The Arnold Arboretum and the Early Years of Landscape Design Education in America

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It was now gay with carriages in lilac time, and the attendance of students was frequently noted. Every spring and fall, John G. Jack could be seen leading a coterie of teachers and the horticulturally inclined from plant to plant. At times in between, Benjamin M. Watson's horticultural students from the Bussey Institution, or scholars of landscape gardening from Harvard's Lawrence Scientific School or the Massachusetts Institute for Technology, were observed, notebook in hand, pacing up and down the shrub collection rows or scrutinizing a label on the trunk of a healthy specimen tree. — A scene described by Ida Hay in her 1995 history of the Arnold Arboretum, Science in the Pleasure Ground

On July 1, 2002, the thirty-four-year-old Radcliffe Seminars Program in Landscape Design and Landscape Design History became the Arnold Arboretum's first formal program in landscape design. However, in the years between the Arboretum's founding in 1872 and the death in 1927 of its first director, Charles Sprague Sargent, the Arboretum was at the center of efforts to transform the practice of landscape gardening into the profession of landscape architecture.

The Arnold Arboretum's initial involvement in the education of landscape designers was spurred by the interests of Sargent himself. To most people outside the Harvard community (and to many within it), Sargent was the Arboretum: it was his perspective, his personal-

Holm Lea, the estate of Charles Sargent, in 1900, looking across the pond and Sargent's edge plantings to the main house.
ity, and his research interests that defined the institution. Sargent brought to his position an unshakable commitment to the picturesque landscape sensibility as espoused by William Gilpin, Uvedale Price, and Andrew Jackson Downing. Like his colleague Frederick Law Olmsted, Sargent was contemptuous of excessive horticultural display, controlled formal patterning, and showy floriferousness. His commitment had been formed by European travel, by his reading of Downing and others, and by his admiration for the country estates of his cousins Henry Winthrop Sargent and H. H. Hunnewell. During his early years at the Arboretum, Sargent transformed Holm Lea, his own 150-acre estate in Brookline, Massachusetts, into one of the most admired country places in America. He experimented freely at Holm Lea, creating a landscape of open pastoral views framed by groves of native trees, drifts of wildflowers, a bucolic pond with cattle grazing at its edges. In the words of landscape historian Cynthia Zaitzevsky, Sargent was “the last in the great tradition of gentlemen landscape gardeners, at least in this region.” Holm Lea, with all its apparently effortless scenery and its references to the pastoral, was no less manmade than the formal displays in Boston’s Public Garden.

By the 1880s, a growing market in both public park and estate design was pointing to a need for training more American landscape designers. The success of Central Park and Prospect Park in New York had been publicized by many articles and illustrations in popular magazines, and planners in other cities had begun to recognize the need for parks to provide outdoor activities and a healthy environment for their own growing urban populations. At the same time, designers like Frederick Law Olmsted, Samuel Parsons, and Horace Cleveland, writing in literary magazines and journals of public affairs, were articulating a role for landscape designers in the public sphere. As a group they felt a need to assert their special knowledge of land planning, planting schemes, and their advocacy for both scenery and recreation. They felt they had to differentiate themselves from the architects, civil engineers, and horticulturists against whom they were competing for public contracts.

In 1932 Henry Vincent Hubbard, a landscape architect and longtime faculty member in Harvard’s Department of Landscape Architecture (and, in 1901, the program’s first graduate), reflected on the early years of his profession:

In 1880... landscape architecture was beginning to take its rightful place as one of the arts in America, recalling its traditional status of honor in Italy, France, England and Germany, and its still more ancient role in China and Japan. Olmsted and Vaux, drawing inspiration from the legacies of Michaelangelo, LeNôtre, Repton, and Prince Puckler, had departed from the horticultural taste lingering in the works of Andrew Jackson Downing, and had given in the Central Park, New York, and Prospect Park, Brooklyn, a great public object-lesson in the differentiation of the landscape art from horticulture on the one hand and from architecture on the other, as well as from the basic and contributory science of engineering.

