (April 1990): 20-21.

activity like making scarecrows or salads, and received lunch. Their siblings and parents were invited to attend as well, and many did. An extension of Flynn's work in the Children's Vegetable Garden, the program was intended to put CBG's resources to practical use for the urban community.

After positive first year reviews, the program was continued for another year with the receipt of a grant from Kraft Foods. In exchange for $156,000 over three years, CORE staff would continue the program as it had been implemented in 1986 but expand and improve teacher training, implement site beautification projects at each participating school, and develop a model garden in a more proximate location on the west side of Chicago, targeting Hispanic families as participants.[50] They also agreed to pursue the production of curricular materials to be more widely distributed and to provide a formal evaluation of the program.[51] Whether or not all of these aspects of the program were implemented or not is unclear, but Kraft Foods remained a funder of the program through 1994, although at a reduced level.[52]

While Kraft supported a number of educational outcomes for the CORE program, their explicit goal was helping to meet the food needs of the community, and the program accomplished this in three ways.[53] With each visit to the garden, the garden coordinator prepared lunch for the students and their families with Kraft Foods products. In the vegetable garden, children were actively growing vegetables that they could and did

[50] "Involving Students in Plant Science," 20-21.
[51] "Involving Students in Plant Science," 20-21.
[52] Core Donations."
[53] "Botanic Gardens Yield Crops Aplenty," *Chicago Defender*, Thursday, October 23, 1986, Folder: Portfolio-Hist. Green Chicago, RS. "Report for the Kraft General Foods Foundation: Collaborative Outreach Education Program, 1991-92," 1992, Folder 2: Outreach Programs: C.O.R.E. Pre-1995, Box 1016B, CHS.

bring home to their families. The children were able to grow far more produce than they could eat, and the surplus became a welcomed donation to the Chicago Food Depository, which usually received almost-expired food from restaurants and grocery stores and therefore infrequently had fresh fruit and vegetables to distribute.[54]

Already in its second year, the program was directly influenced by funding in a way that was different than EEAP. Although EEAP experienced some funding changes over the course of its decade of existence, it had a much more consistent funding stream, comprised primarily of the Winnetka Garden Club and its members, with a guarantee of support from the botanic garden's general operating budget. In contrast, CORE was entirely dependent on changing grants, changing granting institutions, and therefore changing markers of success. The Joyce Foundation provided one year of funding directed toward a program at the intersection of conservation and education, followed by funding from the Kraft Foods Corporation, which had substantially different motivation and goals for their participation in the project with a focus on "nutrition education for those who need it most."[55] In 1991, CORE's budget was reorganized once again, doubling with the support of the Fry Foundation, which funded projects addressing urban issues and supporting residents with financial need in Chicago through education.[56] Once

[54] Vear Oral History, 12. This idea that a primary benefit of children's gardening efforts might be providing food for their families mirrors the logic behind US Bureau of Education gardening programs in the first decades of the twentieth century. Christine B. Damrow, "'Every Child in a Garden': Radishes, Avocado Pits, and the Education of American Children in the Twentieth Century," Ph.D. diss. University of Wisconsin-Madison, 2005, 106.
[55] "Report for the Kraft General Foods Foundation: Collaborative Outreach Education Program, 1991-92," Folder 2: Outreach Programs: C.O.R.E. Pre-1995, Box 1016B, CHS.
[56] Lloyd A. Fry Foundation, "Core Donations," *2003 Annual Report*, 1.

again, CBG used this money, not to expand the program, but to improve the curriculum and teacher training program.

None of this grant money, which helped direct the goals of the program, came directly from community members being served. After all, the purpose of the CORE program was to assist communities struggling financially to support themselves. However, sponsors were all Chicago-based or Chicago-focused philanthropic organizations. In this way, they were invested in the education of Chicago children and the safety of their neighborhoods but in a less immediate and personal way than the supporters of EEAP. As reports of struggling schools and local violence played out in the news, local organizations sought to help. One could say it was Chicago helping its own, but it was clearly one group of Chicagoans helping another not a coherent community seeking to improve itself.

This is similarly true of another group CORE supporters—individual donors and volunteers. In 1992, Gil Wascher became a supporter of the CORE program twice over, both as a continuing volunteer and as a financial supporter. Gil had been a long-time volunteer in the Children's Vegetable Garden, beginning after he retired as an accountant in 1981. In 1987, Wascher was named CBG volunteer of the year, in recognition of being more than just another volunteer in the garden. Jim Vear choked up remembering the impact of Wascher on him and the program overall, "it was kind of like his baby… without him, it wouldn't have been the same."[57]

Though Wascher was one exceptional volunteer, the CORE program's Children's Vegetable Garden relied on the support of over forty volunteers who spent one or more

[57] Vear Oral History, 15.

mornings a week in the garden working with small groups of children and leading craft activities. Comprised mostly of retirees, these active volunteers were loyal to the program and returned year after year as long as their health enabled them to do so. While a few of these volunteers visited CORE program classrooms on occasion, their efforts were concentrated in the garden. Though not integral to the delivery of science curriculum or teacher training, declining volunteer numbers put stress on the program in the mid-1990s as recruitment dipped and many volunteers aged out of the program. Notably, these supporters were part of the larger Chicago metropolitan community, but they did not come from the same neighborhoods and families as the children who participated in the CORE program.

Importantly, grant funding was part of a separate input stream than the garden's feedback from community members about the CORE program's suitability and success. The reviews CBG staff received from teachers, students, and their families was mixed. The children loved the opportunity to visit the botanic garden regularly in the summer and were fascinated by the glimpse of the natural world that it provided—one largely unavailable to them in their urban neighborhoods with a very different social and biological geography. While Chicago had many large parks in a green belt park system, there were few small parks within walking distance from most homes, especially those of students in poor and diverse neighborhoods. Teachers noticed the enthusiasm with which children spotted insects and shared their sightings with each other when they had the opportunity to visit the botanic garden. Pat Keeley, a teacher from Alcott School, in the gentrifying Park West neighborhood, noticed, "Kids who don't do much as school really

come to life out here in the garden."[58] Noemi Pancho, a participant's mother, praised the program, "This is better for them than being in the hood, the way the gangs run and the drug dealing that goes on, it's no place for a young boy."[59]

These were the experiences quoted in the newspaper, but in reality, the program was not universally well-received, as internal complaints demonstrate. Parents were unwilling or unable to get students on the busses that took them to the suburbs for the summer program, and even many teachers were lukewarm to the idea that they would need to donate some of their summer time to support the program at the garden. Botanic garden staff found these responses frustrating but understandable in the context of the stresses teachers and families faced in inner-city Chicago. Still, the ongoing reality of often-reluctant participation continued to be a challenge for program staff.[60]

Program staff were responsive to feedback from these community members. In fact, it was previous feedback from community members that helped to orient the CORE program away from topics like those covered in EEAP. Previous work with Green Chicago and other research suggested that the parents of students in impoverished neighborhoods in Chicago did not see the environment in a way that would have been compatible with an EEAP-type program. Green Chicago and GROW staff did not talk about the environment directly when they worked with community gardeners because it

[58] Susan Wisbey, "City Students Experience Joy of Gardening," 1986, Folder 8: Various Outreach Programs, Box 16C, CHS.
[59] David Silverman, "Inner-City Kids Reap Lessons to Grow On," *Chicago Tribune*, August 25, 1994.
[60] "Field Foundation of Illinois: Chicago Horticultural Society Grant Awardee 1993/1994," n.d., Folder 7: Collaborations/Green Chicago/A Community Gardening Program, 1995-97, Box 16C, CHS.

did not feel directly relevant to their work.[61] Relatedly, as other historians of urban environmentalism have articulated, "the seemingly evident environmental crises facing these urban communities—problems of lead poisoning, weatherization, and asbestos—are not confronted as environmental problems; rather, they are realized as health and housing issues."[62]

In 1990, an EPA study on environmental education found this logic to be common across organizations and American cities: "Poverty, racial discrimination, poor housing, financial insecurity, and violence are all barriers to the achievement of what is considered a normal standard of living. Thus, the environment is viewed as a superfluous topic."[63] They make an important distinction here, specifying not that the environment *is* a superfluous topic (the overall report is, in fact, arguing the opposite) but that it is *viewed as* a superfluous topic by many local community members.

