Creating a Campus: the 19th Century College Architecture of the Pioneer Valley

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An article in the *Mount Holyoke Alumnae Quarterly* (Winter 1988) states, "Like George Washington who seemed to have slept in every eighteenth-century home in the Colonies, Frederick Law Olmsted, plus his son and associates, appears to have had a hand in the landscape design of just about every large estate, park, and campus during the last part of the nineteenth century and the early years of this century."[1]

In western Massachusetts are four such campuses: Smith, Mount Holyoke, and Amherst colleges, and the University of Massachusetts Amherst, or UMass. All were founded in the 19th century as single-sex educational institutions: Smith and Mount Holyoke are women's colleges, and UMass and Amherst were men's colleges but are now coeducational. Beyond their geographic proximity, Smith, Amherst, and Mount Holyoke shared early personnel in the form of professors from one college acting as trustees or chancellors or presidents for another, leading to intersections in architecture and landscape design among the campuses. The three colleges were all founded privately, and based on a classical education, regardless of the gender of student. The University of Massachusetts, founded under the Morrill Land Grant Act of 1862, is an outlier in both campus design and curriculum.[2] This paper will briefly outline early New England college architecture, followed by the early campus landscape history of each of the four subject colleges, demonstrating the varying influences of the Olmsted firm.

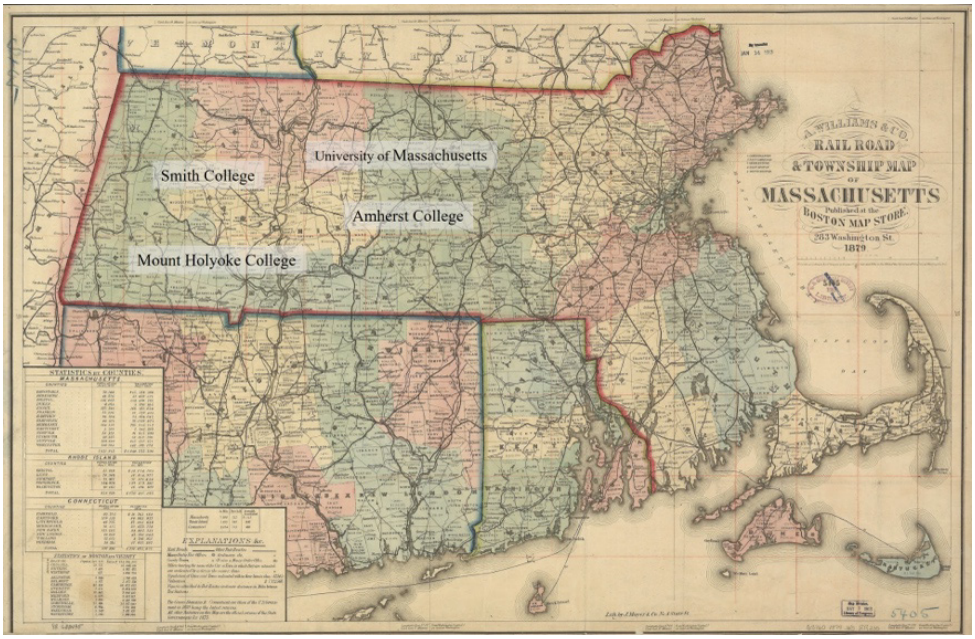

Figure 1.Map of Massachusetts showing location of subject properties (A. Williams & Co., 1879).

[1] Richard P. Doherty and Barbara Perry Lawton, "Mount Holyoke: The Land and the Landscape" *Mount Holyoke Alumnae Quarterly*, Winter 1988.

[2] F.H. Hitchcock, *The Massachusetts Agricultural College: A Descriptive and Historical Sketch,* (Amherst, MA: The Handbook of Amherst, 1891), 161.

When colleges were first organized in the Massachusetts Bay Colony and its neighboring colonies, the institutions reflected aspects of English colleges, such as Oxford and Cambridge. The English institutions typically consisted of interconnected buildings housing classrooms, dining, and sleeping spaces, forming an enclosed quadrangle. Smaller institutions for men and women had classrooms, dining, and sleeping spaces housed in single buildings, and students might attend religious services in the surrounding town. Harvard and Yale, the earliest colleges established New England, made use of some aspects of English colleges, such as Oxford and Cambridge. The first buildings constructed at Yale were arranged in a single row along the west edge of the campus, a form later called the "Yale Row."[3] Harvard initially consisted of a single building which housed classrooms, dormitory spaces, and dining spaces, and students attended religious services with residents of the town.

There was a third campus design as well: the cottage system, with Frederick Law Olmsted Sr. as its greatest champion. Olmsted promoted the idea that campuses should be like small New England villages, irregular and picturesque arrangements of buildings in a natural setting.[4] His adoption of the cottage plan as the ideal for college campuses addressed his principal concerns when it came to campus planning: the need for an appropriate site plan with room for growth, the relationship of the campus to the community in which it was situated, and attention to the scale and design of buildings.[5]

The architectural design of the buildings situated within these (mostly) carefully created landscapes typically reflected popular styles of the time the buildings were constructed.[6] The Greek Revival style, prevalent on the Amherst College campus, was popular during the early years of the 19th century, with butted siding, sidelights, and low pitched pediments and rooflines.[7] Later in the 19th century, architectural choices were less formal as the picturesque aesthetic took hold of the architectural world, and Gothic Revival, Italianate, Second Empire French, and Queen Anne became popular.[8] Even though architectural styles continued to evolve, encompassing the City Beautiful movement that was an outgrowth of the 1893 World's Columbian Exposition in Chicago and other Beaux-Arts concepts, these ideas did not come in to play in the 19th century lives of the four colleges.

