University of Georgia Historic Contexts

Historic Contexts Associated with the History of the University of Georgia

Historic contexts are patterns, events, or trends in history that occurred within the time period for which a historic property is being assessed or evaluated. Historic contexts help to clarify the importance of a historic property by allowing it to be compared with other places that can be tied to the context.

Figure 13. Wadham College, Oxford. (Source: Turner, 14)

In the case of the University of Georgia, there are multiple historic contexts associated with the historic properties that are the focus of this study due to the complexity, age, and variety of resources involved. Historic contexts pertaining to the University of Georgia can be tied to trends in campus planning and design, architectural styles, vernacular practices, educational practices and programs, scientific research efforts, government programs, and archeology, among other topics. These trends can be seen as occurring at a local, state, or even national level.

The section that follows presents an overview of several historic contexts identified in association with the UGA historic properties considered in detail later in this document, identified through research, documentation, and assessment efforts. The historic contexts presented below suggest the connections between physical development of UGA historic properties and themes, policies, practices, and legislation occurring at a broader level, and list one or more specific examples of the historic resources that pertain to each context.

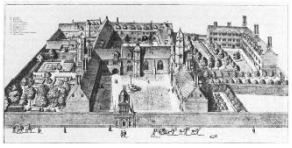

Figure 14. Gonville and Caius College, Cambridge. (Source: Turner, 13)

Historic context information is used as a tool by preservation planners to assess if a property illustrates a specific historic context, how it illustrates that context, and if it possesses the physical features necessary to convey the aspects of history with which it is associated. The information provided below is intended to support future decision-making by enabling the University to evaluate the significance of its historic properties by testing it against a broader historic context. While the section below addresses numerous historic contexts relating to the historic properties considered as part of this study, it is by no means exhaustive, and the University will likely need to continue to expand on this information over time.

Setting the Stage: Early Academic Institutions—America's Nine Colonial Colleges (1636–1783)[30]

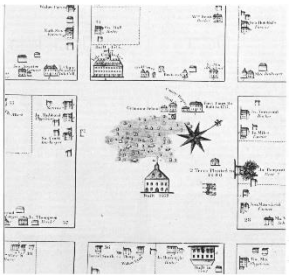

Figure 15. Central part of New Haven, Connecticut, in 1748. (Source: Turner, 39.)

Since the period of Colonial British settlement, higher education has been valued in American society. With early settlers eager to replicate the traditional educational opportunities available at Oxford and Cambridge Universities, the first Colonial college was founded in 1636 in Cambridge, Massachusetts. Known today as Harvard University, the school was first referred to as New College. Its curriculum was based on the prevailing classical curriculum in use in England at the time. Eight additional colleges were founded in the Colonies prior to the American Revolution: the College of William and Mary (founded in 1693); Collegiate School, now Yale University (founded 1701); College of New Jersey, now Princeton University (founded 1746); King's College, now Columbia University (founded 1754); College of Philadelphia, now University of Pennsylvania (founded 1755); College of Rhode Island, now Brown University (founded 1764); Queen's College, now Rutgers University (founded 1766); and Dartmouth College (founded in 1769). The principal way in which these institutions differed from their British counterparts was the manner in which they were dispersed throughout the colonies to serve the regional needs of the scattered populace. In England, Oxford and Cambridge were instead built on a centralized instruction model where students traveled to one or the other of the schools for their education.

Figure 16. "A Westerly View of the Colleges in Cambridge New England." (Source: Turner, 30)

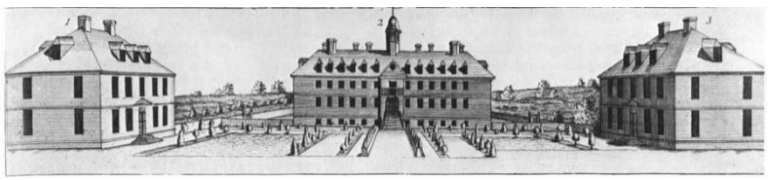

Figure 17. College of William and Mary, in the mid-eighteenth century. (Source: Turner, 35)

30. Much of this section is derived from Paul Venable Turner, *Campus; An American Planning Tradition* (Cambridge, Massachusetts: MIT Press, 1984), 17–50.

The Colonial colleges followed the lead of Oxford and Cambridge, however, in promoting the ideals of order and knowledge gained through study, while adhering to the apparent nobility and necessity of the traditional college and its classical curriculum. While these ideals were expressed through choices of curricula and methods of moral discipline, they were also often evident in the arrangement of buildings and spaces associated with the campus landscape.

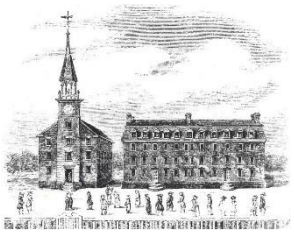

Figure 18. Yale College in the 1780s. (Source: Turner, 40)

Due to their diversity of settings, Colonial colleges varied widely in terms of their physical form. The Harvard campus took the form of a three-sided courtyard plan, while the College of William and Mary was laid out like Oxford, with an enclosed quadrangle forming the heart and principal space of the campus. Several of the other campuses were focused around a single large building that housed all school functions. With many of the schools established in small towns or at the margins of cities, school buildings were typically surrounded by large expanses of open green space. The principal buildings were often fronted by an expansive greensward that served to separate the academic life from the nearby town. At Princeton, for example, the main building was placed on a hill some distance from the road, establishing a large open green space between the town and the school that effectively separated the two physically and symbolically.

As these Colonial colleges expanded, the initial spatial pattern was often modified to accommodate new buildings. Some grew in organic ways, which further separated the campus plan from their English counterparts. Oxford and Cambridge were both located in cities. Their arrangement of buildings and spaces was orderly and responded to the surrounding street patterns. They were generally inward-looking, with buildings arranged around a central open courtyard and set within a walled precinct. American colleges tended to be more rural and open, to face outward, and to feature object buildings set within open landscape spaces.

Colleges and Universities for a New and Evolving Nation (1783–1862)[31]

One of the first state public colleges to be established in the new nation following the American Revolution was the University of Georgia, the first state-supported university, chartered by the state legislature in 1785. The establishment of the University of Georgia marked the beginning of public education in America. To provide for the needs of the college, the state granted 40,000 acres of land to the new institution that it could use for the establishment of facilities or to generate income. A committee from the University's board of trustees selected a site for the school in 1801 on a hill near the existing community of Cedar Shoals. Trustee John Milledge, who purchased 633 acres associated with the site and donated it to the university, also named the surrounding area Athens in reference to the academy of Plato and Aristotle in Greece. The first classes were held at the University in 1801 in an existing building. By 1806, the university's first academic building—Franklin College (now Old College)—had been constructed to support the needs of the college. This building, along with New College, built in 1823, and the Chapel, completed in 1832, were simple, functional structures that did not appear to reference a particular architectural style. Franklin College

31. Ibid., 53–127.

was modeled after Connecticut Hall at Yale College. These buildings were set within a rural open area, away from the town of Athens, atop a hill that afforded views of the surrounding countryside.

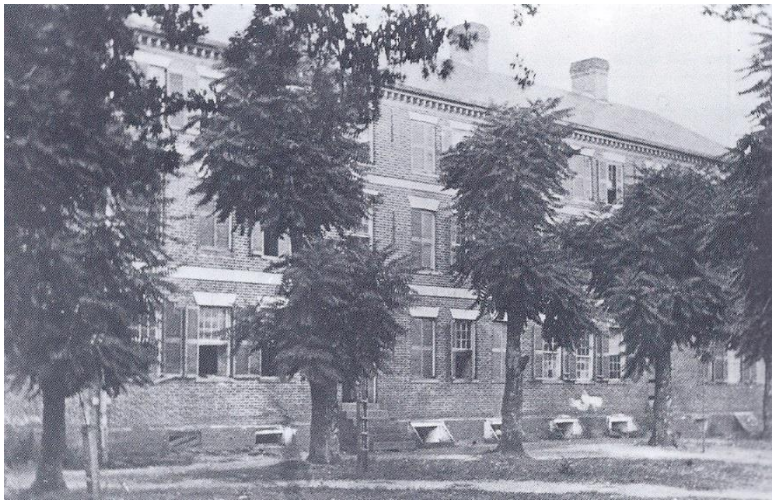

Figure 19. Franklin College (Old College). (Source: University of Georgia archives)

The Colonial colleges as well as many of the new colleges and universities established during the Early Nation period were located in rural areas rather than in cities. Unlike their British counterparts, American academic institutions reflected the belief that urban areas would have a negative influence on impressionable students. During the late eighteenth and nineteenth centuries, the picturesque setting of the rural landscape was considered to offer a more healthful and inspiring environment for students. Americans began to consider a picturesque setting, complete with views to natural surroundings, as having the potential to favorably impact the mental and physical health of the student body. This view would continue, particularly as a response to the environmental and social consequences of the Industrial Revolution.