Contemporary and subsequent environmental activists of color and educational researchers have articulated this more clearly. Dorceta E. Taylor explained that it is not so much the concept of environmentalism or caring about the environment that is disconnected from the experience of people of color but subject matter chosen to

[61] Vear Oral History, 3. Rebecca Severson, interviewed by Reba Luiken, August 24, 2018 in Evanston, Illinois, 26. Cliff Zenor interviewed by Reba Luiken, August 17, 2018 in Mishawaka, Indiana, 25.
[62] Rory E. Verrett, *The Urban Environmental Education Report* (Washington, D.C.: The United States Environmental Protection Agency, 1990), 10. Other authors have suggested something similar. Andrew Hurley, *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980* (Chapel Hill: University of North Carolina Press, 1995), 111-112. Jeffrey Craig Sanders, *Seattle and the Roots of Urban Sustainability: Inventing Ecotopia* (Pittsburgh: University of Pittsburgh Press, 2010), 67, 71.
[63] Rory E. Verrett, *The Urban Environmental Education Report*, 10.

illustrate this ideal.[64] Often, environmental education curricula focused on environments like prairies or wetlands that were outside the experience of children of color or poor students. However, there were plenty of things, like mice, squirrels, pigeons, and abandoned lots that were equally a part of the environment and far more familiar to urban students.[65] In fact, vacant lots were a particularly obvious place for students to observe ecological succession in action.

Calls to incorporate these and other aspects of environmental experience into a multicultural environmental curriculum in a way that would make them relatable to urban students went unheard nation-wide, making the experience of institutional environmental education unavailable on two counts. It was usually not offered in the schools of urban students. When environmental education was offered, it was not done in a way that was responsive to students' lived experiences and therefore it was ineffective at inducing students to care about and act on behalf of their environment.[66]

With this in mind, it was a culturally responsive move on the part of CBG staff not to implement the EEAP program in the context of two disparate environmental settings. The EEAP program helped northern suburban students connect with nearby wetlands, forests, and prairies—places they were already familiar with—in ways that helped to related to broader environmental themes and issues. In contrast, these landscapes would have been largely foreign to the students served by the CORE program,

[64] Dorceta E. Taylor, "Making Multicultural Environmental Education a REALITY," *Race, Poverty & the Environment* 6, no. 2/3 (Winter/Spring 1996): 3-6.
[65] Taylor, "Making Multicultural Environmental Education a REALITY," 3-6.
[66] Bethany Facendini, "Teen Eco Action: Moving towards Environmental Justice through Outdoor Education for At-Risk Urban Youth," (MA thesis, Sonoma State University, 2011), 2.

making even the successful EEAP program a likely failure there. However, Hazel Johnson, "black mother of the environmental movement" in Chicago and resident of the Altgeld Gardens housing project in Chicago, called for her "neighbors and schoolchildren to be educated about the environment…so that future generations will be able to do something about pollution before it becomes a major problem."[67] Those calls for urban environmental education for black and Hispanic students went unheeded in the schools.

Refining a Curriculum with the Classroom Community in Mind

Staff leaders of the Collaborative OutReach Education program continued to fiddle with its structure and methods from year to year both in response to teacher feedback about what was not working and to secure ongoing funding for the project. Ultimately, this involved increasing the quality of teacher training, redesigning the curriculum itself to be more interdisciplinary, expanding the program to reach students at multiple grade levels, and adding a more robust garden project at school sites. Together, these changes were intended to be responsive to the needs of teachers and to make the program a larger part of the school and neighborhood communities.

The CORE coordinator's relationship with classroom teachers was both a point of stress and the closest point of connection CBG had to the school communities they were serving. With teachers' struggles to implement the curriculum at the front of staff's minds, frequent adjustments to the CORE program often prioritized teacher feedback over other forms of input. When CBG began to work with Kraft Foods to fund the

[67] "87 People to Watch in 1987," *Chicago Tribune*, January 7, 1987. Debra Hale, "Environment Activist Applauded for Work, Woman Has Crusaded Against Area Pollution," *St. Louis Post Dispatch*, December 14, 1992.

program, the CORE program added a teacher training component to reinforce an expectation that teachers would actively deliver pieces of the curriculum to their students when the CORE instructor was not present. When more funds were received from the Fry Foundation in 1991, training was expanded so that each teacher received thirty-six hours of training over one week, intended to help them be more confident in teaching science. When surveyed in 1992, one hundred percent of teachers agreed that the workshop had successfully improved their science teaching, increased their understanding of plant science, and increased their confidence in teaching science.[68] As a reward for their participation and time, teachers were awarded continuing education credits at the conclusion of the training.

Similarly, the CORE curriculum was rewritten and modernized with eye-catching graphic design in 1991 with the goal of "engaging the 'science shy' teacher to adopt a more effective teaching method," for her science classes.[69] The sixty-page curriculum included lessons that were benchmarked to state standards for the first time. This was again responsive to the needs of teachers who were unlikely to have another science curriculum already in place in their classrooms. The CORE curriculum needed to meet all of students' science needs if it was to be successful at ameliorating the science access deficit in their classrooms. Teachers liked these modifications.[70]

To achieve long term success at improving science instruction in Chicago Public Schools, the CORE staff needed to create an environment where teachers were

[68] "Report for the Kraft General Foods Foundation, 1991-92."
[69] "Report for the Kraft General Foods Foundation, 1991-92."
[70] Fischer and Iris Kreg and Associates, Inc., "Evaluation of the Chicago Botanic Garden Collaborative OutReach Education (CORE) Program."

empowered to continue the program in subsequent years. An important difference between CORE and EEAP was that in most cases, schools only participated actively in the program for one year, after which the CORE coordinator would visit a new group of schools the following year. Teachers needed help to continue implementing the curriculum after CORE staff no longer made monthly visits to the classroom and students were no longer in the garden visit program if the change was to be stable in their schools. To help make this a reality among teachers facing numerous pressures, CORE staff implemented increased support for the curriculum during the 1992 to 1993 school year. The CORE coordinator now visited schools in their second and third years of participation and provided lesson materials, more teacher trainings, and a newsletter for teachers.[71] Much like the previous models developed by Green Chicago and the garden's horticultural therapy program, the goal was to make an intervention in a community that would have a sustained impact.

CBG felt the program to be so improved, in fact, that they implemented the CORE program again that year in the same schools had served the year before. These eleven repeat schools were all located in one of the poorest sections of Chicago, in the North Lawndale, South Lawndale, Near West Side, and Lower West Side neighborhoods.[72] John Spry Elementary in South Lawndale exemplified some of the struggles these schools faced. In the early 1990s, Spry was overcrowded with 1,357 students, one hundred percent of whom were low income. Ninety-six percent of students

[71] "Report for the Kraft General Foods Foundation, 1991-92."
[72] Jungman (Near West Side), Cardenas (Little Village), Corkery (Little Village), Gary (Little Village), Washington Irving (Near Westside), Johnson (North Lawndale), Kanoon (Little Village), McCormick (Little Village), John Spry (Little Village), Whitney (Little Village), Perez (Lower West Side).

were Hispanic and fifty-one percent of them had limited English proficiency. The student population was also very unstable. In 1989, Spry had a sixty percent mobility rate, that is sixty percent of students did not stay at the school from one year to the next. By 1992, after the first wave of school reforms in the district, the mobility rate fell to forty percent. One result of the pressure to succeed and the seriousness of these challenges was that the school's principal, Carlos Azcoitia, commented in 1993, "We are focusing extensively on student assessment and how to we really deal with the IGAP and ITBS [standardized tests]."[73] Any science curriculum needed to be squeezed in around the edges and to integrate the teaching of basic skills.