Amherst College was founded as an extension of Amherst Academy, which opened in 1814. While the Academy educated men and women, including Mary Lyon, the future founder of Mount Holyoke College, the College was created for the education of 'indigent young men with an eye towards the ministry.'[9] Described by Noah Webster as being on "the hill in the center of the west road in Amherst, on which the church stands, [and] is within two miles of the geometrical center of the territory."[10] Amherst College at its founding in 1821 was established in a single building, called South College, but quickly expanded into a three-building Yale row, consisting of three Greek Revival-style buildings–North College, Johnson Chapel, and South College–arranged in a rigid line known as Chapel Row. South and North colleges, which flanked Johnson Chapel, were dormitories, and Johnson Chapel contained the chapel sanctuary, instruction rooms, labs for scientific experiment, and the library.[11]

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[3] Paul Venable Turner, *Campus: An American Planning Tradition*, (Cambridge, MA: MIT Press, 1984), 38.
[4] Turner, *Campus,* 150.
[5] David Schuyler and Jane Turner Censer, eds. *The Papers of Frederick Law Olmsted: Volume VI, The Years of Olmsted, Vaux & Company, 1865-1874* (Baltimore, MD: Johns Hopkins Press, 1992), 12
[6] Thomas A. Gaines, *The Campus as a Work of Art*, (New York, NY: Praeger,1991), 6.
[7] Gaines, *The Campus as a Work of Art*, 8.
[8] Gaines, *The Campus as a Work of Art*, 8.
[9] Frederick H. Hitchcock, *The Handbook of Amherst*, edited by Richard Panchyk, (Charleston, SC: History Press, 2007), 58.
[10] Stanley King, *The Consecrated Eminence*, (Amherst, MA: Amherst College, 1951), 7.
[11] Johnson Chapel and North College were constructed by Amherst builder Hiram Johnson. No builder for South College has been identified (M.B. Taft, *Amherst College Buildings and Grounds Historical Information,* Buildings and Grounds Collection, Robert S. Cox Special Collections and University Archives Research Center, UMass Amherst Libraries, 2007); Hitchcock, *The Handbook of Amherst,* 81.

Two Italianate style buildings were added on to Chapel Row in the mid-1800s to make the layout a five-building Yale row: Williston Hall, standing on the site of the former "Old" North College, which burned down in 1857, and Appleton Cabinet.[12] Other Italianate buildings, near the former center of campus, include Morgan Hall, built in 1852–1853, and Woods Cabinet/Lawrence Observatory, called the Octagon, built in 1847-1848.[13] The Octagon, one of the most recognizable buildings of Amherst College, was despised by Frederick Law Olmsted Sr. When consulted about where to situate a chapel on campus, Olmsted suggested an entirely new plan for the campus. At the time, most of the college buildings were oriented west towards the town common; college officials thought perhaps they would build the new chapel near the Octagon, keeping it in the center. Olmsted, however, disliked the Octagon, and was concerned that any building that might replace it would seem to have been shoehorned in. "In studying the structural plans of a college," he wrote, "not the use of years but of centuries should be considered." Ultimately, Olmsted recommended that the new church be built in such a way as to reorient the campus center, and subsequent buildings be arranged around that new center to create a quadrangle.[14]

The church in question was Stearns Church, built in 1870 (demolished 1948). The gift of William F. Stearns, who was the son of the president of Amherst College, the Monson granite church was, following Olmsted's suggestion, built east of South College.[15] Despite retaining Frederick Law Olmsted Sr. as a consultant when siting new buildings, students and alumni felt as though the campus lacked an overarching design. In 1903, members of the class of 1893 decided to take campus landscape design matters into their own hands and hired a team of prominent artists and architects to design a plan: Frederick Law Olmsted Jr.; Charles McKim and Amherst graduate William Mead, both of McKim, Mead and White; Daniel Burnham, the head architect of the Chicago World's Fair; and renowned sculptor Augustus Saint-Gaudins. Olmsted and Mead did most of the work, designing a plan that would reorient campus around a center green, much like the one suggested by Olmsted's father in 1870. However, the elder Olmsted disliked Chapel Row, finding it uninteresting while Mead and the younger Olmsted opined, "the group and its setting so perfectly express the early traditions of the College and are withal so charming in consistency of character, that they must be accepted and preserved as the central features of any project of future development."[16]