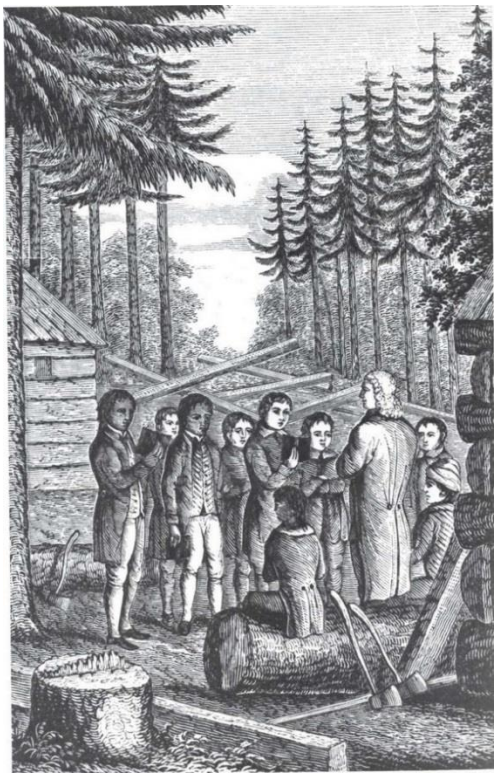

Figure 20. Illustration of the Founding of Dartmouth College in 1769.
(Source: Turner, 16)

One example of a nineteenth century campus that reflected the ideals of the value of a natural setting was the University of Virginia. Begun in 1817and completed in 1826, the school was the brainchild of former President Thomas Jefferson. With a strong interest in architecture and education, Jefferson sought to implement a new approach to the design of higher education institutions that involved the campus in the educational programming. At the University of Virginia, Jefferson created his so-called "academical village," which was dedicated to an enlightened dialogue between students and teachers promoted by the arrangement of living, classroom, and library spaces. The students and teachers lived in close proximity to one another in linear arrangements of quarters, with the students housed in small rooms edged periodically by larger pavilions that housed the faculty. Two linear systems of rooms and pavilions were connected by walks and a covered arcade. The two rows faced one another and a central open space that was marked at the head by the library. By placing the library symbolically at the head of the college, Jefferson suggested a commitment to research and continuing study that had previously not existed at American colleges.[32] Across from the library, the campus was open and oriented to an expansive vista of the natural landscape intended to inspire and refresh.

32. Ibid., 83.

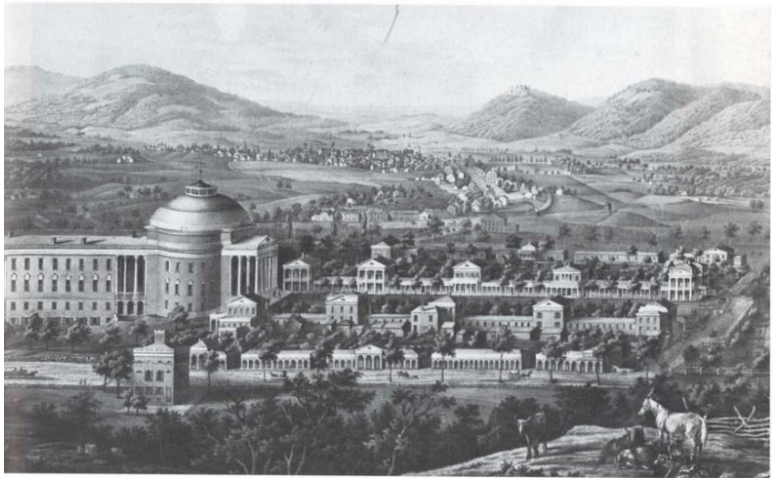

Figure 21. View of the University of Virginia from the west. (Source: Turner, 85)

The Influence of Greek Revival Architecture and Neo-Classicism on American College Campuses (1810–1850)

During the early nineteenth century, America was enthralled with the concept of peripatetic learning, with the ideals of order and knowledge gained through study. While these ideals were exhibited through choice of curricula and methods of moral discipline, they could also be seen in the way campus landscapes developed. Neoclassical architecture was often used to represent the values associated with academia during the early to mid-nineteenth century. Both the Greek Revival and Federal styles of architecture were represented in neoclassical architecture. Neoclassical styles remained popular during the early nineteenth century as Americans looked to the classical world of ancient Rome and Greece to guide development of institutions within the new nation using the attributes of these great societies as a model. Many new towns founded during this period assumed the names of classical world places—Rome, Syracuse, Carthage, Troy, Ithaca, and Athens—and used Greek Revival architectural styles for institutional buildings in order to reinforce the connection. Classicism was also used in college towns and on campuses throughout the country for this reason, and to imbue these places with a sense of permanency despite oftentimes being located within relatively undeveloped wilderness.

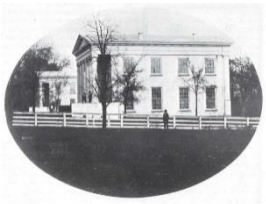

Figure 22. Whig and Cliosophic halls, Princeton, 1837-1838. (Source: Turner, 91.)

During the 1810s and 1820s, Greek Revival architecture became exceedingly popular in the United States due to the way it was thought to reflect emerging ideals for the young nation. The most prevalent architectural style of the antebellum period was neo-classicism, specifically Greek Revival. This style signaled a growing appreciation for the philosophical and academic values of antiquity, spurred on by the newly founded American republic. By the early nineteenth century, Americans were working to separate themselves from Old World traditions, such as monarchy and tyrannical rule, while embracing the principles of their new democracy. Classical Greek concepts of republic and democratic rule were considered a model for the young nation. The Greek Revival style became a potent symbol that was incorporated into the physical expressions of many government and higher education buildings. The naming of the town at the University of Georgia "Athens" reflects this trend. The university is one of several academic institutions established during this period that are set

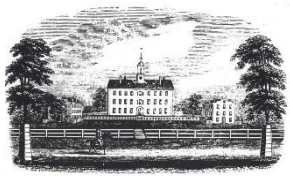

Figure 23. Ohio University, Athens, Ohio. Source: Turner, 36)

in towns named Athens, including the University of Ohio, while Athens College in Alabama was also established in response to this impulse. Princeton began referring to itself as "The Athens of America," and the College of Charleston "The Athens of the South."[33] This desire for new political and social order found an outlet not only in politics, but also in the physical design of the landscape and the buildings placed upon it. In addition to siting of buildings, topography also played a part in campus planning during the era of Classicism. Colleges and universities were often located upon hills or ridges to separate the school from local villages or towns that were initially thought to be poor influences on impressionable students; and to maintain a picturesque setting, complete with views to natural surroundings, that were thought to favorably impact the mental and physical health of the student body.

By 1820, neo-classicism had become one of the most popular design styles in America. At a broad scale, the style placed an architectural stamp on the young and suddenly flourishing nation, still largely agrarian and Jeffersonian, where politicians and others were still engaged in perfecting society. Classicism was based on principles of order and symmetry. As such, buildings were sited in the landscape in symmetrical, orderly patterns, connected by linear axes and bilateral termini. The University of Virginia, with rows of symmetrical ranges of buildings, is a good example of the style. During this period, several schools, such as Girard College in Philadelphia and the University of Wisconsin in Madison, constructed Classical-style building complexes arranged in symmetrical groupings. One of the building types reflective of the style was the Greek temple. Many college building complexes were located on hills or ridges to suggest the educational institution as a temple on a hill. Architectural qualities include the use of strong columns or a colonnade in the ancient Greek orders with an entablature above. The Greek temple form also boasted gently pitched pedimented roofs. The buildings featured square window and door openings, sometimes with a slight point or pediment shape to the top; framed main front door surrounds (aedicule openings); and carved, or cast plaster ornament using motifs of Greek architecture—acanthus, anthemion, or pateras—in door and window surrounds.

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Examples of Greek Revival buildings at the University of Georgia Athens Campus, which are primarily located on the North Campus, represent the foundation period of University development. They include

- The Chapel (UGA 22 – 1832)
- Phi Kappa Hall (UGA 20 – 1834)
- Founders House (UGA 650–652 – 1860).

33. Ibid., 90.

Two additional Greek Revival residences, built privately, that have been assimilated into the Athens Campus of UGA include

- Wray-Nicholson House (UGA 751 – 1825)
- Treanor House (UGA 1657 – 1848–1849).

The Federal style is also considered under the umbrella of neoclassical architecture. Evolved from Georgian architecture, the Federal style is characterized by balance, symmetry, simplicity, and understated detailing.

Three early campus buildings are representative of the Federal style. They include:

- New College, 1823 (UGA 30)
- Demosthenian Hall, 1834 (UGA 21)
- Lumpkin House, 1844 (UGA 1012)

There were also two early University of Georgia buildings constructed during this period that do not reflect a particular architectural style. Restrained in their detailing, these buildings include:

- Old College, 1801–1805 (UGA 130)
- Lustrat House, 1847 (UGA 632)

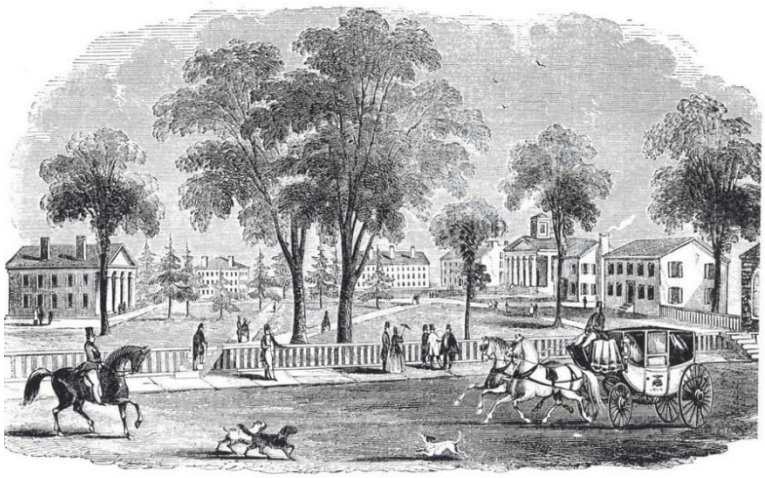

Figure 24. University of Georgia, Athens, circa 1840. (Source: Turner, 95)

Expansion of the College Curriculum (1810–1850)

During the antebellum period, democratic influences within the new republic began to suggest a new model for American higher education. Many of the schools established during the Colonial and Early Nation periods perpetuated a traditional system of education, with a religious emphasis and narrowly classical curriculum. However, as the nation began to experience population growth, migration, waves of immigration, as well as the ill effects of the Industrial Revolution, the need for new educational opportunities became clear. The expanding American frontier, rivalries amongst religious sects, and the promise

of democracy as it might include opportunities for education helped to contribute to a proliferation of colleges in the country.