The reality of repeat participants demonstrates the program really did not meet teachers' and schools' needs for ongoing support, which could be exceptionally high. Before 1992, a number of schools had repeated the program, perhaps due to staffing changes at the third grade or administrative level. Perez, originally a participant in the CORE program in 1988, was brought back for the 1991 school year and therefore ended up repeating the program three times. However, the need to stay at the same schools with a new curricular system in the 1992 school year was particularly telling. Program sustenance was not a school-specific issue but a system-wide issue.

Over time, CORE staff came to realize that involving more than one classroom and especially the principal in the project was key to longer-term success of curriculum integration. "The schools that seemed to have the best chance of integration the program's benefits into their school's curriculum…were the ones where the principals led

[73] Anthony S. Bryk, John Q. Easton, David Kerbow, Sharon G. Rollow, and Penny A. Sebring, *A View from the Elementary Schools: The State of Reform in Chicago* (Chicago: Steering Committee Consortium on Chicago School Research, July 1993), 36.

the way and where gardens were a project of the whole school," they wrote in an evaluation of the program.[74] They began to do this in small steps. In 1994, instead of spreading the program to sixteen schools each year, the program now included two third grade teachers each at eight schools. A concentration of resources gave teachers more support within their own buildings, but it also facilitated Vear's work by eliminating half the necessary site visits. In the past, much like Green Chicago staff, Vear had been required to drive across the city to sixteen schools each month to deliver programming. This system halved his transportation investment, consolidating the number of sites to half their previous number. This idea was taken further the following year when CORE's efforts were concentrated in three schools.[75]

The concentration of resources was also enabled by a major shift in the function of the CORE program. In 1994, the program rolled out curricula for both first and fifth grade students intended to compliment the third-grade program within one school building. The third grade curriculum continued to focus on plant life cycles and the structure and function of plants, while the first grade curriculum introduced teachers and children to plants through children's literature, for example *Blueberries for Sal*.[76] The fifth grade curriculum took students on voyages to the rainforest, where they explored plant propagation, and to space, where they hoped to grow plants to help colonize the

[74] Fischer and Iris Kreg and Associates, Inc., "Evaluation of the Chicago Botanic Garden Collaborative OutReach Education (CORE) Program."
[75] Fischer and Iris Kreg and Associates, Inc., "Evaluation of the Chicago Botanic Garden Collaborative OutReach Education (CORE) Program."
[76] Fischer and Iris Kreg and Associates, Inc., "Evaluation of the Chicago Botanic Garden Collaborative OutReach Education (CORE) Program." "Polk Bros. Foundation Grant Application," March 31, 1995, Folder 3: Outreach Programs: C.O.R.E. 1995, Box 1016B, CHS.

moon. Now, six teachers each within three schools would participate in the program each year.[77] The intended result would be two-fold. First, teachers would have a larger support network and local cohort, facilitating the continuation of the program over more than one year. Second, students, who participated in this program over the entire course of their elementary education, would have the lessons they learned about plants reinforced. Of course, these are idealized situations because students and teachers often did not stay in the same school building year-to-year.

These new curricular interventions also incorporated many best-practices in science education, especially interdisciplinary integration. Designed by Anne Reichel, Supervisor of Teacher Services at CBG, the curriculum was significantly more rigorous and of higher production level. The new advanced (fifth and sixth) grade curriculum offers a good example. Two four- to five-week investigations guided students through the scientific process—a set of steps that were not the same as the "cookbook" scientific method, though they ran parallel to them. According to the curriculum's teacher guide, "the process of science including observing, questioning, hypothesizing, designing, inferring and communicating are the focus [of the program]." Students were to engage in an educational inquiry process that was state of the art.

The teacher's guide was written so as to be carried out by a classroom teacher—one with limited science-teaching preparation but autonomy. It demonstrated how the teacher could provide investigative questions to students and emphasized the use of controlled experiments. Students were asked to design a "fair test" where only one

[77] Fischer and Iris Kreg and Associates, Inc., "Evaluation of the Chicago Botanic Garden Collaborative OutReach Education (CORE) Program."

variable was being changed—in professional terms, to develop an experimental design with only one independent variable. Further, the curriculum spoke to the critical needs a teacher might have in her or his classroom, particularly the need to tie science into the rest (and more mandatory sections) of the curriculum through writing activities and to assess student learning.[78] In first grade, books with science and plant themes also tied into required language arts teaching time. In fifth grade, the rainforest inquiry was wrapped in a narrative context with a fictional protagonist—Dr. Charles Kent Quigley, rainforest ethnobotanist—who wanted to propagate a plant with medicinal value about to become extinct in the wild. Their inquiry had a practical goal. Students were to help him figure out which plant growing mix will be best for Quigley's cuttings.[79]

Once again, these curricular developments were responsive to broader discussions about the most effective ways to educate children in math and science. As indicated above, using the environment as a context for learning has been demonstrated as an effective way of increasing achievement for all students.[80] However, environmental context is not the only broader context that has been successful. In fact, as early as 1989, a Carnegie Task Force on education determined that hands-on instruction, real-world problems, focusing on teamwork rather than competition, and integrating science with multiple subject areas all improved science and math achievement for all students, and in particular, girls and students of color.[81] The incorporation of Dr. Quigley and

[78] Chicago Botanic Garden, "Classroom Gardens: How Can You Plant a Garden," n.d., JV.
[79] Chicago Horticultural Society, "Rainforest Rescue: Adventures of Quigley," n.d., JV.
[80] Liberman and Hoody, *Executive Summary*, 6.
[81] Jacquelynne Eccles, "User-Friendly Science and Mathematics: Can it Interest Girls and Minorities in Breaking through the Middle School Wall?" in D. Johnson, *Minorities and Girls in School: Effects on Achievement and Performance* (Thousand Oaks, CA: Sage

Blueberries for Sal into the CORE curriculum marks a shift in the program toward integration with the broader curriculum, just as EEAP had attempted from its outset.

The 1989 Carnegie Task Force also determined that the best way to improve achievement in math and science was to connect schools to communities and work with scientists to make science exciting.[82] While the CORE educators were not scientists themselves, as special guests and representatives of CBG as a scientific institution, their presence in the classroom did bring enthusiasm to the project of science learning. Increasingly, and especially through the use of school-community gardens, which were visible to and involved parents, neighbors, and other school members, CORE leaders sought ways to connect the program to the community, a striking change to a program that had initially been praised for its actions to take children to the botanic garden and away from the stress of their home communities.

Putting these gardening plans into practice, CORE and Green Chicago, CBG's community gardening program, collaborated on community gardens at schools in 1995 as a program called GreenCORE.[83] This shift was also precipitated in part by the exit of Vear and by new grant funding for the program by the Field Foundation of Illinois, whose giving was focused in the area of education, community welfare, and urban affairs.

publications, 1997), 89. Task Force on Education of Young Adolescents, *Turning Points: Preparing American Youth for the 21st Century* (Washington, DC: Carnegie Council on Adolescent Development, 1989). Task Force on Women, Minorities, and the Handicapped in Science and Technology, *Changing America: The New Face of Science and Engineering, Interim Report* (Washington, DC: Task Force on Women, Minorities, and the Handicapped in Science and Technology, 1988).