The plan designed by Mead and Olmsted emphasized the main plateau of the campus as the central design feature, as opposed to the Amherst Common to the west. Recognizing that there were already significant buildings to act as a boundary for the campus green, Mead and Olmsted turned their attentions to the buildings themselves, instead of the grounds. The three original buildings of Chapel Row were felt to be worthy of saving, but the committee was not as kind to the outer two buildings, Williston Hall and Appleton Cabinet. Not only did they detract from the unity of the campus plateau, Mead and Olmsted described them as, "crude, ill-designed and poorly built structures of an unfortunate period in American Architecture."[17] The duo also recommended giving Johnson Chapel a "second" front, to face the new quadrangle, removing the Octagon/Woods Cabinet to open the view from the President's house, and keeping the east and south slopes of the college open.[18] In the closing of their report to the Board of Trustees, Mead and Olmsted warned that, "while any plan for the future of a

[12] Bryant F. Tolles Jr., *Architecture & Academe: College Buildings in New England Before 1860*, (Hanover, NH: University Press of New England, 2011), 119–22.
[13] Tolles, *Architecture & Academe*, 117–118.
[14] *Amherst Alumni News,* "The Olmsteds at Amherst," Vol 32(2), Fall 1981, 14–22.
[15] King, *The Consecrated* Eminence, 76–79.
[16] *Amherst Alumni News*, "The Olmsteds at Amherst," 20–21; Frederick Law Olmsted Jr. and William R. Mead, *Fine Art Commission Report*, (Boston, MA: The Merrymount Press, 1906), 2.
[17] Olmsted and Mead, *Fine Art Commission Report*, 4.
[18] Olmsted and Mead, *Fine Art Commission Report,* 6–7.

college must be flexible to meet unforeseen conditions, yet unless there be some plan, the essential points of which are unflinchingly adhered to, the ultimate result of meeting each temporary problem as it arises must in the long run lead to a confused, inconvenient and extravagant result."[19]

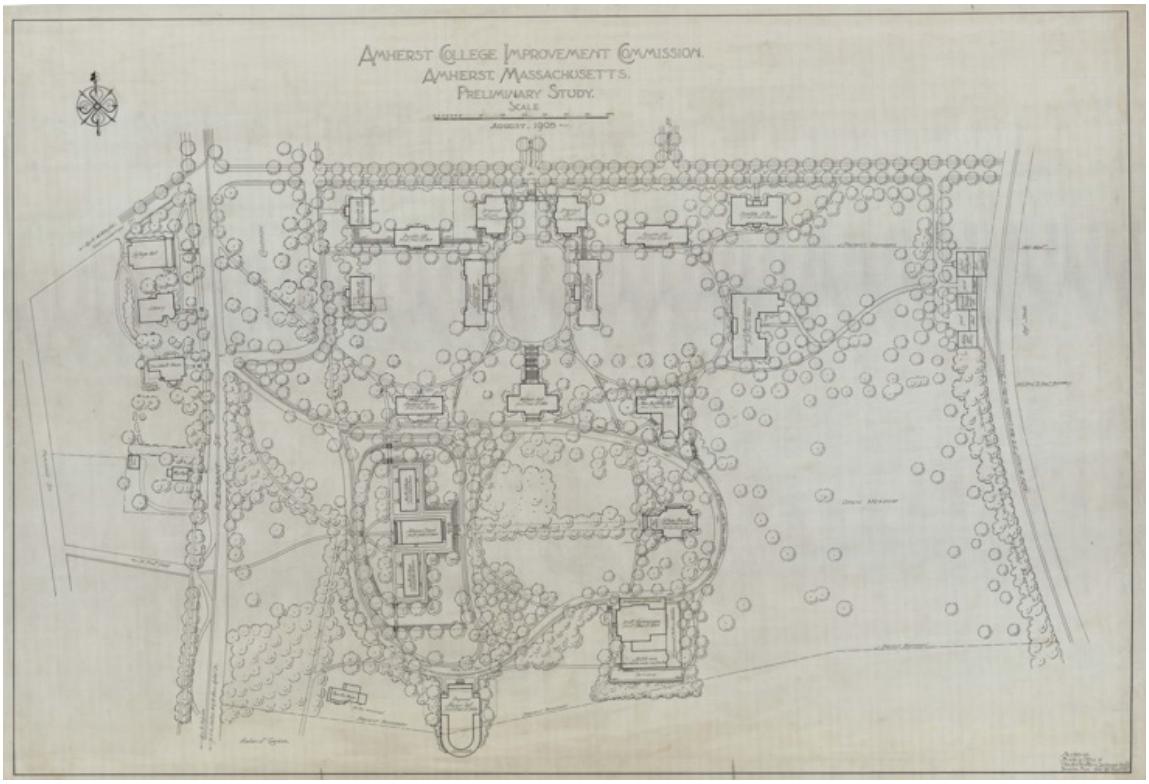

Figure 2. 1905 plan of Amherst College (Olmsted Brothers, courtesy of the National Park Service, Frederick Law Olmsted National Historic Site).

Ultimately, Amherst College ignored most of Mead and Olmsted's specific ideas while maintaining the general sense of the plan. Williston Hall, Appleton Cabinet, and the Octagon remained, and the recommended grading of the landscape was not carried out. Ten years after the initial consultation, William Mead was asked to create a new plan for the campus. In a letter to his partner of the last effort he wrote,

> My dear Olmsted:
> You will remember about ten years ago that the class of '93 of Amherst College raised a fund of $5,000 and that you and I prepared a plan for the future development of the college buildings and grounds...while the general plan has been recognized, about three years ago the Pratt dormitory was erected on a site north of Walker Hall and ostensibly on one of the sites proposed by us, but without regard to the grade we had laid down. I was not consulted about the location of this building, and consequently got rather miffed and lost interest in the work."[20]

Despite this, Mead and his New York-based firm, McKim, Mead and White, were the primary architects of the campus well into the 1930s.