Pressure to address the needs of other populations led to the establishment of small numbers of new types of schools during the mid-nineteenth century: scientific and training schools, agricultural schools, manual training schools, and women's colleges.[34]

The Didactic Role of Sublime Nature; Mythmaking and Commemoration, and the Romanesque style (1810–1860)

During the antebellum period, circa 1810 to 1861, American higher education experienced tremendous growth but also found itself in crisis. The expanding American frontier, the rivalry of religious sects, and the ideal of democratic education all contributed to a proliferation of new educational institutions to meet various needs. While many new schools did appear within the educational landscape, most of remained committed to the traditional system of education that had been adopted from England, with a strict religious emphasis and narrowly classical curriculum. Intellectual interests falling outside the prescribed curriculum were typically discouraged. However, it was during this period that critics began to question this model, which suddenly appeared irrelevant to a society preoccupied with business, industry expansion, and demographic changes. Students themselves began to protest, sometimes with vandalism and violence; riots and disorder were not uncommon on college campuses. One of the ways in which students began to exert influence was by establishing unofficial curricula that initially included literary and debating societies, and were followed by Greek-letter fraternities, and organized athletics.

Added to these curricular problems were conflicts between religious orthodoxy and academic freedom, the unstable financial condition of many schools, and widespread doubts in the minds of many Americans about the value of higher education. Some American colleges reacted by surrounding themselves with a kind of mythology in order to add to their cache. The most prevalent was invoking the nobility and necessity of the traditional college and its classical curriculum and linking American colleges to an ancient tradition of learning. In part, it was these influences that led to the symbolic use of certain architectural styles and planning gestures on American college campuses.

During this period American stylistic tastes had moved away from the formal, geometrical, and rigid aesthetics of classical revival styles, and began to embrace the more organic, flowing, and natural tendencies of the Romantic Period of architectural and landscape design. The Romantic Period was characterized by the arrangement of landscape elements to appear natural and organic and not contrived, yet often resulted in sites that were heavily manipulated with extensive ornamental plantings, the addition of water features, the installation of curvilinear walkways that followed natural topography, and the introduction of framed views to attractive focal points. The natural landscape was also thought to serve a didactic purpose as suggested by work of Hudson River School artists.

34. Ibid., 89.

Thomas Jefferson, in the design of the University of Virginia, which opened in 1826, was able to convey the increasingly accepted world view that the physical form of an institution should embody an intellectual community's ideals and aspirations. At the University of Virginia, Jefferson's academical village, while pleasant in appearance and connected to the beauty of the Virginia countryside, was actually intended to instruct the student through the use of a range of notable architectural styles in the design of the structures, and the establishment of a formal hierarchy that conveyed the institutional order of the university to the student. Many American campuses would later follow Jefferson's lead and strive to embody an academic philosophy of the scholarly community within the physical features of the campus.

Romanticism grew out of this era, exhibited in a burgeoning interest in the establishment and design of public parks as remedies for crowded cities, tedious grids of urban streets, and the ills resulting from the industrial revolution. The Rural Cemetery movement also resulted from this impulse. The influences of picturesque parks and park-like settings, established principally in the North as a relief for urban conditions, combined with the trend toward naturalistic settings, were likely factors in the design of the University of Georgia campus prior to the Civil War.

Figure 25. Lithograph view of the University of North Carolina. (Source: Turner, 57)

Gothic Architecture (1829–1935)

One of the traditional architectural styles employed at many colleges and universities during the mid- to late-nineteenth century was the neo-Gothic, inspired by medieval Gothic architecture. Although the style had first emerged nearly one hundred years earlier during the mid-eighteenth century, it remained popular during the Victorian era because of its moral overtones, and became popular in the design of academic, governmental, and religious buildings. The Gothic style was adapted to the monumental scale and massive size of many academic buildings through modifications that came to be known as the Richardsonian Romanesque and Collegiate Gothic.

Features that best exemplify the style include steep, gabled roofs, or less frequently, flat roofs with parapets; heavy, undressed stone or brick walls; arched narrow, tall windows with wood or lead dividers and topped with stone moldings; tracery involving curvilinear shapes of carved stone that creates a geometric patterned divider in the windows; relief sculpture on exterior walls;

tablets or plaques set into principal facade exterior wall with inscriptions or relief sculpture; a fleche that is a vertical decoration in the point of a spire or pinnacle; finials at the apex of walls or gables, recessed entrances framed with arches and surrounded by stone moldings; stone carvings; dormers; and the use of crenellation.

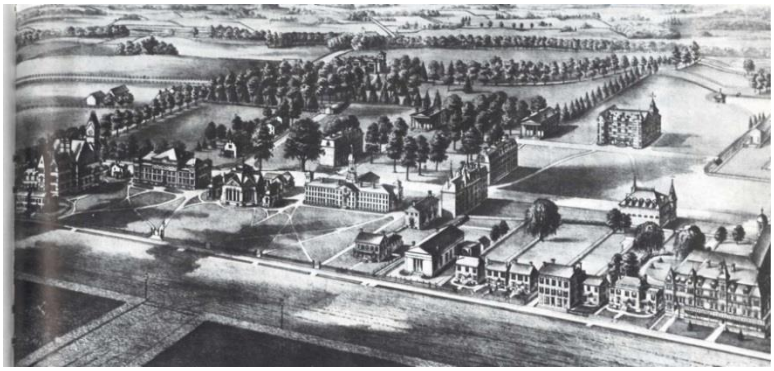

Figure 26. College of New Jersey, Princeton. (Source: Turner, 157)

Examples of Gothic buildings constructed on the Athens Campus during this period include:

- Seney-Stovall Chapel, Lucy Cobb Institute, 1882-1885 (UGA 2617)

The Democratic College (1862–1893)[35]

Land Grant Institutions, Agricultural Colleges, and Experiment Stations (1862–1946)

The University of Georgia administers several properties that can be tied to a group of related historic contexts involving agriculture in terms of education and innovation. The University of Georgia College of Agricultural and Environmental Sciences in Athens; the Griffin and Tifton experiment stations, Mountain Research center, and the Wahsega and Rock Eagle 4-H centers are each principally concerned with agriculture and the role of state education programs in promoting and advancing the field of agribusiness.

America has always been an agrarian nation, and farming an essential aspect of the country's development and growth.[36] Although the University of Georgia was established as a college with a classical and traditional curriculum in 1801, it was later reclassified as a Land Grant institution, and has since become a world-renowned institution concerned with agriculture and related education at the undergraduate, graduate, and secondary school levels. The educational programs support, and in turn are supported by several experiment stations and cooperative extension sites that are part of the University of Georgia system.

The agricultural education, investigation, and outreach programs and activities that characterize the University of Georgia system are the result of federal

35. Ibid., 129–161.
36. New South Associates, Inc., *Phase I Architectural Survey of University of Georgia's Agricultural Experiment Stations* (Athens, Georgia: University of Georgia, March 4, 2015).

legislation and are consistent with a national context of similar educational institutions that arose throughout the country in response to influences as varied as the industrial revolution, immigration, and scientific agriculture. The 1862 Morrill Act that created the Land Grant College system resulted from the nineteenth century era of scientific agriculture that began to influence traditional farming practices as well as education in the 1850s. Recognizing the economic imperative to nurture and disseminate technical training, the federal government acted to promote the establishment of state-supported institutions of higher learning. In 1862, Congress passed the Morrill Act, named for representative Justin Smith Morrill of Vermont, which granted land to the states that could be sold and the proceeds used to establish colleges. Based on the statutes of the law, so-called Land Grant Institutions were to offer instruction in the fields of mechanical arts, agriculture, and military science.

It was also in 1862 that the United States Department of Agriculture was established. Over time, the University of Georgia would establish an agricultural college, and strengthen its commitment to the program by expanding the area of campus devoted to study and agricultural experimentation.

Figure 27. Lawrence Scientific School, Cambridge, Massachusetts. (Source: Turner, 130)

Later, the Land Grant Institutions supported by the Morrill Act would become home to agricultural experiment stations, based on passage of the Hatch Act in 1887, that would disseminate new information to the public, especially in the areas of soil minerals and plant growth. The Hatch Act was designed to support the educational opportunities afforded in land-grant colleges through the establishment of experiment stations, and was an outgrowth of the emerging field of scientific agriculture that suggested the need for study and experimentation to solve the issues common to American farmers on a regional basis. In order that a formal relationship be established between the state experiment stations and the federal government providing funding for their work, a division was established within the Department of Agriculture in 1888 to coordinate experiment station work—the Office of Experiment Stations. The office would also help orchestrate connections between the work of the experiment stations and USDA programs. In 1889, the USDA acquired more solid footing when it acquired cabinet status.

Within Georgia, several experiment stations were established in response to the act, including the Georgia Experiment Station at Griffin in 1889, the Coastal Plain Experiment Station at Tifton in 1918, and the Georgia Mountain Branch Experiment Station in 1930. In 1950, these were brought into the University of Georgia system to support the agricultural college and its educational programs and activities.

