

# Young Gardeners: On Gardens as Spaces of Experiential Pedagogy

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*Experience has its geographical aspect, its artistic and its literary, its scientific and its historical sides. All studies arise from aspects of the one earth and the one life lived upon it. We do not have a series of stratified earths, one of which is mathematical, another physical, another historical, and so on. We should not be able to live very long in any one taken by itself. We live in a world where all sides are bound together (Dewey 1932, 80).*

## Experiential Pedagogy

A world of experience is bound together by a garden. This encapsulates a garden's astonishing potential as an educational space. As its advocates have contended, gardens and their associated activities offer experiential learning otherwise unattainable in indoor classrooms. It might also explain the enduring appeal of gardens—from the Froebelians in the nineteenth century (followers of the German pedagogue, Froebel), to current environmentalists, real food advocates, and all the educational progressives in between: Montessorians, Waldorfians, and others who have similarly regarded gardens as ideal classrooms of social life. Experience has been at the core of, as well as a justification for, garden education. Recent garden-centred projects promoting the everyday connections between food and health, nature and the environment, the individual and society are laudable for helping to balance the educational experiences and progressively complex lives of young people. The Edible Schoolyard Program at Berkeley's Martin Luther King, Jr. Middle School, and the Ecology and Environment Program at Chicago's Waters Elementary School are just two of numerous programs that have employed gardens to integrate food systems and nature into the curriculum. Sites of garden-centred educational projects (which may include spaces loosely related to gardens such as greenhouses, roof gardens, and fields) embody the qualities of elasticity, flexibility, and interactivity of ornamental and edible gardens. This is the essence of living things that can adapt to changing contexts and fit into different sites, both rural and urban, from schoolyards to abandoned lots, as well as adapting to varied educational objectives beyond the fixity of traditional classroom walls. As such, the question is not whether gardens have educational value (I leave the

debate on the pros and cons of garden education to others) but, rather, how gardens as social, political, productive, and aesthetic spaces help integrate young people into social life. What are the different roles of gardens in shaping the experience of the young gardeners who tend them?

To understand the features that characterize gardens as places for cultivating social consciousness, I have found it useful to consider John Dewey's theories of experience in education towards an integrated life. For Dewey, experience is multifaceted and integrated and cannot be isolated to a single discipline or mode of study. This definition underscored his experiential education, and it was through education that he would develop his ideas on experience, which he presented in three 1898 lectures and published a year later as *The School and Society*. In his lectures, Dewey advocated a "readjustment" of the traditional classroom: "School itself shall be made a genuine form of active community life, instead of a place set apart in which to learn lessons" (1932, 11). His concept of experience can be easily applied to the communal, social, and spatial dimensions of garden activities, allowing us to further understand how effective gardens are for experiential pedagogy.

Education acquired in gardens and other natural environments provides knowledge that otherwise cannot be gained in indoor classrooms. This is an aspect researchers have written extensively about, especially with the rising influence of place-based education, environmentalism, and localism. David W. Orr (1989) explains how children's direct experience with the environment and its natural systems raises ecological literacy, which is increasingly difficult to achieve because there are fewer opportunities for regular access to natural surroundings. As Robin C. Moore contends (1995), by providing daily contact with nature, garden projects help promote familiarity and the interest necessary for paving a path towards a sustainable future. In addition to increasing knowledge in areas of science, Dorothy Blair's quantitative study (2009) also shows an increase in positive attitudes toward food, while her qualitative results indicate positive social and environmental behaviour. Many other researchers have observed the benefits of garden education for young people; for example, they have found that taking part in a botanic garden project improved interdisciplinary, science, and gardening skills (Morgan et al. 2009), and increased interaction with parents and adults as a result of participating in gardening activities (Alexander, North, and Hendren 1995). A study of the Urban Environmental Stewardship Project at a Seattle public school has shown that in an effort to make the surrounding environment more beautiful and healthy, the program has fostered critical observation, cooperative decision-making, and communication skills in the students (Ballard, Tong, and Usher 1998). Indeed, all these positive outcomes have attracted both supporters of the sustainability movement as well as educators because of the exceptional potential of gardens in integrated education. Gardens situate young people in close relation to the environment, community, and society, as well as promoting health and well-being. They also offer unlimited opportunities for hands-on learning and collaborative work, which advocates strongly believe inspire social responsibility and cohesion.