The Apprenticeship Period of Landscape Design Education

By 1883 Frederick Law Olmsted had moved his home and office from New York City to Brookline, Massachusetts, in order to deal more efficiently with his firm’s many projects in the Boston area. The Olmsted office quickly became the training ground for a generation of landscape architects that included Charles Eliot, Warren Manning, and the Olmsted sons, Frederick Jr. and John Charles. In 1895, near the end of his professional career and with weakening health, Olmsted concentrated on making his office a disciplined training ground. “We are gradually preparing a grand professional post-graduate school here,” he wrote to his son Frederick Jr. In the absence of academic programs in landscape architecture, a period of apprenticeship, combined with travel and supervised reading, was the only way to enter the profession. Working without pay or for a nominal stipend, apprentices trained with senior designers while providing a substantial service to the firm by taking on the time-consuming tasks of surveying, drafting, and various kinds of fieldwork. Sargent encouraged young men who wanted a career in landscape architecture to join the Olmsted firm for the educational experience. Two of his neph-
ews, Henry Sargent Codman (1864–1893) and his younger brother Philip (1867–1896), joined Olmsted and Company after a rigorous tour of Europe during which their itinerary was closely supervised by their uncle.

Sargent also guided the early training in landscape design of Beatrix Jones (Farrand) (1872–1959). In the early 1890s—a time when few opportunities for formal education were available to women—Ms. Jones became a private student of Sargent, using the Arnold Arboretum as a laboratory for studying horticulture and design.

It seems almost funny to look back on the haphazard way in which we forerunners of the army of women landscape architects got our education. My own work was started at the suggestion of Professor Charles Sprague Sargent of the Arnold Arboretum who, knowing my great interest in plants, suggested that I begin studying them with the idea of later practicing landscape architecture or, as we called it then, landscape gardening. The whole scheme seemed to me so wild that it took some time to appreciate Professor Sargent’s earnestness. Thanks, however, to his kindness and the hospitality of his family, I spent several months working at the Arboretum under his enthusiastic direction and with the benefit of his criticism.

—Letter from Beatrix Farrand to Clarence Fowler, a trustee of the Cambridge School of Architecture and Landscape Architecture, n.d.3

Male practitioners, too, were growing weary of “haphazard” training and looking for ways to elevate their profession to an academic discipline. Jacob Weidenmann, an early partner of Olmsted, then with his own office in Chicago, believed that Sargent should fill the void:

If a learned and scientific man like Sargent wishes, he would succeed in establishing a Public Institute for Landscape gardening and by chance Landscape Architecture would soon have to give way to real qualified talents.

—Letter from Jacob Weidenmann to John Charles Olmsted, December 14, 18873

Garden and Forest: A Journal of Horticulture, Landscape Art and Forestry 1888–1897

Sargent did not set up an academic curriculum at the Arboretum, but he did found Garden and Forest in 1888. While it was not technically an official publication of the Arnold Arboretum, it was perceived as such by the general public and by the Harvard administration. Subtitled “A Journal of Horticulture, Landscape Art and Forestry,” it offered the then (and now) unique perspective that the three fields were inextricably linked. Sargent listed himself as “conductor,” but the editor was William Stiles, an experienced New York journalist with a strong interest in public park design.

The magazine became the voice of the emerging profession. Articles by leading landscape
architects (Frederick Law Olmsted, Charles Eliot, H. W. S. Cleveland, George Kessler, Frank Waugh) began to define the field for an American audience as well as offer new strategies for land stewardship and preservation. Garden and Forest also published carefully crafted essays on landscape gardening by the art critic Marianna Van Rensselaer, later gathered in her book Art Out of Doors (1893). It made recommendations for readings on landscape gardening, described educational opportunities, and discussed the need for qualified practitioners. As landscape architect and historian Ethan Carr has written, “In an era before a professional organization or academic instruction existed in the field of landscape architecture, Garden and Forest took on aspects of both.”