The 1906 Adams Act, signed into law by President Theodore Roosevelt, furthered the role of scientific research as part of the role of experiment stations by increasing the financial appropriation for each participating state. The Act differed in one important regard from the 1887 Hatch Act in that it required the experiment stations to conduct “original” scientific research. In 1946, experiment stations received another boost through passage of the Research and Marketing

Act. The Act was passed by Congress as a way to promote agricultural research, which it feared was "lagging far behind research in other fields."[37]

The 1914 Smith-Lever Act, and its expansion in the Smith-Hughes National Vocational Education Act of 1917, further strengthened the role and importance of land-grant colleges by establishing a system of cooperative extension services that would continue to advance the science and business of agriculture by informing people about current developments in agriculture, home economics, public policy/government, and leadership. The Georgia Experiment Station at Griffin became a state cooperative extension site following the act. One of the outgrowths of the Smith-Lever Act was the formalization of 4-H programs. Although the idea of introducing young people to farming was not new, with early clubs formed as early as 1902 in the Midwest, it was not until the Smith-Lever Act was passed that 4-H was recognized at a national level. The Cooperative Extension system was tasked with helping to establish and administer programs and clubs throughout the nation. The University of Georgia now administers several 4-H centers around the state at Wahsega, Rock Eagle, and Jekyll Island. As noted, the University of Georgia is part of the national story of the evolution of agricultural education and the role of land grant institutions in administering state experiment stations, cooperative extension services, and 4-H. The physical resources associated with each of the related properties can also be tied to local, state, and national historic contexts relating to architecture and design. Each of the contexts that relate to the University system in the area of Agriculture is discussed below.

Land Grant Colleges

During the late 1850s and early 1860s, citizens and politicians throughout the United States joined forces to further advance the lives of farmers and residents of rural areas through the creation of a land-grant college system. Before Congress passed the Morrill Act, American institutions of higher education were principally concerned with teaching a classical curriculum, often with a religious emphasis. During the mid-nineteenth century, however, in response to the societal changes resulting from the industrial revolution and a massive influx of immigrants, new types of academic institutions were established to meet the needs of those interested in technical and vocational subjects. These included scientific and training schools, agricultural schools, manual training schools, and women's colleges.[38] The Morrill Act was intended to support this trend in a broader and more comprehensive way by promoting the establishment of state-supported institutions of higher learning.

37. U.S. Congress, House, Committee on Agriculture, *Report on H.R. 6932,* 79 Cong. 2 sess., H. Rept. 2458, 8 July 1946, 2.
38. Turner, 89.

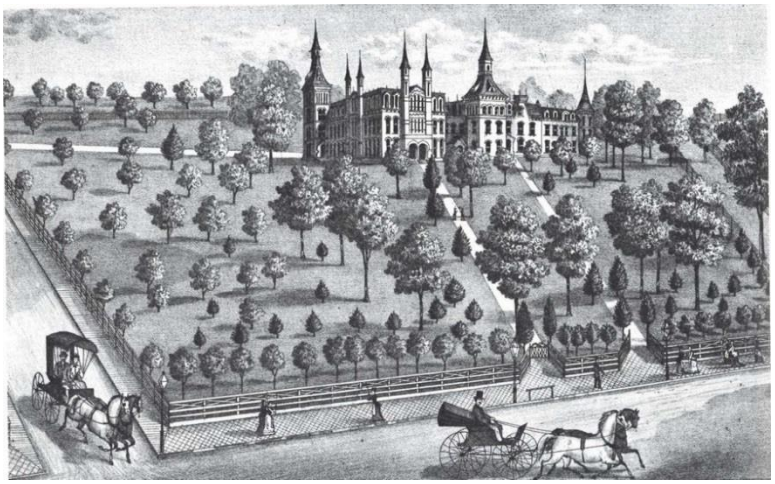

Figure 28. Stephens Female College (now Stephens College), Columbia, Missouri. (Source: Turner, 136)

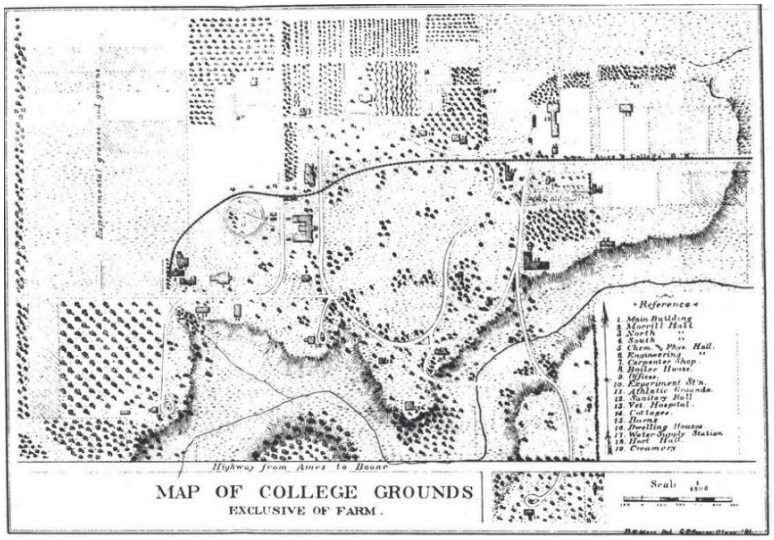

Figure 29. Iowa Agricultural College, "Map of College Grounds, Exclusive of Farm." (Source: Turner, 149)

The leader and voice of the movement to create land grant colleges was Vermont Congressman Justin Morrill. In justifying the need to establish colleges focusing on agricultural education, Morrill argued before Congress in 1857, and again in 1861, that he believed a mid-nineteenth century decline in American agriculture was due to a lack of scientific knowledge, and that passage of a land-grant college bill "would lift up the intellectual and moral standard of the young and industrial classes of our country."[39] Despite his emphasis on teaching agriculture, Morrill did not support referring to the proposed new institutions as *agricultural* colleges, since he remained committed to students receiving a broad education. The debate that ensued in Congress concerned the role of education in American society, including whether its chief purpose was to provide vocational education

39. Justin Morrill, as quoted in I.L. Kandel, *Federal Aid for Vocational Education: A Report to the Carnegie Foundation for the Advancement of Teaching,* Bulletin Number Ten (Boston, Massachusetts: D.B. Updike, The Merrymount Press, 1917), 83.

alone, or should it be considered a supplement to the classical liberal arts education through classes offered in vocational applications.[40]

The act that passed in 1859 on the strength of Morrill's arguments suggested the need to offer opportunities for students to receive an education in agriculture and the mechanical arts. It was, however, vetoed by President James Buchanan. Morrill remained dedicated to the bill, and resubmitted it in 1861 with an amendment that the new institutions would teach military tactics as well as engineering and agriculture. Aided in large part by the fact that many of the states that opposed the bill had seceded from the Union by the time the bill was presented, the reconfigured Morrill Act was signed into law by President Abraham Lincoln on July 2, 1862. The purpose of the new land-grant colleges was indicated in the Act with the goal "without excluding other scientific and classical studies and including military tactic, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

Officially titled "An Act Donating Public Lands to the Several States and Territories which may provide Colleges for the Benefit of Agriculture and the Mechanic Arts," the Morrill Act provided the above-mentioned 30,000 acres of federal land to the states for each member in their Congressional delegation at the 1860 Census, "except for those states that were in a condition of rebellion or insurrection against the government of the United States." In total, sixty-nine colleges were funded through land grants totaling 17,400,000 acres, and collectively yielding an endowment of $7.55 million.

Interestingly, many land grant institutions were founded on previously cultivated land, including the University of Arkansas in 1871, and North Carolina State University in 1887. Several land grant institutions in the South were established at the location of an earlier college, some religious institutions that had struggled to survive after the Civil War. Auburn University in Alabama, for example, was founded as a Methodist college in 1856 and established as a land grant institution in 1872. It was the first land grant school in the South that was not a state university. The University of Florida began as a seminary, but received land grant funding after the Civil War. The University of Georgia is unique among land grant colleges as it was established in 1801 with state funding, and acquired its land grant status later, in 1866.

The original plan of the land-grant colleges was to have young people who grew up on farms attend the schools. Unfortunately, this was not as successful as anticipated in part due to an inherent mistrust of colleges and universities by farmers. This led Congress to pass additional acts to expand the attractiveness of the program. The first was the Hatch Act in 1887 that led to the establishment of agricultural experiment stations. This Act provided additional funding to states to establish a series of agricultural experiment stations under the direction of the Land Grant Institutions (see experiment station context below).

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40. Willis D. Mooreland and Erwin H. Goldenstein, *Pioneers in Adult Education* (Chicago, Illinois: Nelson-Hall, 1985), 120.

In 1890, Congress passed a second Morrill Act for the benefit of the former Confederate states. The Act required each state to indicate either that race was not a factor in admitting students to their land-grant college, or that they would designate a separate land-grant institution for persons of color. Among the seventy colleges and universities that evolved from the Morrill Acts are several colleges and universities that have traditionally served African Americans. The 1890 Act, however, did not include the provision of federal lands, although it granted colleges the same legal standing enjoyed by colleges resulting from the 1862 Morrill Act.[41]

Over time, the Land Grant Colleges have generally expanded to become large public universities that offer a wide range of educational opportunities. The role of Land Grant Colleges and associated experiment stations was later expanded in 1914 through passage of the Smith-Lever Act, and an expanded version known as the Smith-Hughes National Vocational Education Act of 1917. These acts supported creation of an outreach component of the experiment stations referred to as the cooperative extension program. The Smith-Hughes Act was the culmination of the previous acts passed by Congress intended to support and promote vocational training and education, and to train young people for employment on the farm or in the farm home. The purpose of the Act was:

- To provide for the promotion of vocational education.
- To provide for cooperation with the states in the promotion of vocational education in agriculture and industry.
- To provide for cooperation with the states in the preparation of teachers of vocational subjects.
- To appropriate money and regulate its expenditure.