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[19] Olmsted and Mead, *Fine Art Commission* Report, 8.
[20] *Amherst Alumni News,* "The Olmsteds at Amherst," 22.

Contrasting with Amherst's Yale Row was the seminary building constructed for Mount Holyoke College in South Hadley. Mount Holyoke College was founded in 1837 as a women's seminary by Mary Lyon, a graduate of the Amherst Academy. At the time of Mount Holyoke's founding, men's colleges, like Amherst, consisted of separate buildings, designed to give the men a measure of independence as they moved from one to another.[21] Conversely, while women's colleges were created to encourage independent thought and action among women, social mores dictated that an independent woman was less feminine. Despite having members of the Amherst College faculty on the board of trustees for Mount Holyoke Seminary, as it was known at its founding, Mary Lyon designed her school to be contained in one building, under the idea that the virtue of women would be guarded, with internal order following external order.[22] That is, if one's surroundings are calm and peaceful, one will also be calm and peaceful.

The Seminary building was a four-story red brick building with white trim, built following a generalized house plan. Initially, the building looked like any other in the town of South Hadley and could have been mistaken for a factory or an inn as easily as a college. Shortly after its construction, however, a two-story white piazza was added to the façade, giving it a distinctly domestic look, hinting externally at the house plan that lay within.[23] As the seminary grew, so did the seminary building – where other campuses might have added buildings to accommodate the growing campus population, Mount Holyoke chose to add wings on to the original building. Despite the growing size of the college, Seminary Hall maintained its domestic structure and centrality to campus life, until tragedy struck on the night of September 27, 1896.[24] While the students and faculty residing in the building were evacuated safely, the entire building was consumed by the conflagration, forcing Mount Holyoke to rebuild the campus.

A decision had to be made following the 1896 fire; either rebuild exactly as the campus had been or adopt the popular cottage plan that was in use at Smith College, among other places. Connecticut architect William C. Brocklesby had already been engaged by the seminary to design a cottage at the behest of Elisabeth Storrs Mead, then president of school.[25] As the fire struck before Brocklesby's plan could be enacted, the opportunity to rebuild the campus integrating the influence of Smith College was at hand. Lyman Williston, a trustee of Mount Holyoke at the time of the fire was also a Smith College trustee, and placed a call to John Charles Olmsted, Frederick Law Olmsted Sr.'s nephew and adopted son, and partner in the firm, inviting him to visit the campus.[26] As we will see later, the plan developed by the Olmsteds was similar to that of the one for Smith, with small cottages for housing the students and separate buildings for different subjects arranged around a green space with meandering paths. Beyond the adoption of the cottage plan made popular by Smith, Mount Holyoke shared architects as well: Peabody and Stearns of Boston designed Williston Hall, a smaller, less ornate version of Smith's College Hall, and Brocklesby designed the gym and two of the new cottages. Mount Holyoke, unlike Amherst College, did not have a unifying style of architecture; instead, unity of design came from the materials used in construction: brick and local stone from Longmeadow and Monson.

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[21] Deborah Woodcock, "Mount Holyoke: The Stones and Bricks and Mortar." *Mount Holyoke Alumni Quarterly*, Winter 1988.
[22] Woodcock, "Mount Holyoke."
[23] Helen Lefkowitz Horowitz, *Alma Mater,* (New York, NY: Alfred A. Knopf, 1984), 20.
[24] Horowitz, *Alma Mater,* 26, 228.
[25] William C. Brocklesby designed buildings for Smith and Mount Holyoke Colleges, and the Massachusetts Agricultural College.
[26] John C. Olmsted, Memo, 9 June 1896, MHC Architects - Olmsted Associates, Mount Holyoke College Archives, South Hadley, MA.