I explore these issues here by suggesting that Dewey's formulation of experience in education is germinal to understanding the use of gardens as spaces of experiential pedagogy. I introduce several garden projects to demonstrate the different modalities of gardens and their implementation within educational programs: the democratic garden, the productive garden, the political garden, and the aesthetic garden. Each of these projects demonstrates the potential of gardens as spaces for learning about society through real-life scenarios. In conclusion, the recent garden-themed exhibit, *I Am Nature*, illustrates a natural convergence of these various modalities. My intention is to highlight a multiplicity of garden-learning experiences through several historical examples from Ontario and Illinois.

Underscoring John Dewey's educational objectives in the series of three lectures that would become his book, *The School and Society*, is the need to reconnect the individual to the community and social life through active participation in social intercourse and production, which, he argued, was dramatically altered by industrial production in the nineteenth century. Dewey writes that to integrate children into society,

...means to make each one of our schools an embryonic community life, active with types of occupations that reflect the life of the larger society and permeated throughout with the spirit of art, history, and science. When the school introduces and trains each child of society into membership within such a little community, saturating him with the spirit of service, and providing him with the instruments of effective self-direction, we shall have the deepest and best guaranty of a larger society which is worthy, lovely, and harmonious (1932, 28).

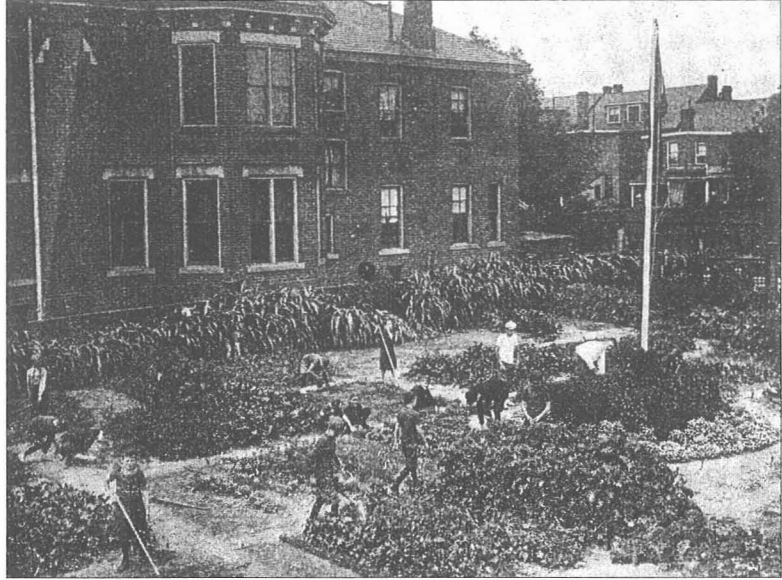
In the same way Dewey characterized school as embryonic of community life, his approach to education is crucial to explaining gardens as potentially democratic and productive centres of society. In essence, gardens are communal, and the work of gardeners (or farmers) is to service society, providing food to nourish citizens and planting for future harvest. While young gardeners learn about where food originates and the dedicated work required to produce it, they have also been active participants at different historical moments in productive gardens, as well as in political gardens where gardeners contributed to war efforts by providing food for the nation. Planting, weeding, digging, and tilling are everyday tasks that also engage with broader aspects of science, art, and design. Lessons on health and disease in humans and in plants, examples from genetics (we may recall lessons on Mendel and his pea pods), and the practical application of garden design principles are just some of the types of knowledge gained from working in productive and aesthetic gardens. What Dewey has offered in his "readjustment" of traditional schools can be found in a garden—an unrestrictive place of experiential learning where children are linked to the larger world of experience.

In "The School and the Life of the Child," Dewey explained how the creative act of making bridged the psychology of the child and the external world, which could be understood as especially heightened in the aesthetic garden, where aspects of spatiality help to develop the skills of the young landscape architect. In his third lecture, titled "Waste in Education," Dewey described organizational problems as stemming from school systems that isolated disciplines and different educational levels, which he expressed in spatial or architectural terms. This is where the traditional school as an enclosed, static, and restrictive space opens up to the possibilities of gardens, where a world of experience can be bound together. Gardens are ideal Deweyan spaces for experiential learning. Whether these involve activities teaching civic responsibility, practical democracy, community activism, or design, they have proven to be fruitful educational spaces engendering participation in political and creative life.