Establishment of the College of Agriculture at the University of Georgia and Land Grant Status (1801–1872)

The University of Georgia was chartered by an act of the state's General Assembly on January 27, 1785, becoming the first state to charter a state-supported university.[42] At the initial meeting of the Board of Trustees, Abraham Baldwin was selected as the first president of the university. Baldwin, who drafted the charter for the university that was adopted by the General Assembly, was the first person to propose a connection between agriculture and the university, although his proposals involved making the campus self-sufficient in terms of food production rather than educating students in farm practices.[43]

The University of Georgia, established in 1801, focused on offering its student a classical education similar to what was offered at the other colleges already in existence in the United States. The classical education model was adopted from English and European educational systems. The school officially opened in

41. Later, colleges such as the University of the District of Columbia and colleges established for Native Americans were awarded cash by Congress in lieu of land to achieve land-grant status.
42. University of Georgia, "History of UGA," http://www.uga.edu/profile/history/, accessed March 10, 2016.
43. Ibid.

Athens in 1805 following completion of the Franklin College building.[44] It was University president, Alonzo Church, who furthered the idea of introducing agricultural education by hiring faculty in the sciences during his tenure that began in 1829. Church also spent considerable funds on a botanical garden that was overseen by Malthus A. Ward, professor of natural history.[45] Ward's lectures and horticultural research in the garden were the first of their type offered at the university.[46]

There were many supporters of formal agricultural education in Georgia who urged the university to consider adding it to the curriculum, and several attempts were made to pass bills that would fund agricultural studies and an experimental farm at the University of Georgia during the 1840s and 1850s. None, however, were successful.[47] It was not until 1854, that the university was able to consider offering agricultural education after receiving funds from Dr. William Terrell, a wealthy agriculturalist from Hancock County, to endow a chair of agriculture. Terrell indicated that his gift was to be used "permanently as compensation for a professor whose duty it shall be to deliver in the college a course of lectures during its term of agriculture as science; the practice and improvement if different people; on chemistry and geology, so far as they may be useful in agriculture; on manures, analysis of soils, and on domestic economy, particularly referring to the southern states; the lectures to be free."[48] Terrell provided a recommendation for the position—Dr. Daniel Lee, who served as editor of *Southern Cultivator*.[49] The Board of Trustees accepted both proposals and on January 1, 1855, created the chair of Terrell Professor of Agriculture. They also elected Lee to the position.[50] Lee accepted the teaching position, while maintaining his position at *Southern Cultivator*.

Even with the endowed chair, funds for agricultural education and to acquire land for use in establishing an experiment station were not forthcoming from the state legislature. Soon after his appointment, Georgia seceded from the Union in 1861. After war broke out, all instruction at the University of Georgia was suspended. Lee moved to Tennessee, where he continued agricultural research and publishing.[51]

Despite the war, Congress passed the Morrill Act in 1862, which provided the states with 30,000 acres of land in the public domain for each of its members of Congress; with nine representatives, Georgia was to receive land totaling 270,000 acres.[52] The states were to use the income from selling the land for "the endowment, support, and maintenance of at least one college, where the leading object shall be.... to teach such branches of learning as are related to agriculture

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44. Stephen J. Karina, *The University of Georgia College of Agriculture: An Administrative History 1785–1985* (Athens, Georgia: University of Georgia, 1985).
45. Ibid.
46. New South Associates, Inc., *Architectural Survey*, 6.
47. Karina.
48. Calvin Clyde Murray, Paul Tabor, R.H. Driftmier, Frederick William Bennett, and George Harris King, *History of the College of Agriculture of the University of Georgia* (1975).
49. New South Associates, Inc., *Architectural Survey*, 6.
50. Murray et al.
51. Ibid.
52. Ibid.

and mechanic arts…"[53] Georgia accepted its public domain lands, or landscript, in 1866 and sold the property for $243,000 in 1872.[54] As a result, the Georgia State College of Agriculture and Mechanical Arts, located in Athens at the University of Georgia, opened its doors on May 1, 1872. It featured three departments: agriculture, engineering, and applied chemistry.[55]

Military Training and the Reserve Officers' Training Corps (ROTC)

One of the provisions of the 1862 Morrill Act was that Land Grant Colleges include military tactics and training as part of their curricula. Over time, military training evolved into the contemporary Reserve Officers' Training Corps (ROTC). The idea for the program first emerged at Norwich University, also known as the Military College of Vermont, under the leadership of former West Point instructor Captain Alden Partridge. The University promoted the idea of the 'citizen soldier,' a man who might be trained to act in a military capacity when needed but also capable of serving as an integral part of civilian society during peacetime.[56] The present-day ROTC was established as an extension of this idea, replacing local militia forces with standardized regimented training provided on college campuses, as a result of the National Defense Act of 1916. While many universities required compulsory ROTC training for all male students until the 1960s, today training is optional at civilian colleges. Successful participation in ROTC programs offers several benefits, including money towards tuition and employment following completion of the degree program.

Since the early nineteenth century, the University of Georgia has offered military training to students. The first military training was provided following a state law passed by the legislature in 1807 that required all able bodied men, students, and faculty, to participate in a state muster that would occur five times each year. Eventually these musters led to the organization of military companies by the students. The first were known as the College Riflemen and Franklin Blues. These student companies participated in the War of 1812 and the Seminole War of 1817–1818. Later, another company known as the College Volunteers participated in the Texas struggle for independence in the 1830s.[57]

University students and alumni also participated in military activities during the Civil War. Several units composed of students from Athens, including the Mell Rifles and Lipscomb Volunteers, were organized in 1863. Those leaving to fight were referred to as the "Rock Boys from Athens." Those who were unable to join the ranks established a unit called the Mitchell Thunderbolts that drilled three days a week and guarded prisoners during the war. Several alumni were

53. Ibid.
54. Willard Range, *A Century of Georgia Agriculture, 1850–1950* (Athens, Georgia: University of Georgia Press, 1954).
55. New South Associates, Inc., *Architectural Survey,* 6–7.
56. Col. Russell Holden, *Norwich University Cadet Handbook* (Northfield, Vermont: Office of the Commandant, Norwich University, 2013), ii.
57. University of Georgia, "The ROTC and the University of Georgia over the Years," *Army ROTC,* http://www.armyrotc.uga.edu/page.asp?pg=Battalion_History, accessed October 6, 2017.

recognized for distinguished contributions to the Confederate Army, including Henry L. Benning, who graduated in 1864, and became a general, as well as John B. Gordon, who attended the University of Georgia in 1851 and also became a general. Forts Benning and Gordon are named in their honor.[58]

After the United States declared war on Germany in April, 1917, the entire senior class volunteered for service. The University bestowed their degrees before they finished their program by special action of the Board of Trustees. During their graduation ceremony, the seniors received diplomas wearing khaki uniforms rather than the traditional cap and gown.[59] World War I would have a profound impact on UGA. As noted on the ROTC web site: "During the two years of American participation in World War I, the University was organized with military overtones and greater emphasis was placed on military rather than academic education. There were 3152 Georgia graduates who participated in World War I, almost half of whom were officers, and of that number 46 were killed. Memorial Hall (UGA 670) was built with funds which Georgia alumni raised following the war. It was dedicated in 1924 to those who had given their lives during World War I."[60] Herty Field served as a military drilling site during this period. Following World War I, students continued to drill twice per week in their blue uniforms.

The Army ROTC was officially established at UGA on June 30, 1919, by Chancellor David Barrow in response to the National Defense Act of 1916. On October 8, 1919 a cavalry unit was established that remained active until World War II. In 1924, UGA was placed on the War Department's list of distinguished colleges for the quality of the military training offered at the school.[61]

In 1931, the Armory, now known as the Military Science Building (UGA 61), was built on the Athens Campus to support the Army ROTC at the University. The role of the ROTC was described at the time as for "military defense, developing character, leadership, and good citizenship, which is the proper aim of all education."[62] Beginning in 1932, the University began to require able bodied students to complete two years of ROTC training. A senior program was also offered to those who met certain criteria. Those who were selected to the program attended summer training camp at either Fort Oglethorpe in Tennessee or Fort McClellan in Alabama, and were later offered commissions in the US Army.

In anticipation of the United States entry into World War II, by 1940, ROTC graduates were able to enter the service immediately after receiving their commissions. In 1943, the UGA Medical School activated the Army Specialized Training Program (ASTP) that prepared students for military service after graduation. With completion of the ASTP and a medical school degree, students were offered a commission as first lieutenant in the Army Medical Corps.

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58. Ibid.
59. Ibid.
60. Ibid.
61. Ibid.
62. Ibid.

Following a nine-month internship in a civilian hospital, they could enter active duty. In 1944, the University combined cavalry and infantry regiments into a single basic training program at the request of the War Department. A total of 8,863 UGA graduates served in the armed forces during World War II.[63]

In 1947, the Air Force was established, and a separate ROTC was formed at UGA for related training. ROTC training remained a requirement for students until it was made optional in 1969. Women were first allowed to fully participate in the ROTC program in 1972. Both the Army and Air Force ROTC programs at UGA remain popular and an active part of the University. The training afforded by the program has been cited as important to the careers of numerous well known state and national leaders.

Examples of historic resources on the Athens Campus related to this context include:

- Memorial Hall, 1924 (UGA 670)
- Military Science Building (Army ROTC building, Armory, 1931 (UGA 61)
- Old College, which was used as military barracks during World War II (UGA 130)
- Herty Field, which was used for military drills after 1911

Agricultural Education and Colleges

Agricultural education encompasses the study of applied sciences, such as biology, chemistry, and physics, as they pertain to farming, and related topics in business management. One of the goals of agricultural education is to apply the knowledge and skills learned in several different disciplines to the practice of agriculture. As an outgrowth of the passage of the Morrill Act in 1862, it was the Land Grant Colleges that were initially concerned with developing curricula for agricultural education. Over time, the number of agricultural colleges has grown, and there are several that are independent of the land grant system.