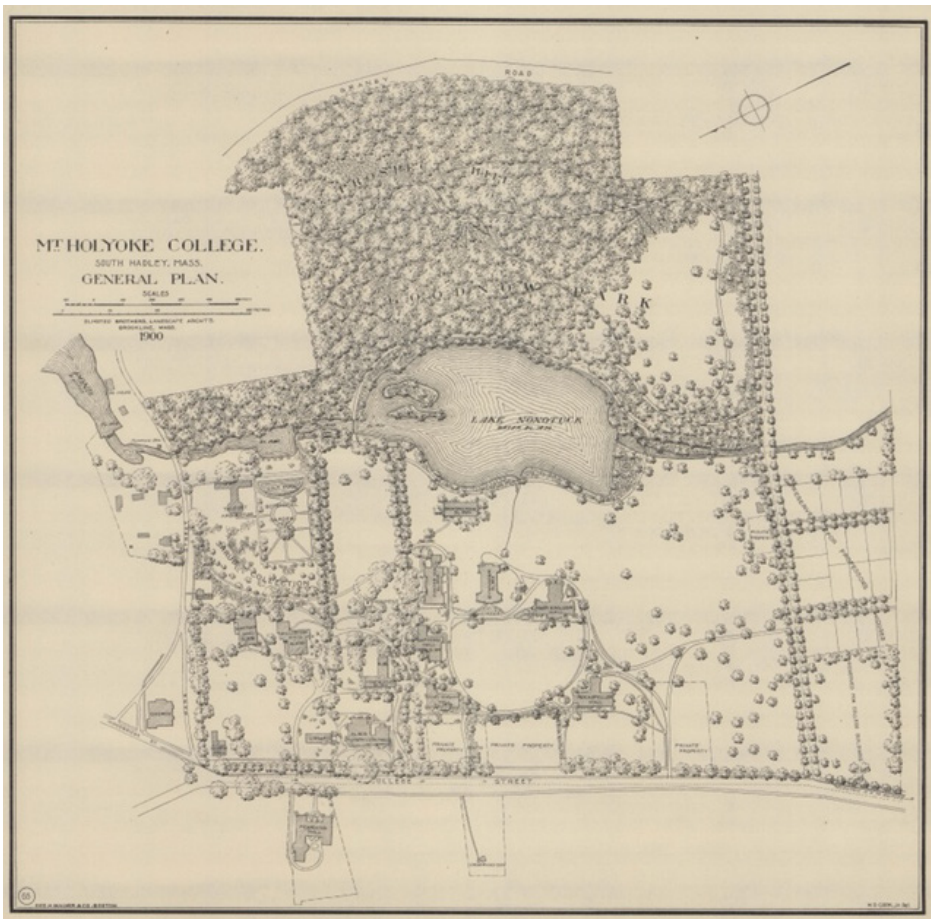

Figure 3. 1900 plan of Mount Holyoke College (F.L. and J.C. Olmsted, courtesy of the National Park Service, Frederick Law Olmsted National Historic Site).

Buildings constructed just after the turn of the century were designed by architects trained at the Ecole des Beaux Arts in Paris like George F. Newton and the firm of Putnam and Cox, each with more elaborate Gothic or Jacobean detailing to practically shout the dignity of the college to the surrounding town.[27] Employing Frederick Law Olmsted Jr. to assist in the placement of buildings around the campus, the site selection formed two informally separate areas – one for academic buildings and one for residences. Aware of the crowding of cottages that had taken place at Smith prior to a comprehensive campus design, Lyman Williston was adamant that the buildings be situated around quadrangles, creating enclosed park-like spaces for the enjoyment of students and faculty alike. This new design, along with the recently adopted four-year academic program and a change in name from Mount Holyoke Seminary to Mount Holyoke College would project to the world that the College had come of age.[28]

Smith College, the last of the four to be established, is an architectural intermediary between Amherst and Mount Holyoke. The executors of local resident Sophia Smith's estate, which provided money for the founding of a women's college in Northampton, counted among their numbers Amherst College professors and trustees. The Amherst College influence can be seen in the use of separate buildings for separate activities, which broke with the tradition of earlier women's colleges, including Vassar, Wellesley, and Mouth Holyoke, which housed all campus operations in one building. John

[27] Horowitz, *Alma Mater,* 234.
[28] Horowitz, *Alma Mater,* 232–236.

Morton Greene, Sophia Smith's pastor in Hatfield, was instrumental in the adoption of the cottage plan by Smith College. Married to a Mount Holyoke graduate, Greene was familiar with the South Hadley campus design, and felt that sequestering the women away in a seminary setting kept them out of touch with the real world. Greene advocated housing students in several small buildings, or cottages, to bring them into the "social life of the town," and convinced Sophia Smith to choose Northampton as the site of the college, rather than her hometown of Hatfield, Massachusetts.[29]

The initial setting for Smith was on two adjacent farmsteads purchased by the trustees for the purposes of developing a campus. As described by Helen Horowitz, "Smith College's initial campus had every element important to the new vision: the dignified setting for intellectual life; the male patriarchal presence; the domestic dwelling house; placement on a central street; and no library or chapel."[30] The placement of the campus on a central street did more than just add ease of access to the campus – it integrated the campus into the life of the town, and the town into the life of the campus. This was a fundamental difference between Smith and Mount Holyoke; Mount Holyoke was situated on one side of College Street, maintaining a pastoral tone with expansive green spaces and a lake, while Smith straddled both sides of the main street in Northampton, taking on the feel of a small town itself.[31]

The early Smith campus architecture is more eclectic than its Victorian Gothic beginnings. Buildings were a combination of those that were already on or moved to the site and purpose built.[32] Dewey House, originally the residence of a prominent Northampton family, was designed by Thomas Pratt in the style of Ithiel Town, with classicizing elements in the form of four Ionic columns adorning a two-story square house.[33] The choice of Dewey House for the first residence of Smith served two purposes: first, it had been a single family house, thus fitted into the cottage design envisioned for the campus residences, and second, it could be used as a template for cottages to be constructed in the future.[34]

The first purpose-built building at the college was College Hall, designed by Peabody & Stearns. It was placed on a hill overlooking Northampton on one side and the campus on the other. Clearly influenced by the natural history museum at Oxford, College Hall employs polychromy and local fauna created out of terra cotta as details around doors and atop pillars. Robert Peabody studied under Alfred Waterhouse, an English architect who designed Girton College, the first women's college in England which was singled out as a model for Smith by Amherst professor Julius Seeyle, who was a trustee of Smith College and the older brother of L. Clark Seeyle, the first president of Smith. Waterhouse's influence is seen in other buildings built by Peabody & Stearns at Smith, including Pierce Hall, and Hatfield, Washburn and Hubbard houses.[35]