### The Democratic Garden

At the beginning of the twentieth century, individual rights and ownership in relation to the nation state were key lessons in civic engagement and responsibility. The spatial character of gardens lent itself well to learning about this relationship between the self and society. Garden subplots allocated to individual students taught the "idea of ownership" and the "rights of ownership." As L. C.

The Garden City (page 91, *The Agricultural Gazette of Canada*, 1916). Reproduced with the permission of the Minister of Public Works and Government Services Canada, 2010.



Corbett, horticulturalist of the U.S. Department of Agriculture, has explained: "The idea that 'what's mine is my own' becomes very strongly developed, with the natural sequence that such possessions must be properly protected and all rights concerned respected" (1905, 6). Keeping a respectable garden exercised the ability to 'make good' of one's possessions both for oneself and neighbours. As individual subplots were conjoined to form a garden lot, school gardens embodied the essence of community, where individuals were responsible for their own gardens as well as those of other gardeners with whom they cooperated.

At the YMCA on 275 Broadview Avenue in Toronto, young members learned practical civic responsibility and democracy at their "Garden City" which was founded in 1901 by C. J. Atkinson. The Garden City had two lots: one plot situated to the north of the main building measured forty-two-by-thirty-two feet, and the other one, situated on Broadview Avenue, measured twelve-by-thirty-two feet. Further separated into ten-by-ten and ten-by-twelve foot plots, the garden was designed like a miniature city with "streets, parks, avenues and squares, with a circular floral park adorned with flag pole in the centre." With "an elected city council with board of control and various committees," the boys managed the Garden City and the fall fair. They met monthly and on special occasions for lectures on gardening and related topics, and had adopted rules and regulations, governed by thirty directors or "duly elected juvenile aldermen," which included a proposed tax of ten cents per month for a plot of land (non-payment would lead to seizure of property), and a civic duty from "each citizen to do one hour's work each month to help beautify the city" (Canada 1916a, 89-92). Similar gardens that were structured into governmental systems were organized across Canada and the United States, like the one at Weyburn School in Saskatchewan, which "was managed by a municipal council, elected by and from the pupils in the school." In Quebec, at the Qu'Appelle High School, the "parliament had its cabinet with a premier and various officers of state" (Canada 1925, 1193-95).



Boy gardeners at the Garden City (page 91, *The Agricultural Gazette of Canada*, 1916). Reproduced with the permission of the Minister of Public Works and Government Services Canada, 2010.

## The Productive Garden

The rural educational reform movement of the early twentieth century addressed the exodus of rural families migrating to cities by improving rural education. Gardens were used to inspire in "children a liking for things of the soil, to give them a desire to become farmers" (Canada 1916c, 642). In Canada, for instance, the Agricultural Instruction Act of 1913 allocated funds of \$10,000 per province for instruction in Agriculture, Nature Study, Domestic Science, and for keeping school gardens in public, high schools, and normal schools (Canada 1915, 618–23). Indeed, the expense for gardens was only a fraction of the total funding for rural education, but the number of gardens grew exponentially during those years. For example, in Quebec from 1912 to 1915, the number of gardens went from 231 for 6,914 students to 710 for 18,000, a 32% increase. Associated activities such as exhibits at country fairs and student gardeners' clubs helped to promote garden work, demonstrating that "the advantages of the agricultural profession are better appreciated by the rural school pupils" (Canada 1916b, 159–60). Children worked in those gardens and busied themselves at fairs and other events. Ethel H. Ferguson, a teacher at the South Weyburn School in Saskatchewan, explained that her students surveyed, plotted, planted, and tended their garden, and when came September at the garden exhibition, the children won forty-two prizes (Canada 1916b, 167).

Gardening in rural education did not end at school gardens; it reached the students' homes by way of home gardens. Home gardens were extensions of school gardens, where the young gardeners tended their own plots. The Department of Agriculture of Ontario sponsored the Home Garden Contest in 1915, which encouraged participation, especially for "boys who have left the public schools and were unable to take part in the school fair work," and was open to boys between twelve and fifteen years old who had left public school and returned to the farm (Canada 1916c, 643). Involving twenty-five counties in the Province of Ontario, the contest organizers supplied contestants with blueprints of a model garden showing the arrangement of crops, and including directions for preparing

the land, planting, and care. The prescribed garden was twenty-by-thirty feet, containing a range of leafy greens, beans, roots, and fruits. The district representatives acted as judges, inspected the gardens, and granted score cards; the first prize was ten dollars (Canada 1916c, 643-45).