The philosophy of agricultural education has evolved and progressed substantially since the 1860s. Today, agricultural education at its broadest level involves food systems, environmental issues, and life skills. It also recognizes the value of, and relies heavily on, experience as the context in which knowledge and skills are learned. Agriculture is taught within the context of a global society, with the application of scientific and business principles and problem-solving strategies. The areas of study have expanded from the three pillars of the land-grant colleges to include horticulture, forestry, conservation, natural resources, agricultural products and processing, production of food and fiber, aquaculture and other agricultural products, mechanics, sales and service, economics, marketing, and leadership.

The early roots of agricultural education in America date to the late eighteenth century, and were derived from British practices. The Philadelphia Society for Promoting Agriculture, founded in 1785, was the brainchild of Benjamin

63. Ibid.

Franklin, who was dedicated to promoting agricultural education. The founders of the Society believed that America would not become a great nation unless its farmers were successful. George Washington was an honorary member, and devoted farmer, who shared the results of agricultural experiments conducted at Mount Vernon with the Society. The organization played a key role in developing many of the farming methods and institutions that influenced American agriculture during the nineteenth century, such as crop rotation and management of soil fertility, through their efforts to explore best farming practices. In addition to hands-on farming, the society supported the establishment of important research and educational institutions, including Pennsylvania State University, the School of Veterinary Medicine at the University of Pennsylvania, and the United States Department of Agriculture.[64]

In addition to the advancement of agricultural education that occurred as a result of the Morrill Act, the precepts of agricultural education continued to evolve as part of the early twentieth century progressive movement, which sought to make rural improvement a national issue. The National Society for the Promotion of Industrial Education, formed in 1906, was instrumental in convincing many states to pass vocational training acts. In 1907, President Theodore Roosevelt observed, "We of the United States must develop a system under which each citizen shall be trained so as to be effective individually as an economic unit and fit to be organized with his fellows so that he and they can work in efficient fashion together."[65]

In a related effort, Roosevelt, in 1908, appointed the Country Life Commission to investigate ways to improve rural life. In the early twentieth century, farmers were often isolated settlers, separated by significant distances and bad roads. While the industrial system continued to grow, agricultural production lagged. For conditions to improve, it would be necessary for the infrastructure of rural life to be strengthened, along with agricultural production methods. Roosevelt's commission listed several factors that negatively affected rural families. Chief among them was the need for education. The issue was taken up by many reformers who sought to address the need to advance life for rural residents, the majority of whom were farmers. Books such as Liberty Hyde Bailey's *The Training of Farmers* (1909) *and* Aretas Nolan's *The Teaching of Agriculture* (1918) suggested that the fundamental purpose of the nation's system of agricultural education was to insure a better agriculture and enhance rural lifeways for farmers. Agricultural education was seen as instrumental in providing the farmer with the tools and skills needed to resourceful and profitable. As a secondary benefit, successful farmers would help develop strong rural communities. The application of agricultural education was thus seen as essential, with a need to broaden it from the college level through the secondary education system, to begin at the elementary level. The purpose, as noted by Aretas Nolan, was to consider agricultural education as part of a larger educational picture that would produce "an educated country gentleman who

64. The Philadelphia Society for Promoting Agriculture, "Overview," http://pspaonline.com/history/overview/, accessed March 4, 2016.
65. Theodore Roosevelt, "The Man who Works with his Hands" presented at the semi-centennial celebration of the founding of Agricultural Colleges in the United States, Lansing, Michigan, May 31, 1907.

works with his hands and gathers about him all the best things which civilization afford."[66] In order to ensure good education, Nolan argued, it would be necessary to train good teachers. The well-educated vocational agricultural teacher, according to Nolan, must be a thorough scientist and a technically trained agriculturalist. He should also have studied rural sociology, agricultural economics, public speaking, and have a thorough understanding of educational principles, psychology, and management.[67]

These ideas were supported through passage in 1914 of the Smith-Lever Act, and in 1917 of the Smith-Hughes Act. The Smith-Lever Act created the Cooperative Extension Service of the U.S. Department of Agriculture, which formalized the emerging youth agricultural and home economics education in rural areas of the Midwest. The Smith-Hughes Act allocated federal funds to the states for the purpose of promoting agricultural education. These funds were to be matched by state and local funds, and were to be used for the training and salaries of teachers, supervisors, and directors of agriculture. Educational programs were to include home economics, agricultural economics, and industrial subjects. The Act also provided for a Federal Board for Vocational Education. To receive the funds available, each state had to submit a plan detailing how they would spend it. One of the requirements was that all students had to participate in a work experience focusing on livestock and crop projects outside of the regular school day.

With the growth of agricultural education programs, and their connection to experiment stations and the cooperative extension system, agricultural education began to move in a more scientific direction during the second third of the twentieth century.

The role of federal government in supporting and promoting vocational education, particularly agricultural education, continued to grow during the twentieth century. In 1963, Congress passed the National Vocational Education Act that broadened the scope of the original Smith-Hughes Act by adding flexibility, providing for career counseling and employment training, expanding the age groups covered, and providing for the needs of people with special educational needs. The objectives of this new act were:

1. To develop agricultural competencies needed by individuals engaged in or preparing to engage in production agriculture.

2. To develop agricultural competencies needed by individuals engaged in or preparing to engage in agricultural occupations other than production agriculture.

3. To develop an understanding of, and appreciation for, career opportunities in agriculture and the preparation needed to enter and progress in agricultural occupations.

4. To develop the ability to secure satisfactory placement and advance in an agricultural occupation through a program of continuing education.

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66. Aretas W. Nolan, *The Teaching of Agriculture* (Boston, Massachusetts: Houghton Mifflin Co., 1918).
67. Ibid., 163.

5. To develop those abilities in human relations that are essential in agricultural occupations.
6. To develop the abilities needed to exercise and follow effective leadership in carrying out occupational, social, and civic responsibilities.

Not all educators, however, agreed that vocational agriculture education was a good use of money, and public and political debate regarding the value of vocational agricultural education continued. Since the 1970s agricultural educators have attempted to more directly define the philosophy of agricultural education. Some believe that agricultural educators should be pragmatists and emphasize learning by doing, individual self-awareness, leadership and citizenship development. Others felt the functions of agricultural and agribusiness education should be to educate individuals for employment in the fields of agriculture and agribusiness, provide avocational agricultural course work, and address the world's food crisis by recognizing the role of the farmer as part of an integrated part of a dynamic world system. Thus, the image of agricultural education emerged as an amalgam of realist-based philosophy and empirical experience. Today, agricultural educators see themselves as research project directors and their students as discoverers, with education a process of problem solving.

In part, agricultural education has had to change to meet the changing demands of its clientele. Agricultural education is based on three critical components: technical agriculture, experiential learning, and human development. Even though the philosophy of agricultural education has evolved to a great degree since 1862, the principles that form the foundation for agricultural education have not changed: providing up-to-date technical skills and knowledge in agriculture; conducting experiential learning activities in the real world or agricultural careers; and involving students in leadership and personal development activities at the local, state, and national levels. However, the expansion of careers in the agriculture industry has had a significant impact on the curriculum.

Today, there are more than 8,000 secondary school agricultural programs across the United States that serve more than 500,000 students focused on career education in agriculture. Beyond the secondary school agriculture programs, community colleges and universities provide excellent opportunities for students to specialize and gain skills and knowledge in agriculture. University programs in agricultural education focus on teaching and learning processes that prepare students for professional positions in education, agri-industry, and public service agencies.

University of Georgia College of Agricultural and Environmental Sciences (1872–present)

The University of Georgia's history as an agricultural college follows many of the trends occurring throughout the nation between the mid-nineteenth century and the present. After the State College of Agriculture was established in 1872, it initially struggled with enrollment, especially in agricultural studies, and was unable to secure sufficient funding to purchase land adequate for an experimental farm. It was not until the college was given Rock College, a tract of land with a

stone building a mile west of the main campus in Athens, for use as an experimental farm that the college began to be succeed. Unfortunately, the Rock College never proved suitable for use as an experimental farm and has been adapted for several purposes since, including a State Normal School and a United States Navy Supply Corps School.[68] In 1889, the State College lost another bid for an experimental farm when Griffin was selected over Athens as the site of the state's agricultural experiment station as funded through the Hatch Act in 1887.[69]

Funding for agricultural education afforded by the Morrill Act of 1890 bolstered the State College budget and provided money for branch colleges with agriculture schools, such as the future North Georgia College and State University in Dahlonega. It also provided funds to create an agricultural and mechanical school for African Americans.[70] At the same time, the funding posed a threat in that the State College might be required to move from Athens to Griffin to join the experiment station, since the agricultural program on the main campus continued to struggle. This threat led the administration to improve the school by hiring more qualified professors and recruiting students to increase enrollment numbers.[71]

However, it was not until philanthropist, George Peabody Wallace, helped State College acquire 390 acres of land to the south of the university's campus in 1905, and another 350 acres in 1906, that Athens afforded sufficient means and land to properly address the needs of agricultural education, including livestock and crop production, and research and demonstrations.[72]

Georgia State College of Agriculture President Andrew McNairn Soule was instrumental in integrating the agriculture college with the University of Georgia, and forming the College of Agriculture soon thereafter. During his tenure, the agricultural college began to thrive; as a result, Soule added the Schools of Forestry, Veterinary Medicine, and Home Economics to the program. Enrollment numbers increased, and the College of Agriculture's campus, also referred to as South Campus, developed as an experimental farm. In 1908, the university completed construction of Conner Hall to house agriculture studies.[73]

68. Murray et al.
69. Range.
70. Ibid.
71. New South Associates, Inc., *Architectural Survey,* 7.
72. Murray et al.; New South Associates, Inc., *Architectural Survey,* 7.
73. New South Associates, Inc., *Architectural Survey*, 7.