In 1892, Smith College hired Frederick Law Olmsted Jr. to design a landscape plan for the campus. Olmsted's design incorporated winding paths to connect residential houses to each other and an eschewing of formal axes and rigid geometry. This park-like design, which featured irregularly shaped lawns surrounded by trees allowed the campus to grow organically like a small agrarian village.[36] Described by Richard Dober in *Campus Landscapes* (John Wiley and Sons, 2000) as a collegiate version of the metropolitan Boston park system, the Smith campus was an ensemble of ponds, groves of trees, and

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[29] Horowitz, *Alma Mater,* 71.
[30] Horowitz, *Alma Mater,* 76.
[31] Horowitz, *Alma Mater,* 228.
[32] Eleanor Terry Lincoln and John Abel Pinto. *This, The House We Live In: The Smith College Campus from 1871 to 1982,* (Northampton, MA: Smith College, 1983), 20.
[33] Lincoln and Pinto, *This, The House We Live In*, 77.
[34] Horowitz, *Alma Mater,* 78.
[35] Margaret Birney Vickery, *The Campus Guide: Smith College, An Architectural Tour*, (New York, NY: Princeton Architectural Press, 2007), 2, 3; Horowitz, *Alma Mater,* 78.
[36] Vickery, *The Campus Guide: Smith College,* 3.

patches of ground cover surrounding specimen trees.[37] This landscape design took into account the natural topography of the campus, as well as the educational goals behind the idea of transforming the campus into a botanical garden. Paradise Pond, one of the more well-known landscape features of the college was added in the early part of the 20th century when Smith acquired the grounds of the Massachusetts State Hospital, which was adjacent to the original Smith campus. Originally the site of a stocking factory and a laundry, among other light industrial uses, Paradise Pond became the location of the new home for the president of the college, representing a shift in the center of campus. Designed by John Nolen, a Cambridge city planner and landscape architect educated at the Ecole des Beaux-Arts in Paris, the additional campus acreage would maintain some of Olmsted's original plan, while adapting the campus to the 20th century needs of its students.[38]

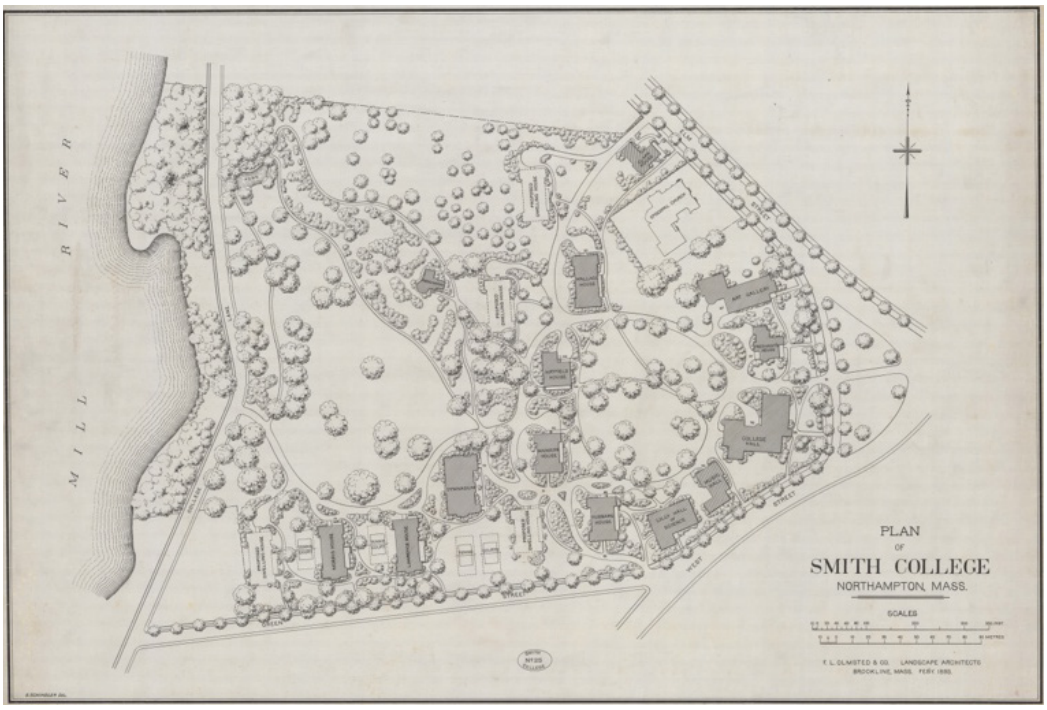

Figure 4. 1893 plan of Smith College (F.L. and J.C. Olmsted, courtesy of the National Park Service, Frederick Law Olmsted National Historic Site).