### The Political Garden

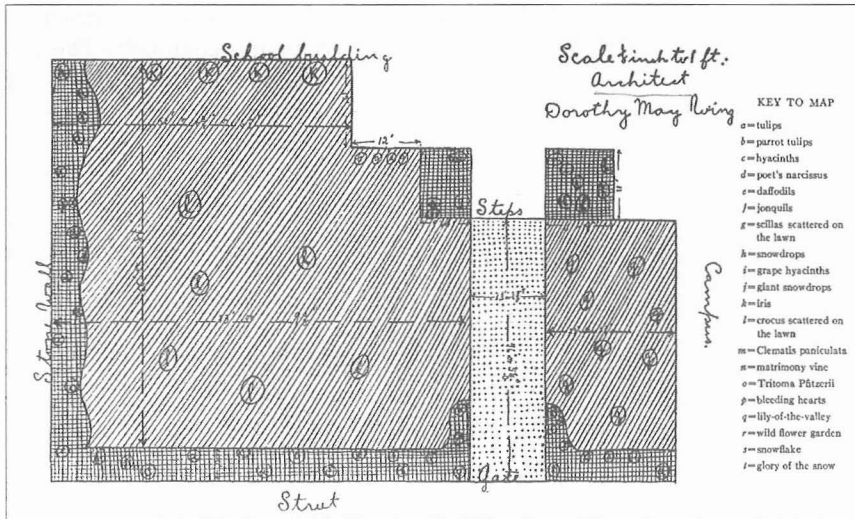
During the war years, children and young people participated as wartime gardeners. As one photograph of a garden and a group of young people holding signs announced in a 1917 issue of *The Agricultural Gazette of Ontario*: "Progress Club, Stay-on-the-Farm, Potatoes for the War Fund." Civilian war efforts resurfaced during the Second World War with victory gardens. In Chicago in the early spring of 1944, for instance, a "live model" of the children's victory garden plot in the Chicago Park district was on display in the lobby of the Peoples Gas Light and Coke Company building, on the west side of Michigan Avenue facing the Art Institute of Chicago. The garden bed was five-by-twelve feet with growing plants, and was built for parents and children to "see what they might expect in the victory garden if they followed instructions carefully" (Heuchling 1944, 105). Marshall Field & Company provided the seeds to support the Victory Garden Project, launched by the Park District in 1943. A large number of children participated, reportedly "14,065 grammar school boys and girls, each growing a separate victory garden plot on the park property" (Heuchling 1944, 106). Of course, those youngsters were not literally fighting the war, but the organizers aimed to encourage gardeners to grow "wholesome vegetables and beautiful flowers," which they hoped would have a lasting influence on the children and the future (Heuchling 1944, 104).

Certainly the harvest of vegetables and fruits helped with the food shortage during the war years. A series of civilian defence classes for families and young people were organized throughout the city of Chicago that offered advice on starting a victory garden (*Chicago Daily Tribune*, March 29, 1942). Mobilizing children and families as civilian defence forces was an urban affair, and one journalist reported that 2,000 acres were awaiting city gardeners (*Chicago Daily Tribune*, March 15, 1942). The Victory Garden committee of the state council of defence published a map as a guide to alert urban gardeners of the smoky districts, polluted with sulphur dioxide harmful to the gardens (*Chicago Daily Tribune*, February 22, 1942). With such events as "Clean up for Victory," "War Against Wastes Day," and "Neighborhood Improvement Day," urban gardening mobilized the city, calling upon civilian children to participate in community improvements (*Chicago Daily Tribune*, April 19, 1942).