Figure 30. Conner Hall under construction. (Source: University of Georgia Extension.)

Although it remained a separately administered entity, the Georgia Experiment Station at Griffin and the College of Agriculture increasingly cooperated on research endeavors. The Cooperative Extension established at Griffin following passage of the Smith-Lever Act in 1914 began to present research-based agricultural information to the farmers in Georgia's many counties, suggesting the need to work closely with the college on innovations.[74]

The College of Agriculture at University of Georgia saw its enrollment grow exponentially following World War II when many Americans entered colleges and universities through the G.I. Bill.[75] The experiment stations were assimilated into the University of Georgia system in 1950. Since 1950, the College of Agriculture's campus has grown and several degree programs have been added, including master's degree programs. Innovative research, especially in the poultry sciences, has put the University of Georgia on the map. Today, the college includes studies in environmental sciences and offers twenty-two majors, four undergraduate degree, four master degree programs, and doctorates in more than ten fields.[76] The experiment stations at Griffin and Tifton also now offer degree programs.

Historic buildings associated with the Athens Campus related to this context include:

- Moore College, 1874-1876, originally housed the State College of Agricultural and Mechanical Arts (UGA 25)
- Conner Hall, 1908 (UGA 1011)
- Barrow Hall, 1911 (UGA 1021)
- Hardman Hall, 1918 (UGA 1031)

74. Ibid.
75. Murray et al.
76. College of Agricultural and Environmental Sciences, "CAES History | UGA." *About CAES* (2012), http://www.caes.uga.edu/about/history.html, accessed March 10, 2016.

- Tucker Hall, 1961, built as a dormitory to house agricultural program students (UGA 1250)

Experiment Stations and Experimental Farms

In 1887, the Hatch Act supported the establishment of a national network of agricultural experiment stations. The Hatch Act provided federal funds for agricultural research at state colleges and universities. This allowed the United States, through research, to become the most effective producer of food and fiber in the world. In 1889, Georgia established the Georgia Experiment Station at Griffin in response to the Act. It remains an important site of scientific investigation supporting the needs of farmers statewide today. More than 100 years after passage of the Hatch Act, research conducted at the University of Georgia through the experiment stations at Griffin and Tifton continue to enhance food, fiber, environmental and natural resource activities throughout the state.

The Hatch Act was the result of lobbying conducted during the early to mid-1880s. During this period, the newly appointed federal Commissioner of Agriculture, Norman Jay Colman of Missouri, led a coalition of land grant colleges to write legislation for the creation of agricultural experiment stations. Colman suggested that scientific investigation was a necessary complement to agricultural education. His persuasive argument spurred enthusiasm within Congress for the legislation, while also garnering support from the land grant colleges.[77] Although favorably received in Congress, the bill languished. It was not until House Agricultural Committee chairman, William H. Hatch of Missouri, indicated how strong the support of the land grant colleges was that a bill made it to the House floor. Due to the revisions proposed by several members of Congress, the final bill was much amended from the original language proposed by Hatch and his colleagues. However, it was signed into law by President Grover Cleveland on March 2, 1887.

The act provided federal funds totaling $15,000 to each state in order to establish an agricultural experiment station, "to conduct original researches or verify experiments . . . bearing directly upon the agricultural industry of the United States . . . ."[78] Although the Hatch Act stipulated that the stations were to be established under the direction of a land-grant college, concerns over states' rights and the site-specific nature of agricultural production, the Act was amended to allow the states to establish a station not associated with its agricultural college.[79] The federal government's involvement was thus limited to providing financial support and guidance.[80] In any case, the Hatch Act was instrumental in providing support for localized agricultural education and scientific investigation.[81]

77. Norwood Allen Kerr, *The Legacy: A Centennial History of the State Agricultural Experiment Stations, 1887–1987* (Columbia, Missouri: Missouri Agricultural Experiment Station, University of Missouri-Columbia, 1987).
78. Ibid.
79. Ibid.
80. New South Associates, Inc., *Architectural Survey,* 10.
81. Kerr.

The idea of establishing experiment stations was not new in 1887. Agriculture was an evolving field that had already benefitted from the application of scientific principles to crop rotation, soil building, and soil erosion control methods devised by experimentation during the antebellum period. The majority of farmers, however, did not have the time or resources to spend on untested farming practices. The idea of using experimental farms to address the problems associated with agricultural in different regions of the country emerged from this need, and were promoted by societies for the promotion of agriculture formed in South Carolina, Pennsylvania, New York, Massachusetts, and Connecticut. Some even offered prizes for individual research and experimental gardening.[82] In addition to farming societies, agricultural periodicals, such as *Southern Cultivator*, discussed local trials of farming techniques, available information on laboratory investigations, and local topics and issues pertaining to agriculture and farmers.[83]

Periodicals also promoted the innovative research being conducted in Europe. One of the most influential agricultural innovators was German scientist, Justus von Liebig. His 1840 publication *Organic Chemistry in Its Application to Agriculture and Physiology* presented theories of plant growth and soil fertility that were closely read by the American scientific community.[84] American students traveled to Germany and England to attend classes and participate in experiments detailed in these periodicals. While attending these programs, American students witnessed and participated in efforts that involved testing in the fields followed by analysis in the laboratory. The concept of combining a laboratory with a farm plot that was not associated with an academic institution, as advanced by German government in 1852, was introduced to American farmers by the periodicals as well as these students.[85]

Nonetheless, most American farmers remained traditional in their practices and distrustful of formal education and training. Yale University was one of the leading institutions in the field of agricultural education under the direction of John Pitkin Norton, who had studied under James F.W. Johnston in Scotland in 1844. Norton established an agricultural teaching laboratory at Yale, and developed ideas for an effective agricultural curriculum.[86] Despite Norton's work at Yale and advocacy throughout the Northeast for formal agricultural education, it remained difficult to overcome a distrust of institutional education; his recommendations for establishing experiment stations were neither pursued in the legislature nor promoted by farmers in his state.[87]

It was during the 1850s, however, that one of Norton's students, Samuel W. Johnson, wrote letters to agricultural journals arguing for continued scientific research in plant physiology and soil composition. Johnson was also able to win the trust of many farmers, where Norton had not, by successfully showing how agricultural research could aid them in achieving added success on their farms.[88]

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82. Ibid.
83. Ibid.
84. Ibid.
85. Ibid.
86. Ibid.
87. New South Associates, Inc., *Architectural Survey,* 9.
88. Kerr.

In 1857, Johnson was appointed as the chemist to the Connecticut State Agricultural Society in an effort to protect its members from being sold artificial fertilizers. Johnson hoped to expand his duties to include oversight of a full-scale experiment station, but the onset of the Civil War led to a delay in his plans. After the Civil War, Johnson revived his efforts after being appointed state chemist for the State Board of Agriculture. Impressed with the research Johnson completed in order to improve the quality of fertilizers sold in Connecticut, the Board of Agriculture introduced a bill to the state legislature to finance a state agriculture laboratory in 1875.[89] In 1876, after Wesleyan University offered funding and use of the university's laboratories in return for a two-year appropriation of $5,600 from the state, the country's first agricultural experiment station was opened in Connecticut.[90]

Experiment Stations in Georgia

Georgia Experiment Station, Griffin

Since 1889, the Georgia Experiment Station at Griffin has played an important role in the development of modern agriculture within the South. Early research focused on fertilizers and mitigating soil erosion. Over time, a much broader program of agricultural and environmental science emerged at Griffin. By addressing the specific problems associated with many Georgia crops, the work at Griffin improved the state's agri-business. Successful innovations have included the development of the deep furrow method of planting winter oats, the first formulated feed diets for dairy and beef cattle, and the development of new varietals of seed, such as Empire cotton, that produced higher yields, stronger plants, and better drought tolerance. Jasper Guy Woodroof organized the station's food science department in the 1940s. Woodroof, for whom one feature of the station are named, later became known as the "Father of Food Science" and developed the technology for frozen foods. Today, the experiment station is a premier agricultural research center that investigates issues as varied as production agriculture, water quality, and genetics. Researchers at the station focus on five broad areas: crop and pest management, food safety and quality, environmental and natural resources, urban agriculture, and applied plant genetics.

89. Ibid.
90. Ibid.

Figure 31. Empire cotton was developed at the Georgia Experiment Station at Griffin. (Source: University of Georgia Extension)

Locating the state's first experiment station at Griffin, however, was the result of much debate and lobbying of the state legislature. After passage of the Hatch Act in 1887, an existing Griffin State College assumed that the experiment station would be located in Athens since the legislation stated that such facilities should be established in association with a state's College of Agriculture and Mechanic Arts.[91] However, based on protests lodged by citizens and others against locating both the agricultural college and the experiment station in Athens, the General Assembly decided to locate the experiment station in the county, community, or individual submitting the best offer, and appointed a committee to oversee the selection process.[92] The offers were to come from property located in the central part of the state that featured an accessible, healthy location, and land suitable for conducting agricultural experiments.[93] Because the act establishing the Georgia Experiment Station also proposed that there be separate locations for the station and for the farm, the committee would have to approve two appropriate tracts of land.