The outlier among these four colleges is the Massachusetts Agricultural College (MAC), now the University of Massachusetts, Amherst, or UMass. Founded under the auspices of the Morrill Land Grant Act of 1862, the MAC was a public institution designed to educate young men in horticulture, animal husbandry, botany, and other aspects of agriculture. The trustees of the college initially hired Calvert Vaux and Joseph R. Richards to design the principal building and surrounding landscape for the campus. Richards designed a four-story stone building with a Mansard roof, which Vaux proposed should be constructed along the east ridge of campus.[39] The argument for placement presented by Calvert Vaux and Joseph Richards in their report to the trustees of the nascent college made sense aesthetically and agriculturally: the central plateau offered the best farmland, and thus should be left open so that not only would the land be sufficient for the agricultural studies of the incoming students, but that it should

[37] Richard Dober, *Campus Landscapes: Functions, Forms, Features,* (New York, NY: John Wiley and Sons, 2000), 210–211.
[38] Horowitz, *Alma Mater,* 309–310.
[39] Lee Hall, *Olmsted's America: An "Unpractical" Man and His Vision of Civilization*, (Boston, MA: Bulfinch Press, 1995), 141.

appear to be ample as well.[40] Chiding the trustees for putting their desires ahead of the best use of the campus for the students, Vaux wrote, "in regard to the location of the college building proper, with its probable accessories, it is to be borne in mind that the representative owner or occupier of the whole establishment is to be the student for the time being, not the president or any officer [.]" Vaux also questioned the placement of the main building in the middle of the campus plateau, urging trustees to consider the future expansion needs for the college.[41]

The trustees ignored Vaux's recommendation, deciding instead to place the building roughly in the center of the property. They then engaged Vaux's former partner Frederick Law Olmsted Sr. to lay out a driveway to the building, leading from the main road of Amherst. Olmsted questioned the placement and design of the building, and echoed Vaux's concerns about the plan.[42] Olmsted advocated for an informal group of buildings around a green that would also serve as the Morrill Act-mandated drill ground, with academic functions divided among four smaller buildings and cottages for housing no more than 30 students each situated along the road and the common, leaving the wide open 'plain' available for agriculture – the founding purpose of the college. He also recommended damming Tan Brook, which ran through the east part of the campus, to create a pond. Consisting of 310 acres at its founding, Olmsted saw no reason to build a massive building as might be found in a city with limited space for outward expansion.[43] In a letter to Daniel Waldo Lincoln, then a member of the board of trustees, Olmsted wrote, "the individuality of an agricultural college lies in its agriculture, not in its building, which is a mere piece of apparel to be fitted to the requirements of the agricultural trunk. The building and the building site therefore must be the corollary of a plan, and it would be more than a mistake, in my judgment, to make it the ruling circumstance."[44]

Annoyed at receiving a lecture instead of a plan, the trustees rejected Olmsted's plan, and passed a resolution making their collective opinion plain, stating that there was "nothing in the report of Mr. Olmsted to warrant the trustees in undoing or changing the action taken in regard to the general location of the collegiate buildings."[45] Olmsted countered with an article published in *The Nation* in October 1866, "How Not to Establish an Agricultural College," in which he described the folly of the plan of the Massachusetts trustees, likely concurrently dashing any hope held by college president Henry French that the trustees might reconsider their rejection of Olmsted.[46] The result of the ensuing turmoil between Vaux, Olmsted, French, and the building committee was French's resignation and Vaux and Olmsted being dropped from consideration for consulting on other buildings.[47]

When the Massachusetts Agricultural College opened to students in 1867, the first buildings were the main building, designed by Richards, and North (1868) and South College (1867); none of these buildings remain extant. Among the remaining early buildings are the Old Chapel, the Stockbridge House, the East and West Experiment Stations, and the rebuilt South College, constructed after an 1886 fire. The Experiment stations were built as part of the 1887 Hatch Act, which authorized the creation of agricultural experiment stations on land grant campuses established under the Morrill Land Grant Act to

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[40] Calvert Vaux and Joseph R. Richards, "Report of Messrs. Vaux and Richards on the Location of the Agricultural College," Early Campus Planning Collection, Robert S. Cox Special Collections and University Archives Research Center, UMass Amherst Libraries, 1864.
[41] Vaux and Richards, "Report of Messrs. Vaux and Richards," 3.
[42] Turner, 142
[43] Frederick Law Olmsted Sr., "Preliminary Report Upon a Plan for the General Arrangement of the Premises of the Massachusetts Agricultural College," (History of the University Collection, Robert S. Cox Special Collections and University Archives Research Center, UMass Amherst Libraries, 1866), 2.
[44] Schulyer and Censer, 16.
[45] Turner, 142; Rand, 15.
[46] Turner, 142.
[47] Campus Landscape Improvement Project, *A History of the Campus Landscape: University of Massachusetts at Amherst,* (Amherst, MA: Campus Landscape Improvement Project, 1978), 1.

conduct research beneficial to farmers in improving their crops. The West Experiment Station, built in 1883 is red brick and sandstone, and housed the chemistry lab of the state experiment station. The East Experiment Station, constructed of brownstone and red brick, was completed in early 1890 and was used for agricultural experiments.[48]