The Arnold Arboretum and Landscape Architecture Studies at Harvard

By the early 1890s, many people were urging that Harvard develop a landscape architecture program, a notion supported by President Charles W. Eliot and by the geologist Nathaniel Shaler, the very popular dean of Harvard's Lawrence Scientific School. Since at that time it was the only department of the University that offered advanced instruction in the physical and natural sciences, the Lawrence Scientific School was the logical home for such a program, and in 1900 Harvard launched the first degree-granting program in landscape architecture in the United States in that school. Frederick Law Olmsted Jr. was named its first director; his appointment honored the legacy of Frederick Law Olmsted Sr. and set a precedent for practitioner/academic faculty appointments that is still followed by landscape architecture programs across the country. The University aligned the landscape architecture program with the newly established program in architecture in the United States in that school. Frederick Law Olmsted Jr. was named its first director; his appointment honored the legacy of Frederick Law Olmsted Sr. and set a precedent for practitioner/academic faculty appointments that is still followed by landscape architecture programs across the country. The University aligned the landscape architecture program with the newly established program in architecture, indicating an expectation of a close collaborative relationship between the fields, a collaboration that drew on science, engineering, and fine art.

The Arnold Arboretum and its allied institution in Jamaica Plain—the Bussey Institution—played integral roles in the new program.

Particular attention will be given to the study of plants both as individuals and as elements of landscaping. In the first year will be given lectures and laboratory work in Botany, supplemented by study of plants and garden-work at the Botanic Garden. The second year includes a course in Horticulture at the Bussey Institution, consisting of lectures, with study and practice in the greenhouses and in the field and garden. In the third and fourth years will be given successive courses on Plants in Relation to Landscape Planting, conducted mainly at the Bussey Institution and the Arnold Arboretum.

—Announcement of the Programme of Courses in Landscape Architecture, Lawrence Scientific School, March 1900.

A one-year graduate program was instituted in 1906 with previous courses in both horticulture, botany, and geography recommended for admittance. Again, the Arnold Arboretum was to be a venue for plant courses.

From the beginning, the Arboretum's collection was of significant pedagogical value to students. The full spectrum of American species would eventually form the backbone of the collection, but the Arboretum focused first on assembling plants native to New England. Since students in the early years of the Harvard program were drawn primarily from the New England region, where they often began their practice, their plant study at the Arboretum was immediately useful to them after graduation.

The Bussey Institution was also well positioned to serve as a resource for the new landscape program. The Bussey was Harvard's experiment in scientific agriculture and husbandry from 1871 to 1908 when it was converted to a graduate school in applied biology. Describing its mission as “not educating farmers' sons in a knowledge of their fathers' trade ... but ... recognizing the high and difficult character of husbandry,” it had been the only Harvard program offering training in horticulture to landscape architects before the design program was established. It was unique at Harvard for allowing women to attend classes from time to time; Benjamin Watson, who taught horticultural classes at the Bussey, was particularly supportive of women students:

Mr. Watson would also like to receive women in his course on Trees and Shrubs, or in the course on general Horticulture. He says that he has one good woman student in Landscape Gardening, and that another woman has applied for the course in gen-
The MIT Program in Landscape Architecture

The Arnold Arboretum had a direct link to the program in landscape architecture at the Massachusetts Institute of Technology (MIT), which began in 1900 and ended in 1908: it was developed by Guy Lowell, who was married to Charles Sargent's daughter Henrietta. The MIT program, one of two options offered to architecture students, was open to both undergraduates and graduates until around 1904 and to graduates only from then until 1908, when the program was discontinued. The importance of the Arboretum's role in the program was clearly outlined in the program description:

A very thorough course in Horticulture at the Arnold Arboretum which is under the direction of Mr. Charles S. Sargent [will be part of the program]. Horticultural and botanical studies in the laboratory and the field will extend through three years, and ample opportunities will be offered not only to learn the habits of trees, shrubs and plants but also to study landscape gardening effects in the park of the Arboretum ... We are fortunate in being able to establish a connection to the Arboretum, which Mr. Sargent's publications have made known throughout the world as a great horticultural station.7

The Arboretum's courses for MIT were taught not by Sargent, who demurred at both formal teaching and lecturing, but by John George Jack (1861–1949), a Quebec native who had joined the Arboretum in 1886 to handle plant records. Because he showed a talent for working with the public, Sargent soon entrusted him with full responsibility for both public and academic education. Jack's lectures and field walks were always well attended and he was eventually given the title of Lecturer.

Unlike Harvard in the early years of its program, MIT admitted several women. The landscape architect Martha Brookes Hutcheson said of her MIT education:

I saw at once that the curriculum did not give nearly enough time to what must be known of the "plant world," the riches in material and easy study obtainable in the nearby Arnold Arboretum were too great to be but half known so, during three summers, I made exhaustive notes there for my card catalog.