[82] Eccles, "User-Friendly Science and Mathematics: Can it Interest Girls and Minorities in Breaking through the Middle School Wall?" 89.

[83] "Field Foundation of Illinois, Grant Information," July 6, 1995, Folder 8: Various Outreach Programs, Box 16C, CHS.

The grant to the Field Foundation explained the GreenCORE shift specifically:

> "GreenCORE will bring the work of these two programs [CORE and Green Chicago] together in a unique initiative that combines community greening with a 'living laboratory' for the participating schools. Although CORE is a 'state-of-the-art' program teaching inquiry-based science, it has not linked the three components of successful student education: schools, parents, and the community. By building a community garden at a CORE site the Garden can have a stronger educational impact in the classroom."[84]

Here, they were clearly referencing educational research that demonstrated the importance of community involvement and responsiveness in educational success. They were also finally incorporating the wisdom of the seven-year-old Chicago School Reform Act.

Community was also considered as schools were chosen for the program. All three of the first crop of GreenCORE elementary schools had previous relationships with the Chicago Botanic Garden. Brownell already had a vegetable garden on site, developed by Green Chicago and tended by students, staff, and community residents.[85] Gale and Pirie had previously been CORE schools in 1990 and 1992, respectively. All three were schools where CBG had confidence that the program could be successful, especially that there was enough community support for the garden to continue after GreenCORE's one year of intense support. Despite this selectivity, the presence of Gale among Chicago School Garden Initiative sites four years later suggests they were not entirely successful.

This reflects a few realities about the GreenCORE program. While school gardens seemed to be an important way to improve students' involvement in science

[84] "Field Foundation of Illinois, Grant Information."
[85] "Green Chicago Update: Program Turns 10!" *Green Connection* (April 1992), Folder 7: Urban Horticulture Department Files, Newsletter, "Green Connection," 1992-1994, Box 1016B, CHS.

learning, they were a logistical challenge at schools. As early as 1990, community horticulture staff at the botanic garden had determined that school gardens faced more challenges than successes. It was difficult to squeeze in time during the school day for students to participate in gardening activities between other mandated parts of the curriculum. Making this happen required administrative and teacher support, much like the CORE program. Then, there was the problem of summer vacation. As soon as enough excitement and atmospheric heat was built up in the spring to plant a new garden, everyone would pack up for the summer, leaving the plants unequipped to fend for themselves for a few months.[86] This continued to be an issue identified by external reviewers throughout the School Garden Initiative program that replaced CORE and one that the program's final published guidebook treated in multiple places.[87]

External reports for CORE also indicated that while teachers praised the CORE program and its training, educational reformers were skeptical about its ability to create long-term change. Even though teachers enjoyed the program, many did not change the amount of time they dedicated to science in the classroom, neglecting to teach the parts of the CORE curriculum designed for them rather than the guest educator. Experts in school reform were even less optimistic about the program's ability to inspire teachers to continue with the program in subsequent years. CORE staff were similarly concerned by the lack of commitment by classroom teachers, not all of whom could make time to attend the summer gardening portion of the program. Critically, funders were

[86] "Green Chicago," Folder 5: Urban Horticulture Programs 1987-1993, Box 1014, CHS.
[87] Katherine Johnson and Marti Ross Bjornson, *The Chicago School Garden Initiative: A Collaborative Model for Developing School Gardens that Work* (Glencoe, Illinois: Chicago Botanic Garden, 2003), 47, 71.

increasingly skeptical of one-year training and implementation programs and were becoming less likely to fund them.[88] Prompted by these mixed reviews, two years in a row of coordinator turnover, and funding challenges, the CORE program ended in 1997.

The CORE program did, however, spawn another program in partnership with the city that targeted the same schools and student populations. Building on the *CitySpace Plan* and calls for quality open space in Chicago from Mayor Richard J. Daley, the CBG was just one of many founding members of the Chicago School Garden Initiative (SGI). The *CitySpace Plan* explained, "Though many of Chicago's underserved community areas have no vacant land suitable for open space development, they all possess centrally located schools surrounded by grounds that offer potential for open space."[89] Following a pilot program at seven Chicago schools during the 1995-1996 school year, Daley dramatically expanded the program, setting a goal of creating one hundred school parks over the next four years as part of the School Garden Initiative. The program would select schools based on each community's need for parkland, the development suitability of school grounds, the commitment of local communities, and the potential for partnerships with other public and private organizations in the neighborhood.[90] The money to support this project drastically shifted the programming of urban horticulture and education staff at the Chicago Botanic Garden. Together with the Chicago Park District, the Chicago Public Schools, the City of Chicago Department of Planning and

[88] Fischer and Iris Kreg and Associates, Inc., "Evaluation of the Chicago Botanic Garden Collaborative OutReach Education (CORE) Program."
[89] *CitySpace: An Open Space Plan for Chicago* (Chicago: City of Chicago, 1998), 47, accessed October 8, 2019. https://www.cityofchicago.org/city/en/depts/dcd/supp_info/cityspace_plan.html
[90] *CitySpace: An Open Space Plan for Chicago*, 47.

Development, the Garfield Park Conservatory Alliance, and the Openlands Project, CBG initiated the SGI in 1997. Unlike CORE, SGI's main focus was the implementation and support of gardens at physical school sites.[91]

Within the inter-institutional partnership, CBG occupied a number of leadership roles, utilizing their expertise in plant production, education, and non-profit management. CBG was the primary provider of teacher education and curriculum training, garden creation, and philanthropic development. While, they originally assisted the Openlands Project in its role of outreach to neighborhoods, CBG later adopted that responsibility after the Openlands Project pulled out of the collaboration. They also functioned as the leading partner and local and marketing face of the program's educational model.[92] Other partners orchestrated connections within schools, hosted the program's teacher trainings, and provided municipal financial support.

The School Garden Initiative's overall goal was the creation of physical gardens spaces at elementary schools, and its methodological emphasis was on community development, suggesting a pathway for summer sustainability. Organizers believed local leadership by school officials, parents, and other community members together would sustain these gardens in the long term. Additional support would come from the networked expertise of the multiple project sites. Interestingly though, while community development was the method, science was the goal, much as it had been in CORE. These gardens were to be used as "living laboratories" for science classes (and, if useful, for

[91] "Chicago School Garden Initiative and Neighborhood Gardens Program Map and List of Participants," n.d., Folder 6: Chicago School Garden Initiative, Box 32A, CHS.
[92] Johnson and Bjornson, *The School Garden Initiative*, 11-13, 60.

related academic pursuits).[93] This time, there was even a nod to environmental stewardship skills that would be adopted by students, enumerated as one part of the last goal in a long list of intended program outcomes.[94] SGI staff worked to make these goals a reality by using a participatory process to design and construct a garden at each site, training teachers, developing and implementing a plan for garden maintenance year-around, and "creating networking opportunities for continuing education."[95] CBG also continued to enhance the training provided to these teachers. It was expanded into a two-year system with additional workshop training on topics teachers found engaging, like the cultural history of tea and corn. In between these classes, teachers received and could contribute to the initiative's newsletter, *Green Teacher*, which highlighted successful garden activities for the classroom described by fellow teachers.[96] Still, the program struggled in ways that paralleled the tensions that led to the elimination of the CORE program a few years earlier, namely through a lack of ongoing success at gardens they helped begin because of inconsistent support and lack of measurable impacts. Once again, inadequately sustained engagement, despite the extant positive experiences of local educators with the concept, limited the program.