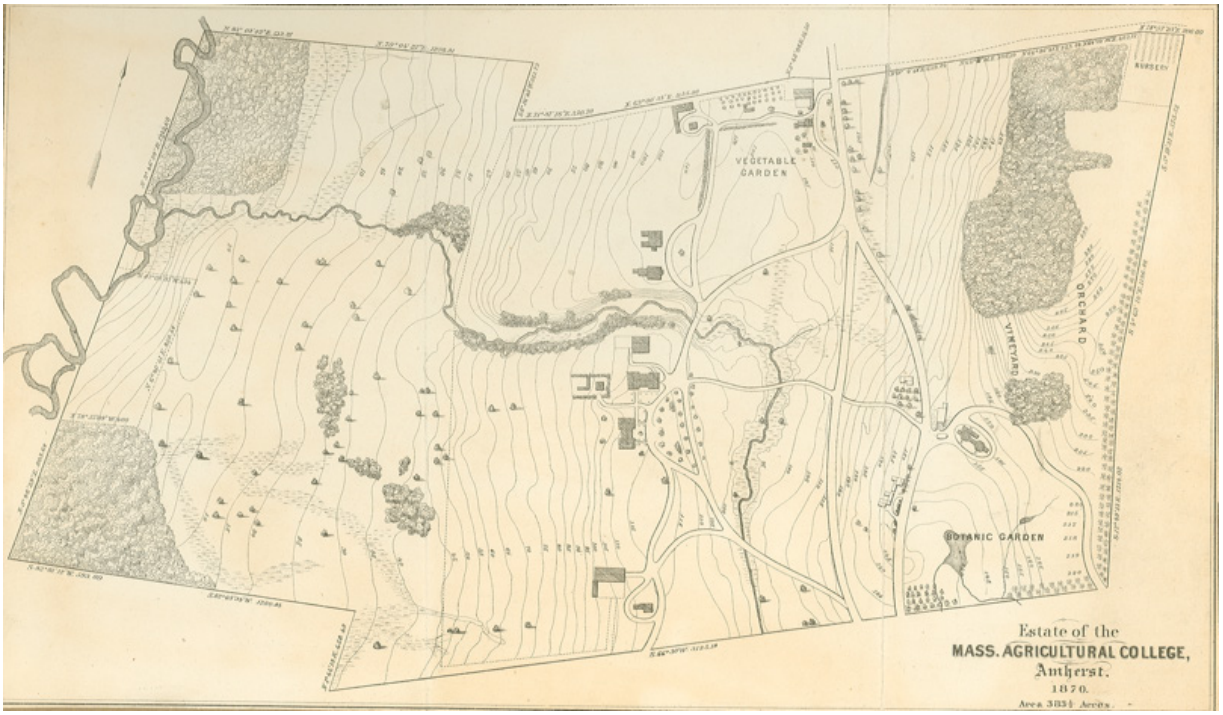

Figure 5. 1911 reconstruction of the Olmsted plan for the Massachusetts Agricultural College (Frank Waugh, courtesy of the National Park Service, Frederick Law Olmsted National Historic Site).

Near the center of campus, two campus landmarks were constructed in the late 1800s. First, the iconic Richardsonian Romanesque-style Old Chapel, designed by Stephen Earle, was built in 1886.[49] Constructed of local Pelham granite with red Longmeadow sandstone trim, the Chapel served as a library, a natural history museum, and the religious center of the college. The campus pond was created in the winter of 1890–1891 following Olmsted's recommendation of damming the Tan Brook, adding to the pastoral image of the campus. The original informal arrangement of the campus, due to a lack of an overarching plan, is evident in later views of the campus.[50] In 1911, Frank Waugh, the founder of the college's landscape architecture program in 1903, made a study of the campus landscape for the commission on grounds, noting early contributions by Vaux and Olmsted, and somewhat lamenting the rejection of the Olmsted campus design.[51] In his report prepared for the building committee, Waugh gave his audience a rough history of the campus plan as it existed to date, as well as expounded upon the Olmsted plan for campus. Waugh validated Olmsted's design stating,

[48] Hitchcock, 100–101, 174, 177.
[49] Marla R. Miller and Max Page, *The Campus Guide: University of Massachusetts Amherst,* (New York: Princeton Architectural Press, 2013), 62–63.
[50] Campus Landscape Design Plan, *A History of the Campus Landscape,* 3, 5.
[51] Frank Waugh, *Studies for the improvement of the grounds of the Massachusetts Agricultural College from 1864 to 1911,* (Amherst, MA: Massachusetts Agricultural College, 1911), 3.

> The discussion of the purposes of the College, of its policies and its probable future, strikingly reveal Olmsted's insight and breadth of view. It seems quite clear that he had a juster comprehension of the destinies of the infant institution, and of wise means for furthering them, than most of the honored gentlemen and founders of the college with whom he worked.[52]

In time, the landscape designs of the four colleges reached far beyond the Pioneer Valley: Smith and Mount Holyoke influenced each other as well as established women's colleges in Massachusetts such as Wellesley and Radcliffe, Bryn Mawr in Pennsylvania, and Scripps College in California. The rejected plan for the Massachusetts Agricultural College was modified and presented to the trustees of the Maine Agricultural College, later the University of Maine at Orono, where it had a somewhat better reception, but still not fully implemented. Ultimately, the modern campuses of each of the four colleges are the true test of the effectiveness of the early campus planning endeavors and reflect the continuing influence of the Olmsteds.

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