### The Aesthetic Garden

The spatial aspects of gardens also allowed children to learn about the process of design. Representing the garden required knowledge of drawing and horticulture, skills that young architects at the Francis W. Parker School in Chicago in 1905 learned in order to design their school garden. Their garden was situated along the school's building, a stone wall and a street, and was a stubby L-shaped lot that measured 66-feet wide and 110-feet long. Given that the American Society of Landscape Architects was founded in 1899, a fourth-grader, Dorothy May, was ahead in her career as a young landscape architect, having produced a technically sophisticated drawing of her school garden drawn at a 1/8 scale, which she proudly signed as "architect." Her drawing included the location of plants, labelled and referenced with a key. Her first plan was "used for individual suggestions as to where the bulbs should be placed." She and her classmates returned "again and again" to the garden to "better judge distances and proximities of color combinations," and they changed the arrangement in the plan "again and again," until the final design. The stu-





Dorothy May's design drawing, 1905.

dents kept detailed records of the flowers, noting "the kinds found, dates and places," which they later transferred onto the back of blueprints (Leubrie 1905, 150). To Elsa Miller, "the making of the plan was the most responsible piece of the work" from the students. It also required a considerable amount of skill to design and execute the garden as well as to act "on the various committees" (1906, 250).

The YMCA boys of the early twentieth century practiced democratic government, while their rural peers learned about agriculture. Wartime children contributed to civilian efforts, while Dorothy May became the landscape architect of her school garden. As these examples demonstrate, the different spatial modalities of gardens enabled young people to be active social agents, developing social consciousness through cooperation and social responsibility.

### The Young Garden Designers

Like their historical predecessors, in 2003 Amundsen High School students engaged with social reality through a creative course dealing with the environment. The exhibit *I Am Nature* opened at Chicago's 1926 Gallery, the culminating event of a course taught by Chicago-based artist and educator Drea Howenstein that explored language, literacy, and leadership as the foundations of sustainable design. Using the city as a classroom, the class visited different green buildings, including the Mayor's model green-roof garden at City Hall. The exhibit was an ideal continuation of the many real life experiences emphasized throughout the course, wherein the Amundsen High School students, along with college-level visual and liberal arts students from the School of the Art Institute of Chicago, displayed their work side-by-side. The most impressive among the many objects and documents exhibited was a model of a roof garden that the Amundsen students designed for their own school building. In designing the rooftop garden to improve their school building's performance in energy conservation, the students examined issues concerning sustainable design, conducted research, and discussed the project with architects and experts who engaged with the class at different moments. They also learned about the design process and

acquired techniques of representation—sketching, dimensioning, drawing, and model making—all of which required collaborative teamwork and verbal and visual communication skills. Through intensive conversations, inquiry, and in applying sophisticated conceptual and manual skills to the creation process, the students participated in the sustainability movement. Other objects on display in the exhibition documented their discoveries of self and place through photographic self-portraits and in a large-scale aerial map where they located their own neighbourhoods. Journals of individual exploration, and records of their research were also on display.

The college students offered their designs in a series of proposals for gardens that they presented. While these were more sophisticated than those of the younger high school students, both groups attained similar learning objectives. In collaborating with college students and sharing the same educational subject and forum, the Amundsen students realized the equal value of their work. It also demystified the advanced work of design students. Lifting the divisions separating the younger and senior students promoted integration, something that Dewey had explored as a way to eliminate isolation within the school system. As for the college students, like their younger peers, they learned aspects of design in their contact with professionals and experts. For instance, American Hydrotech, an international supplier of green roof systems, consulted with the students and shared their knowledge of green technologies. A panel discussion interrogated the question, "What is Nature?", initiating a conversation with the students about sustainable design. Participants included designer Cindy Coleman; Ken Dunn, founder of the Resource Center, a non-profit recycling operation in Chicago; Marcia Jimenez, coordinator of programs to protect Chicago's natural resources; and others.

Another significant aspect of the project was reducing the division between different educational levels, which greatly inspired the Amundsen students, who were culturally diverse and for whom English was their second language. They were able to experience the accessibility of the design profession as well as that of a college education in a context where language barriers were subordinate to their abilities as creative and responsible thinkers and makers. As Dewey pointed out, language is "a social thing," a "means by which we give our experiences to others and get theirs again in return" (1932, 49).

More than a century separates us from Dewey, yet it is equally, if not more, urgent to reconsider his theory of experiential education in light of young people's progressively complex lives. Garden-centred education engenders active participation, socially integrates young people, and inspires a sense of place and agency in a world that alienates them. The social, political, productive, and aesthetic features of gardens make them ideal Deweyan spaces of experiential education, and with their creative incorporation, as we have seen throughout the twentieth and twenty-first centuries, gardens have the potential to inspire young people towards an integrated life.

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