—"Three Women in Landscape Architecture"8

Marian C. Coffin also valued her experience at the Arnold Arboretum as an MIT student:

At that time the course given at "Tech" was termed "Landscape Architecture" and was an option in the architectural course and under the guidance of Guy Lowell ... The last year we diverged into purely landscape problems, while during the entire four years, we had engineering problems and attendant mathematics of our own, as well as at least two days a week for study in the Arnold Arboretum and for various trips about Boston to see fine examples of landscape design ... To the splendid training in design we were given, to the three years of such hard work as I fancy few of the schools now insist upon, as well as to the patience and enthusiasm of Prof. Jack who guided our steps through an intensive training in plant material, I feel more than grateful.9
Reminiscing about his Arboretum teaching responsibilities later in life, John Jack speculated that MIT dropped the landscape architecture option in 1908 because MIT was working closely with Harvard to avoid duplication of small, specialty programs. Since Harvard’s program was well financed and thriving, it seemed prudent for MIT to end their involvement in the field.

With Harvard’s program closed to women until the early 1940s, some regretted the closing of MIT’s program, which removed the only option for women in the region. Two independent schools of landscape design in the Boston area filled the gap. The Cambridge School of Architecture and Landscape Architecture was founded in 1916 and based in Harvard Square. Under its director, Henry Atherton Frost, a member of Harvard’s Department of Landscape Architecture, the School offered women a shadow version of the Harvard curriculum. The Lowthorpe School of Landscape Architecture was founded by Judith Motley Low, a descendant of Benjamin Bussey, and based at her country home in Groton, Massachusetts. The program emphasized residential design and offered intensive study of plant form, planting design, and horticultural skills. Students at both schools used the Arboretum extensively to study woody plants both as individual species and in a design context.

Charles Sargent’s death in 1927 coincided with a shift in the landscape architecture curriculum at Harvard to embrace town planning and the rebuilding of cities. Plant studies continued to be part of the curriculum but their value diminished as the scale of projects increased and the sites studied were no longer regional. Students came from many parts of the country with a growing contingent of international students, many leaving the region upon graduation. The Arboretum continued to be a resource for the program with field walks and courses taught by both Arboretum staff and Harvard faculty but, ironically, despite enhanced public transportation and improved roadways, the six-mile distance between Cambridge and Jamaica Plain seemed, at times, an insurmountable barrier.

More significantly, the taxonomic arrangement of the Arboretum, which places plant families together disregarding native growing conditions and plant associations, made the collection less relevant to those studying plants from an ecosystem perspective. Unlike museum collections of paintings, sculpture, or artifacts the Arboretum’s living collections cannot be realigned or portions stored until their unique value is rediscovered by new generations of scholars and students. The Arboretum’s collections of native trees and shrubs in many stages of maturity, its display of rare species from all over the temperate world, and its high curatorial standards for individual specimens remain a unique international resource for plant study.

Many have called the Arboretum’s landscape one of the best-preserved examples of the work of Frederick Law Olmsted. It is now the responsibility of faculty and staff to interpret all of these resources for a new generation of students.

Endnotes
Two recent publications explore the history of landscape architecture at Harvard in great detail:


1 Henry Vincent Hubbard. “Landscape Architecture.” In Fifty Years of Boston: A Memorial Volume Issued in Commemoration of the Tercentenary of 1930 (Boston, 1978), p. 347


3 Jacob Weidenmann to John Charles Olmsted 14 December 1887. Manuscript Collection, Library of Congress


5 Lawrence Scientific School Announcement of a Four Years’ Programme of Courses in Landscape Architecture [March 1900], 4.


7 Massachusetts Institute of Technology. Class of 1894 Decennial Catalogue [June 1904], 35.


9 Ibid., 11.

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Landscape Architect/Landscape Architecture: A Short History of the Terms

The terms used to describe the process and profession of designing the landscape can be confusing. In the late nineteenth century the Anglo-American term landscape gardening evolved into the professional and academic discipline of landscape architecture and took on precise professional and legal boundaries. Landscape design is a designation that continues to transcend disciplinary and professional boundaries and captures the essence of the process.