Refining a Curriculum with the Chicago Wilderness in Mind

Meanwhile, the development of EEAP was marked by far fewer external struggles with implementation, funding, or community buy-in. In contrast to CORE, the program's

93 Johnson and Bjornson, *The School Garden Initiative*, 5.
94 Johnson and Bjornson, *The School Garden Initiative*, 5.
95 Johnson and Bjornson, *The School Garden Initiative*, 5.
96 Johnson and Bjornson, *The School Garden Initiative*, 25-31, 62.

social context was marked by schools recognized as successful, teachers with less test-directed pressure, and initial buy-in from community members more closely associated to the schools. Program staff also had a different degree of financial support from CBG itself. In 1991, CBG agreed to fund any revenue gaps between curriculum sales and the operating expenses of the EEAP program, including the salary of a coordinator.[97] This commitment suggests that they intended to make the program self-sufficient through sales, much like the horticultural therapy program. In the meantime, CBG staff applied broadly to grants to close any gaps with something other than general operating funds.

With the assurances of external recognition of the program's quality, EEAP modifications turned to expansion rather than reorganization. In 1991, the EEAP program was expanded to elementary schools in the Evanston/Skokie School District. Still a much wealthier area than Chicago, the average household income in Evanston and Skokie was close to half that of their northern neighbors who had workshopped the EEAP curriculum first.[98] The cities were also far more diverse, with less than sixty percent of residents being white. This was clearly a step toward testing the curriculum in a more average school district, but EEAP remained a long way from the Chicago Public Schools, culturally, if not geographically.

After a review of the curriculum in 1994, there were some changes to the program's delivery. Increasing the amount of instructional time in each classroom was

[97] In comparison, the Field Museum in Chicago began its Environmental and Conservation Programs (ECP) in 1995. See: "Field Museum 1998 Annual Report to the Board of Trustees," 21, accessed September 30, 2019, https://www.fieldmuseum.org/sites/default/files/annual_report1998_0.pdf

[98] "Program Application for a collaborative with The Junior League of Evanston-North Shore, Inc," Folder 1: Outreach Programs 1987-96, CPRE and EEAP, Box 1016B, CHS.

one adaptation, but most program modification came in places that did not intersect with students directly. The summer teaching workshop became mandatory and was expanded from nine to twenty-four hours in a program that could be applied toward graduate credits. The application process for the program became more selective and required schools to demonstrate existing commitment to environmental education and the support of administrators. This choice, designed to limit the program to schools where it was most likely to be successful, however, limited the expansion of programming to schools that were already situationally enabled.[99]

The program also added a new environmental teacher network component beginning in 1994. Teachers who had previously participated in EEAP and received its training became recipients of stipends in exchange for advertising the curriculum, distributing program newsletters, consulting on program development, and generally acting as liaisons between teachers and the garden. In 1995, the program was expanded to include teachers from twenty-three previously participating schools with the goal of having at least one from each who could act as a liaison with EEAP staff to help sustain these programs. The teacher network also offered ongoing support through professional development workshops for all previous EEAP teachers. Through these networks, CBG offered to support garden development at these schools, though unlike the urban school vegetable gardens, EEAP gardens were comprised of low-maintenance prairie plants.[100] For CBG, this liaison program had two primary goals: to advertise the EEAP program

[99] "Letter About EEAP on Progress of Program, Including 1995 Annual Report," March 18, 1996, Folder 1: Outreach Programs 1987-96, CPRE and EEAP, Box 1016B, CHS.
[100] "Letter About EEAP on Progress of Program."

more widely (and therefore to increase revenues from its sale) and to support the sustainable function of the EEAP program within partnering schools.

As education department staff evaluated the EEAP program, EEAP staff were most interested in how well the teachers liked the program because they were trying to develop a program that would sell. These sales would both make the program financially self-sufficient, which was important to its maintenance at CBG, especially after the garden had agreed to self-fund the project as necessary, but they would also enable the program to have a much wider impact. With content that centered on the biomes of Illinois but also of much of the Midwest, the program did have a wide potential market.

A key supporter of the EEAP program became Chicago Wilderness. Chicago Wilderness, founded in 1994 with CBG among its initial members, was initially a collaborative organization with non-profit members devoted to "protect and restore high-quality remnants of prairie and savanna ecosystems of the central Midwest" across the four-state Chicago region around the southern shore of Lake Michigan (Wisconsin, Illinois, Indiana, and Michigan). Its focus was the area around Chicago because it actually had the highest concentration of preserved prairie land across all of Illinois.[101] Like the support of local garden clubs and the Junior Club of Evanston, Chicago Wilderness' support, primarily in the form of publicity, demonstrated popular approval of the program. Chicago Wilderness recognized that the EEAP program was unlike any other program offered by its member organizations, thereby cementing its status.

[101] "Chicago Wilderness Bioreserve Strategic Plan, Draft," 1994, Folder 7: Chicago Wilderness Strategic Plan, Box 17B, CHS, 21.

Chicago Wilderness' mission later expanded to include all natural areas in the region. In 1998, it funded a project intended to show children the value of three different Illinois ecosystems, a logical outlay of resources intended to build a constituency for natural areas restoration and sustainable development.[102] CBG's environmental education initiative then, had a much broader base of support from community organizations. Ultimately, however, Chicago Wilderness' support of EEAP led to the program's demise. In 1998, CBG worked with The Nature Conservancy of Illinois and Chicago Wilderness funding to create the Biodiversity Education Through Action (BETA) program, much of which was based on the EEAP curriculum.[103] The Nature Conservancy of Illinois brought their own experience with a similar environmental education program, called Mighty Acorns, that served students in fourth, fifth, and sixth grades with the same biome structure. The program had a slightly different focus however, getting students involved directly in stewardship. Students from the Hubbard Woods School in Winnetka, for example raised nearly $3,000 to support the purchase of prairie lands in central Illinois after participating in the program which took them to a natural area in Cook County.[104] The Biodiversity Education Through Action program

[102] Kris Jarantoski, "Chicago Wilderness," *Green Connection* (August/September 1996), Folder 8: Urban Horticulture Department Files, Newsletter, "Green Connection," 1994-1996, Box 1014, CHS. Despite the innovative contribution that CBG's environmental education program was making to prepare a next generation of conservationists in the Chicago area, Kris Jarantoski, second-in-command at CBG and the leading horticulturalist at the garden (Carr, the director, had expertise in fundraising not plants), believed that the Garden's most important role in Chicago Wilderness were its new initiatives in plant conservation research. "Chicago Wilderness Bioreserve Strategic Plan, Draft," 46.
[103] "Kids Gain Environmental Awareness," May 1998, Folder 1: Outreach Programs 1987-96, CPRE and EEAP, Box 1016B, CHS.
[104] "Winnetka School Children Raise $2,800 for Nachusa Grasslands," *Prairie Smoke: Nachusa Grasslands Newsletter* 26 (January 15, 1996).

continued as a partnership with funding from Chicago Wilderness through at least 1999 but ultimately folded, with the Nature Conservancy returning to their Mighty Acorns curriculum, and CBG leaving environmental education in the schools behind.[105] In the meantime, it had created a regionally-relevant curriculum that was pursued by like-minded institutions across the Midwest.[106]

Conclusion

By the mid-1990s, EEAP and CORE had a lot in common. Both were managed, after all, by the same group educators, at the same botanic garden, in the same metropolitan area. They were both science-based curriculums implemented in the upper grades of elementary schools. They were responsive to the latest research in science education related to the integration of science with other parts of the curriculum, which was due, at least in part, to the strong interest of program administrators in curriculum best-practices. For both CORE and EEAP, the most direct and ongoing feedback CBG staff received was from teachers, and so, the programs were shaped with this audience in mind, with increasingly detailed training workshops and easier to use lessons.

A critical difference between the two programs, however, was their perceived levels of success. While both ultimately ended for reasons related to funding, in the meantime, EEAP had been deemed a success. Adjustments to the program were

https://www.nachusagrasslands.org/uploads/5/8/4/6/58466593/prairiesmoke_1996jan_web.pdf.

[105] Robert L. Carter, "Curriculum Vitae," accessed September 26, 2019, https://www.cedu.niu.edu/~carter/about/carter_cv.pdf.

[106] Namely, the University of Minnesota Landscape Arboretum still has the EEAP curriculum in their education resource library.

primarily refinements that would make it more salable and expansion into more schools. In contrast, even when the CORE program received positive reviews from teachers, education experts were skeptical about its long-term impact and ability to achieve its goals. As a result, every few years the CORE program received major structural attention, with curriculum re-writes, the addition of school garden projects, and grade-level adjustments. CORE received far more publicity in the newspaper than EEAP, shedding a positive light on their community involvement, but among garden staff, there was far less certainty about impact.

The underlying cause of these discrepancies was a difference in relationship between the botanic garden and the communities being served by the EEAP and CORE programs. In fact, the dichotomy of the two programs illustrates the concept of community horticulture well, though neither of them fit neatly in its definition. The Environmental Education in Action Program was not a true community horticulture program because its focus was environmental science, not horticulture. As a community program, it was a model. A community group approached the garden for help with a local project. Staff at the garden agreed to share their expertise, and the two groups partnered to develop the program and its goals. Then, the program was implemented on an on-going basis with community support in the form of financial contributions and volunteer hours. Ultimately, the goal was for the program to be self-sustaining in the community without the intervention of CBG staff, and this seems to have been the case.

Patricia Healy even imported the program to the Delray Beach, Florida schools with the help of her garden club there in 1995.[107]

In contrast, the CORE program was clearly a horticulture program with plant science and practical, hands-on gardening, but its connection to its broader community was tenuous at best. The program was created with the best of intentions and with significant investment from the Chicago-area individuals and organizations, but it was one group of Chicagoans helping another. Said another way, the Collaborative OutReach Education program was aptly named; it was outreach, not community horticulture. Those with monetary capital and intellectual capital offered their services for the improvement of others, but they fell short of the ideal of community integration—an ideal not only in the community horticulture world but also a method of demonstrated effectiveness for reducing the achievement gap in schools.[108] CBG did this even in the context of a school district that was simultaneously emphasizing community integration as a primary solution to educational gaps. Certainly, patterning a community partnership in the poorest neighborhoods in Chicago on the EEAP program directly would not be possible for the simple reason that residents, by and large, could not afford to self-fund the program. Nonetheless, the Green Chicago program and subsequent projects by the Chicago Botanic Garden have demonstrated that community horticulture without community funding is possible and that interest in the environment was real among urban residents.

[107] Neil Santaniello, "Group Refines Wetlands Guide Booklet, Will Give Sixth-Graders an Environmental Lesson," *Sun Sentinel*, February 4, 1995. "Patricia Kelly Healy," *Chicago Tribune,* June 3, 2008.
[108] "Field Foundation of Illinois, Grant Information."

Conclusion

Community horticulture reflects a fundamental restructuring of the purpose of botanic gardens in the last third of the twentieth century. The concept of community horticulture, that is the sharing of resources and co-creation of horticultural projects among community members and botanic gardens, represents a shift in garden professionals' self-understanding of these public institutions' purposes in society. Much like Rader and Cain documented in their book on changes in museum practices at natural history museums, community horticulture was one aspect of botanic gardens' increased attention to community interests and engagement, moving beyond a garden as a reservoir for respite and knowledge to a co-created community-serving institution.[1] Understanding what community horticulture was in the context of the Chicago Botanic Garden over the past sixty years offers insight into a broader shift in museums. Centering it also emphasizes the relational nature of an institution's ongoing self-creation.

First and foremost, a community, in the garden or elsewhere, is based on relationships. Relationships were in the forefront throughout Green Chicago's efforts to develop community-led and sustained gardens. In order to be selected for the program, gardeners had to identify a group at least eight supporters who were all committed to the garden project.[2] One person could not be successful alone. Once a group was selected, Rebecca Severson required participants to work together to develop a garden's name, its

[1] Karen Rader and Victoria Cain, *Life on Display: Revolutionizing U.S. Museums of Science and Natural History in the Twentieth Century* (Chicago: University of Chicago Press, 2014).
[2] Rebecca Severson, "Green Chicago Helps 'Green' Chicago," *Garden Talk* 3, no. 7 (July 1988), Folder: Portfolio-Hist. Green Chicago, RS.

priorities, its layout, and its rules.[3] Then, she facilitated ongoing relationships among the gardeners to make the project successful in the longer-term, including developing a leadership structure and implementing methods of conflict resolution in the garden.[4] Sr. Cecilia Fandel enacted one such system in her Green Chicago garden, with an appointed board of adjudicators to deal with issues big and small in the garden, such as perceived overuse of the water supply.[5] All of these actions reflected the reality that people collectively made up a community garden, and individual relationships were the connecting tissue that made each garden organization able to function.

Critically, relationships between community members and the institutional garden were as important as those among the gardeners themselves. Realizing this, Severson built up her relationship and defined an ethos with community members across Chicago over time. In her first year leading Green Chicago, Severson focused her inaugural project in Rogers Park, where she was already a resident and was well-connected to activists in the neighborhood through personal collaboration.[6] As she expanded her program geographically, she published helpful columns in local newspapers and spoke regularly on the radio, providing high-quality information to residents without asking for anything in return.[7] As a result, people were aware of her expertise and availability and

[3] Rebecca Severson, "Chicago Botanic Garden Helps Ease Nationwide Garden Crunch," *Garden Talk* (September 1983), Folder: Portfolio-Hist. Green Chicago, RS.
[4] "Tiptoe through the Turnips," *Green Connection*, Summer 1985, Folder 4: Urban Horticulture Department Files, Newsletter, Box 1014, CHS.
[5] Sister Cecilia Fandel, interviewed by Reba Luiken, June 28, 2018 in Ladysmith, Wisconsin, 14-15.
[6] Patrick Barry, "Green is Color of Her Dreams for Chicago," *Chicago Sun Times*, July 16, 1982, Folder: Portfolio-Hist. Green Chicago, RS.
[7] Rebecca Severson, interviewed by Reba Luiken, August 24, 2018 in Evanston, Illinois, 8.

could choose to form a deeper relationship with her and the garden if they wanted help. This program of publication also allowed Severson to reach far more gardeners than she could in her four-garden-a-year program.

Within the CBG setting, there were numerous managerial and funding relationships that that impacted community relationships indirectly. Eugene Rothert's different levels of involvement in various programs within the urban horticulture department illustrates this layered complexity. In the horticultural therapy program, Rothert was both a supervisor and an enactor at program sites. As a result, he was synchronously working to make programming relevant to the needs and interests of his clients while also developing a program in line with the goals of his funders. This was not the case with the Gardening Resources On Wheels (GROW) program, where Rothert's interest in reproducibility of projects came into frequent conflict with Cliff Zenor's on-the-ground interest in responding to the individual needs of community groups.[8] Eventually, the tension on this relationship was so great that Zenor left CBG.

Building on relationships between garden staff and community members required attending to the expressed needs and desires of members of the community. This proved important practical success and required a philosophical outlook that respected those communities. No amount of funding from an interested foundation could overcome a disconnect, as the Collaborative OutReach Education (CORE) program illustrated. Leaders' repeated attempts to refine the curriculum to support the needs of teachers between 1987 and 1995 without achieving a comfortable level of success, pushed the

[8] Cliff Zenor, interviewed by Reba Luiken, August 17, 2018 in Mishawaka, Indiana, 11.

program to community gardens as a way to involve families and community members.[9] While this turn toward the community was supported by research on methods for closing the achievement gap in schools, the CORE program continued with mixed success, as community buy-in remained tepid.[10] Designed with little-to-no input from community members beyond teachers, the CORE program struggled in ways its suburban contemporary, the Environmental Education in Action Program, did not.