Contrary to popular opinion, Frederick Law Olmsted did not invent the term landscape architecture nor was he particularly partial to it when it was used by the architect Calvert Vaux, his partner in the design of Central Park.

I am all the time bothered with the miserable nomenclature of L.A. Landscape is not a good word, Architecture is not; the combination is not—Gardening is worse ... The art is not gardening nor is it architecture. What I am doing here in California, especially is neither. It is sylvan art, fine art in distinction from Horticulture, Agriculture, or sylvan useful art ... If you are bound to establish this new art, you don’t want an old name for it. And for clearness, for convenience, for distinctness, you do need half a dozen technical words at least. —Frederick Law Olmsted to Calvert Vaux, 1 August 1865

Olmsted did adopt its use near the end of his professional career as he found no better term to describe his work.

With reference to your undertaking there is less room for choice than may be supposed among the landscape gardeners or landscape architects of the country (I have come to prefer the latter term, tho’ I much objected to it when it was first given to me. I prefer it because it helps to establish the important idea of the distinction of my profession from that of gardening, as that of architecture from building—the distinction of an art of design. —Frederick Law Olmsted to the Board of Parks Commissioners, Rochester, New York, 1888

The use of the term landscape architecture can be traced back at least to early nineteenth-century literature.

1828
Gilbert Laing Meason. The Landscape Architecture of the Great Paintings of Italy (London). One of the first uses of the term by the Scottish writer, a friend of Sir Walter Scott. However, Meason was referring to the appropriateness of buildings in the landscape not the landscape itself: the Roman villa, towers and turrets, picturesque country houses.

1840
John Claudius Loudon, editor. The Landscape Gardening and Landscape Architecture of the Late Humphry Repton (London). This was Loudon’s title for his compilation of the writings of Repton; again, Loudon was referring to buildings in the landscape. Landscape architecture was Loudon’s term, not Repton’s.

1841
Andrew Jackson Downing. A Treatise on the Theory and Practice of Landscape Gardening (London). In Section IX, “Landscape or Rural Architecture,” Downing writes that “architectural beauty must be considered conjointly with the beauty of the landscape or situation ... the harmonious union of buildings and scenery.” But like Loudon, Downing was referring to building style and landscape compatibility.
1858
Frederick Law Olmsted and Calvert Vaux use the term in Central Park documents.

1863
The title landscape architect is used for the first time by the Board of Central Park Commissioners in New York City.

1873
Horace William Shaler Cleveland. *Landscape Architecture as Applied to the Wants of the West* (Chicago):

Landscape Gardening, or more properly Landscape Architecture, is the art of arranging land so as to adapt to it most conveniently, economically and gracefully, to any of the varied wants of civilization . . . The term “landscape architecture” is objectionable, as being only figuratively expressive of the art it is used to designate. I make use of it, under protest, as the readiest means of making myself understood, in the absence of a more appropriate term. If the art is ever developed to the extent I believe to be within its legitimate limits, it will achieve for itself a name worthy of its position.

1899
The American Society of Landscape Architects is formed at a meeting in New York. It was organized to include only professional landscape architects as full members and to exclude nurserymen, contractors, builders, and others engaged in commercial work. The group did allow those calling themselves landscape gardeners, such as Beatrix Farrand, to join.

1910
*Landscape Architecture* magazine is founded by three graduates of Harvard’s landscape architecture program, Robert Wheelright, Charles Downing Lay, and Henry Vincent Hubbard.

1916
Liberty Hyde Bailey attempts to clarify the continuing confusion in terminology in his *Standard Cyclopedia of Horticulture*, Vol. IV.

The art that designs and makes landscapes is known mostly by the name landscape architecture, although there is now a tendency to call it by other names. Landscape gardening is the older term; but this is considered not to be broad enough or bold enough to suggest the large elements of design that form an underlying part of the art.

2003
American Society of Landscape Architects website (www.asla.org) offers this definition of landscape architecture:

Landscape architecture is the art and science of analysis, planning, design, management, preservation and rehabilitation of the land. The scope of the profession includes site planning, garden design, environmental restoration, town or urban planning, park and recreation planning, regional planning, and historic preservation.