In the case of community horticulture, a common understanding of environmental concerns, as seen through the lens of environmental justice, was an essential aspect of the ability of community horticulture projects to meet the expressed needs of participants. In the urban horticulture department at Chicago Botanic Garden, this meant that staff adopted program participants' understandings of the environment as they worked alongside of them. Diverse urban residents were, for the most part, not interested in global or national issues associated with an environmental movement like land preservation or water pollution.[11] Instead, they sought to deal with pressing issues in their neighborhood, many of which had an environmental component. Most frequently, the environmentally adjacent issue addressed by community gardens was the clean-up of refuse that had been dumped on vacant lots in poor neighborhoods. One of a suite of issues facing the mostly poor residents of color that Green Chicago and GROW served, localized pollution was concretely dealt with through the help of community members and Chicago Botanic Garden staff. This had a positive environmental impact, but this

[9] "Field Foundation of Illinois, Grant Information," July 6, 1995, Folder 8: Various Outreach Programs, Box 16C, CHS.
[10] "Green Chicago," Folder 5: Urban Horticulture Programs 1987-1993, Box 1014, CHS.
[11] Severson Oral History, 25. "Field Foundation of Illinois, Grant Information," July 6, 1995, Folder 8: Various Outreach Programs, Box 16C, CHS.

impact was not the central logic behind the project because community members did not put it into that context.[12]

Just as the partners must have a shared understanding, they must also have a shared sense of agency and responsibility as co-creators of a project. A community horticulture project does not work if a botanic garden to comes into a neighborhood to tell a community how to make a garden correctly. While horticultural knowledge was certainly an important aspect of the value CBG brought to a relationship with community gardeners, Severson saw to it that community gardeners were empowered to decide where and how this expertise was applied. For example, while funders of the Green Chicago were primarily interested in community gardens as place to grow food that could supplement diets, Severson often respected community gardeners' interest in growing landscaped spaces that could be used by the entire community, understanding that this acknowledgement of their needs was important to high-quality relationships and a garden's ongoing success.[13] Each garden in the Green Chicago program was tailored to the community by its neighbors rather than following a standard design or set of elements as a result of the active involvement of participants. In a larger sense, these gardeners and gardens collectively shaped the Chicago Botanic Garden conceptually.

Importantly, the physical location of community horticulture projects and their racial and socioeconomic contexts also shaped the physical and relational boundaries of the botanic garden. In many cases, race and distributed geography were important

[12] Rebecca Severson, "Community Gardening Chicago-Style," *New Chicago*, Spring 1983, Folder: Portfolio-Hist. Green Chicago, RS.
[13] Rebecca Severson, "Local Garden Helps Pilsen Bloom," *The Neighborhood Works*, April 1985, Folder: Portfolio-Hist. Green Chicago, RS.

barriers that needed to be navigated in the Chicago Botanic Garden's attempts to undertake successful community horticulture programs. As examined in chapter four, the Chicago Botanic Garden had far more success in creating an elementary science education program in the northern suburbs near the garden than they did with their related urban program. This differential success was due, in part, to the less complicated relationship that the mostly white, middle-class suburban garden employees had with demographically similar suburban funders, residents, and teachers in these schools. However, it is also the case that community members were much more actively involved in the creation of suburban EEAP by virtue of the control they were able to exercise over their community-funded project.[14] In contrast, for the CORE program in the Chicago Public Schools, CBG acted not only as the primary content expert but also as the organization interfacing with outside funders.[15] This difference in collaborative structure was necessitated by stark financial differences between the primarily white suburban and primarily non-white urban contexts that separated these two programs.

These challenges were felt in the horticultural therapy and community gardening programs as well. As he initiated the gardens' horticultural therapy program in nursing homes, Rothert was careful to choose homes spread throughout the city and its suburbs and those with residents of multiple races and religious backgrounds.[16] This approach not only ensured that the program being developed would be transferable to multiple

[14] "Winnetka Garden Club Application for Founders Fund Award of the Garden Club of America for the Environmental Education Awareness Program," 1990, Folder 1: Outreach Programs 1987-96, CPRE and EEAP, Box 1016B, CHS.
[15] "Core Donations," 1995, Folder 3: Outreach Programs: C.O.R.E. 1995, Box 1016B, CHS.
[16] "Report on Nursing Home Grant," March 25, 1981, Folder 6: Chicago Community Trust, Box 20B, CHS.

demographic populations but also act as means of convincing funders about the program's impact. In the GROW program, Zenor emphasized that he was there to do the work and thus assuage the skepticism of participants about his intentions. He knew that the best way to gain gardeners' respect was to be one of the hardest-working participants on the site, rather than by directing other to do all the work.[17] Poor urban residents' initial perception was distrust of CBG staff's intentions, viewed as do-gooding suburban saviors. Zenor and others needed to work proactively to establish a different outlook.

As CBG's ongoing struggles with community horticulture programs have illustrated, relationships with the community were created via a bridge that was not easy to maintain. The method for sustaining connections between the garden and the community remained based in personal relationships developed by staff members, but the nature of these staff members' sources of connection and expertise has changed over time. Virginia Carlson was the leader of the horticultural therapy program in the 1960s at the Chicago Horticultural Society with no formal training in the area.[18] Her primary connection to the community were her two disabled sons. By the time Rothert joined the horticultural therapy staff, there had been a major shift in requirements for the position—now the requirement was at least a horticulture degree, if not some specific medical training. And while Rothert's own life experience as a paraplegic played an ongoing role in his ability to create rapport with community members, the horticultural therapists he subsequently hired provided professional expertise rather than situational relatability.

[17] Zenor Oral History, 16.
[18] Chicago Horticultural Society, *Annual Review 1971/1972*, 12.

Although the relationships that comprised the Chicago Botanic Garden and its community horticulture programs played out primarily on the local scale, they are emblematic of a larger shift in gardens' and museums' institutional self-understanding. In the late nineteenth century, museum directors and curators began to open up access to and reorganize museums so they could more easily reach and teach all members of the public.[19] In the late twentieth century, museums came to realize that these changes could and should go further. Being open on Sundays was not enough to make a museum a welcoming space to all members of the community, and simply providing information was not enough to engage visitors. Instead, John Robert Kinard, founder of the Anacostia Neighborhood Museum, and leaders of community horticulture programs, among many other voices, increasingly argued that museums should play a social role in their communities rather than as simply a reservoir of information.[20] The most recent wave of changes has, in many ways, continued cultural institutions' trend toward co-creation with community members.

One of the most visible manifestations of these shifts has occurred at the executive level of museums and public gardens. These changes are due, in large part, to changing societal expectations of a non-profit's benefit to society, and this has been felt, as changes in leadership have suggested, especially in the public relations and funding realms of institutional function. No longer is a Ph.D. in botany or horticulture the primary qualification required for the director of a botanic garden. As the *Chicago Times* quipped about CBG's new director in 1994, Barbara Whitney Carr, a different kind of

[19] Rader and Cain, *Life on Display*, 9.
[20] Edward P. Alexander, *The Museum in America: Innovators and Pioneers* (Walnut Creek, CA: Altamira Press, 1997), 150-151.

"green-thumb" had become the most prominent aspect of garden leadership—one focused on fundraising rather than flower-raising.[21] It became increasingly important in Chicago and elsewhere to lobby for ongoing funding for the garden, and community horticulture projects were part of this positioning. In 1991, when CBG was facing municipal funding cuts, assistant director Kris Jarantoski suggested that the cuts would directly affect three programs—Green Chicago, horticultural therapy, and CORE.[22] Given that funding from the Forest Preserves of Cook County was required to be spent on ground maintenance, there was not a direct cause and effect relationship between the funding cuts and community horticulture programs, but it was a potentially compelling reminder to the public of their vulnerability.

Internal shifts related to staff roles and responsibilities have been less public, but they indicate that the trend toward community programs has made an impact throughout garden hierarchies and the internal structures of gardens. Most dramatically, between the 1960s and 1980s, urban horticulture work shifted from a philanthropic program administered solely by members of the well-connected and charity-minded women's board to a professional urban horticulture department at the Chicago Botanic Garden. In 1957, the Fragrance Garden for the Blind was enacted by a group of volunteers. During the early 1970s, Virginia Beatty became the first employee dedicated to urban horticulture at the Chicago Horticultural Society. Then, beginning in 1982, a staff of specialists with university level credentials in horticulture began to blossom at the

[21] Jon Hilkevitch and Charles Storch, "New CEO Has a Different Green Thumb: Horticultural Society Chooses Chief with Fundraising Acumen," *Chicago Tribune*, October 13, 1994.
[22] Charles Mount, "1st Step Toward New Hospital Could Begin in '92, Phelan Says," *Chicago Tribune*, December 4, 1991.

garden. These staff members were, increasingly, formally trained in the social aspects of horticultural organizing or horticultural therapy as well.

Robin Simmen, former community horticulturalist at the Brooklyn Botanic Garden, has suggested that the impact of a community horticulture program on her botanic garden was far greater than staff reorganization in one department. The GreenBridge program, founded in 1993, gave everyone, from scientists to horticulturalists to management, more purpose to the work they were doing. Initially the idea of Brooklyn Botanic Garden director Judith Zuk, GreenBridge was intended to respond to a community need for a connection to plants as she, a native New Yorker, saw it. The program brought clarity and connection between staff members and community members in all departments of the garden.[23] This outlook echoed at CBG and botanic garden programs across the country.

While Simmen spoke eloquently about the transformative impact of GreenBridge on the Brooklyn Botanic Garden, the urban horticulture programs at the Chicago Botanic Garden were developed first. By and large, these programs were primarily based on initiatives of organizations other than botanic gardens, often horticultural societies and community gardening organizations that provided general models. CBG had two advantages in this transition as it became an early adopter. Its origin in a horticultural society that had a longer tradition of public, urban programs proved essential, and its youthfulness as an organization with no record in research was liberating.[24] Ultimately,

[23] Robin Simmen, in discussion with Reba Luiken, October 25, 2017.
[24] Brooklyn Botanic Garden, which began its "Making Brooklyn Bloom" conference in 1982 had a different set of advantages, especially a founding ethos of community service since 1910, that supported the develop a robust community horticulture program there, albeit slight later.

CBG would become just one of many community horticulture ambassadors across the country.

While this dissertation has focused on the origins of an increasing community sensibility at the Chicago Botanic Garden in the late twentieth century, community horticulture programs are ongoing at the botanic garden today and its staff continue to refine these ideas. Windy City Harvest, founded in 2006, is CBG's flagship community horticulture brand, which incorporates two main programs, a transitional job corps program for juveniles and adults with criminal records and a youth farm program for high school students.[25] Unlike previous CBG programs, the focus is on training gardeners rather than on creating gardens, and this is in particular contrast to the School Garden Initiative program that brought Windy City Harvests' managers to the garden.[26] Now housed at the state-of-the-art Farm on Ogden in the North Lawndale neighborhood, Windy City Harvest continues to refine its model to meet the needs of the local community and in ways that reflect their connections to previous CBG community horticulture programs. Their VeggieRx program collaborates with their site-owner, North Lawndale Community Health Center, to offer patients prescriptions for healthy food followed by free cooking classes and produce.

It continues to follow other patterns of previous community horticulture programs at CBG as well. Eliza Fournier, its urban youth programs director at Windy City Harvest, for example, illustrates a further transition toward professionalization of the field, with

[25] P.S. Larkin, E. Fournier, and M. Baron, "Not Your Typical School Gardening Program: Developing Skills in Diverse Youth," paper presented at the American Public Gardens Association Conference, Anaheim, California, June 6, 2018.
[26] Eliza Fournier, in discussion with Reba Luiken, August 21, 2018 in Chicago, Illinois.

degrees in both horticulture and urban management. She has continued to respect the interests and perceived needs of the local community, setting aside her own training and interest in ornamental horticulture for a program that focuses on produce because that is where participants' interests lie.[27] The result is that the influence of the community horticulture programs discussed in this dissertation continues to this day, despite the fact that of the programs detailed, only the horticultural therapy program is ongoing.

Discussions in botanic gardens and museums reveal that the shift toward intentional community co-creation is ongoing, complex, and incomplete. In 2019, the American Public Gardens Association featured, "Thrive Together: Diversity Grows Gardens," as its theme, indicating the persistent need to discuss the roles of diversity and collaboration. Nina Simon, with her 2016 book *The Art of Relevance* has emphasized the importance of the relevancy, that is organizing information in a way that adds meaning to the lives of individuals.[28] Community horticulture is one visible move in this direction. Simon suggests that public action is particularly important to developing a public perception that the botanic garden is "delivering on mission," and this in turn increases fundraising ability and financial stability through ongoing support.[29] Museums continue to look for multiple ways to make relevance a reality.[30]

[27] Fournier, in discussion with Reba Luiken.
[28] Nina Simon, *The Art of Relevance* (Santa Cruz, California: Museum 2.0, 2016), 29.
[29] Simon, *The Art of Relevance*, 151.
[30] The Smithsonian's National Museum of African American History and Culture offers an interesting lens into a high-profile attempt at community involvement today, especially in their collection-development practices. Paul Gardullo and Lonnie G. Bunch, III, "Making a Way out of No Way: The National Museum of African American History and Culture," *History Workshop Journal* 84 (Autumn 2017): 248-256.

The Chicago Botanic Garden has been intentional about connecting to its community through relevant and city-based horticulture programs for over forty years. While it has not been the only public garden to initiate and sustain community horticulture programs, it was one of the first and continues to be one of the models in the field. This is due to a confluence of factors, namely its heritage as a horticultural society, the dedication of specific and long-tenured program leaders, and a social-political context that demanded attention to the suburban locus of its garden with an urban response. Through the guidance of passionate leaders, programs for school science, horticultural therapy, and community greening have initiated, fought for, and established community-based horticulture programs that enrich the lives of multiple participants—neighborhoods, volunteers, and staff—across the Chicago metropolitan area and remain an integral part of the botanic garden.

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Interviews

Transcripts and recordings of the interviews listed below will be archived at the Chicago Horticultural Society Archives at the Chicago Botanic Garden.

Douglass, Jamie. Interviewed by Reba Luiken. August 30, 2018.
Fandel, Sister Cecilia. Interviewed by Reba Luiken. June 28, 2018. In Ladysmith, Wisconsin.
Fournier, Eliza. Discussion with Reba Luiken. August 21, 2018. In Chicago, Illinois.
Severson, Rebecca. Interviewed by Reba Luiken. August 24, 2018. In Evanston, Illinois.
Simmen, Robin. Discussion with Reba Luiken. October 25, 2017.
Vear, Jim. Interviewed by Reba Luiken. August 14, 2018. In Glenview, Illinois.
Zenor, Cliff. Interviewed by Reba Luiken. August 17, 2018. In Mishawaka, Indiana.