In response, five counties sent delegations to Atlanta to present bids, including Clarke, Spalding, Coweta, Green, and Morgan. The committee conducted site inspections following the presentations. A vote on the location was not held until May 7, 1889.[94] By the time the vote was held, the legislature had amended the Act to allow the farm and the station to be located in the same place should the committee determine that offered the best option. In their vote, the committee decided that Griffin had presented the best offer. Their package included an allocation of $4,000 for buildings, and a site—the Bates Farm—containing 130 acres of farmland north of the town of Griffin located near the junction of three railroad lines: the Central of Georgia; the Georgia Midland and Gulf; and the Savannah and Griffin. Based on their proposal, Griffin received both the experiment station and farm. Mr. J.M. Kimbrough was soon elected as the station's agriculturist, and R.J. Redding the station's first director.[95] By July 1,

91. Murray et al.
92. Higgins et al.
93. Murray et al.
94. Higgins et al.
95. Ibid.

Kimbrough had reported to the station and work had begun clearing fields of stumps and bushes, installing drainage systems, and preparing for fall planting.[96]

Unfortunately, the state did not provide adequate funding to operate the experiment station. Between 1888 and 1892, the legislature provided only $15,000, and this was targeted for building construction. The remainder of the station budget was cobbled together from federal government contributions resulting from the Hatch Act, and income from the sale of the farm's produce and other products.[97] Nonetheless, the scientists in residence at the station quickly began studying a variety of field crops and fertilizers, tested new farming implements, and attempted to find varieties of small fruits suitable to grow in Georgia.[98] By 1900, the station had begun to experiment with tobacco cultivation, dairying, and cheese making, as well as hybridization of cotton varieties to improve yields.[99] Despite the success of its programs, the state cut back the already meager financing of the station during the early twentieth century, limiting the amount of research and the station's output of technical bulletins.

In 1932, the Georgia Experiment Station became part of the University System of Georgia. This change was instrumental in improving the financial condition of the station as annual budgets were determined by the Board of Regents rather than the General Assembly. Through the university system, the Griffin experiment station was able to secure the funds to expand the campus and its research. Areas of investigation included food processing and storage, plant and animal nutrition, home economics, and agricultural economics.[100] Although overseen by the Board of Regents, the station remained autonomous until 1950, when it was made part of the College of Agriculture at the University of Georgia.[101] In 2005, the Griffin campus became more than a research facility as it welcomed its first class of undergraduate students.[102]

Today, the Georgia Experiment Station in Griffin is one of the leading agricultural research centers in the Southeast. While addressing research, extension, and the needs of the agricultural community, campus programs still contribute to the original state land grant college mission: to teach, to inquire, and to serve.[103] The campus' research and coursework focuses on food safety and quality enhancement, biotechnology and genetics, crop and pest management, urban agriculture, and environmental and natural resources.[104]

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96. Ibid.
97. Range.
98. Ibid.
99. Ibid.
100. University of Georgia, *Fifty-Seven Years of Service* (1946). On file in the Vertical Files at the University of Georgia, Griffin Campus Library, Griffin, Georgia.
101. Max H. Bass and Myron B. Parker, *The UGA Coastal Plain Experiment Station—The First 75 Years* (Tifton, Georgia: Coastal Plain Experiment Station, 1993).
102. College of Agricultural and Environmental Sciences, "History of the Griffin Campus," *University of Georgia College of Agricultural & Environmental Sciences Profile and History* (2011a), http://www.caes.uga.edu/campus/griffin/profile/history.html, accessed March 10, 2016.
103. College of Agricultural and Environmental Sciences 2011a.
104. Ibid.

Numerous historic buildings and landscape features are associated with the property (see the individual campus assessment for the Georgia Experiment Station/Griffin Campus for more information).

Coastal Plain Branch Experiment Station, Tifton

When Tift County was created in 1905, Georgia's Coastal Plain was dominated by stands of pine cultivated by the turpentine industry. Despite the prevalence of the turpentine industry, south Georgia remained a region of small farmers. During the early twentieth century, south Georgia farms focused on raising livestock and a variety of crops.[105] The specific challenges associated with south Georgia farming included a long growing season, hot summers, and loamy soils, which were very different from the conditions found in the Piedmont to the north. Coastal Plain farmers required different crops and farming practices from those used elsewhere in the state. As such, it was determined that an experiment station targeting the needs of south Georgia farmers and the conditions associated with the Coastal Plain physiographic province was in order.

In 1918, the Georgia Land Owners' Association, an organization led by Captain H.H. Tift and William Stillwell, began to lobby for agricultural research in the Coastal Plain. By this time, agricultural research was no longer controversial. As such, the Georgia Land Owners' Association did not need to justify the idea of the experiment station so much as to lobby for one in their region.[106] In response to their arguments, the State Legislature passed Act Number 457, approved on August 19, 1918 by the Georgia General Assembly, that established an experiment station for the ". . . purpose of making scientific investigation and experiment respecting the principles and applications of agricultural science, and . . . soil and climate conditions in . . . [the] coastal plain region of the State."[107]

105. College of Agricultural and Environmental Sciences, "Campus History." *Tifton Campus: Profile & History* (2009), http://www.caes.uga.edu/campus/tifton/profile/history.html, accessed March 10, 2016.
106. Bass and Parker.
107. Ibid.

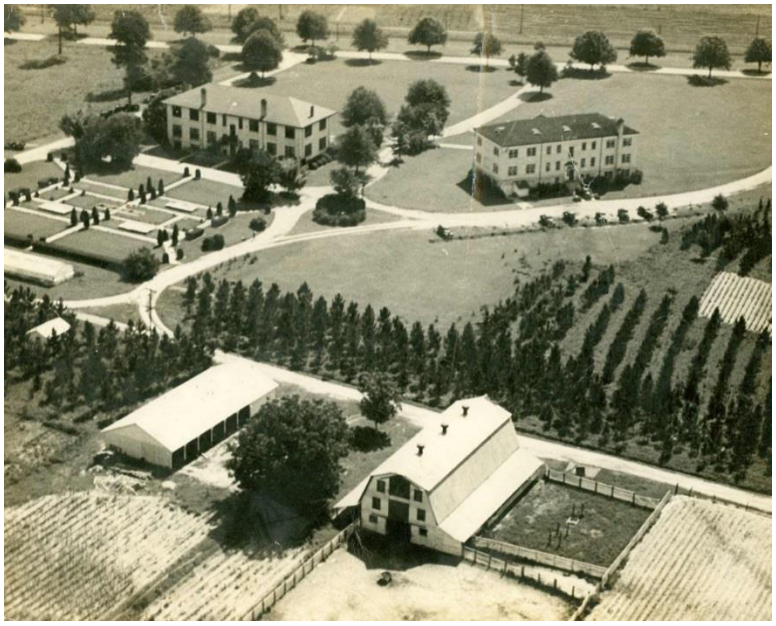

Figure 32. Coastal Plain Experiment Station at Tifton. (Source: University of Georgia Extension)

Like the station at Griffin, the Coastal Plain Branch Experiment Station was autonomous and administered under the direction of a board of trustees that included the Governor and the Commissioner of Agriculture. Also following the model of Griffin, the Board advertised for bids to locate the new experiment station. The Board of Trustees received bids from cities throughout the Coastal Plain region, from Savannah to Bainbridge. However, Tifton quickly emerged as a clear favorite due to its central location within the Coastal Plain, position along a rail center, and fertile soils.[108] Additionally, Abraham Baldwin Agricultural College was located in Tift County. H. H. Tift enhanced Tifton's bid by donating 206 acres of farm land near ABAC and $25,000 for start-up expenses.[109] After its selection, the Coastal Plain Branch Experiment Station at Tifton opened in 1919 under the direction of Silas H. Starr. It was the first station located within the Coastal Plain physiographic province within the United States.[110]

Unlike Griffin, the Coastal Plain station was well funded from the start, allowing it to quickly construct the necessary buildings on its campus and to adequately develop its research program. Initial research at the station consisted of varietal testes of wheat, rye, oats, cotton, corn, cowpeas, velvet beans, millet, and other forage crops.[111]

In 1932, along with the Georgia Experiment Station, the Coastal Plain Branch Experiment Station became part of the University System of Georgia. The State Government Reorganization Act, authorized on August 28, 1931, and effective on January 1, 1932, placed the Coastal Plain Experiment Station in the University System, under the control of the University System of Georgia Regents. Closer

108. Ibid.
109. Ibid.
110. College of Agricultural and Environmental Sciences 2009.
111. Sam Burgess, *The Establishment and Development of the Georgia Agricultural Experiment Stations* Special Publication 24 (Athens, Georgia: The University of Georgia College of Agriculture Experiment Stations, November. 1983). [page #]

cooperation between the experiment stations, the University of Georgia's College of Agriculture, and the Agricultural Extension Service was to result from the reorganization.

The experiment station continued to grow under the guidance of the Board of Regents. By 1945, the station had a research staff of thirty-five involved in experiments on more than 5,000 acres of land.[112] Over the course of the twentieth century, the station's research expanded to include livestock, primarily cattle and pigs, in addition to the ongoing crop research.

Between 1945 and 1950, the station added eleven researchers to its staff, and opened a branch station in Attapulgus.[113] In 1950, the Coastal Plain Branch Experiment Station became part of the College of Agriculture at the University of Georgia, along with the Georgia Experiment Station.

While research at the Coastal Plain Branch Experiment Station remains dedicated to the crops in cultivation at the time it was founded, research has continued to evolve to include irrigation, value-added processing, vegetables, aquaculture, tree fruits and nuts, turf grasses, and ornamental horticulture crops.[114] Today, Tifton is comprised of over 7,000 acres of land, which includes three research farms in Tift County and research farms and centers in Alma, Attapulgus, Camilla, Midville, Lyons, and Plains.[115] The station also provides community outreach services through the University of Georgia's Cooperative Extension Office and the Rural Development Center, as well as undergraduate and graduate degrees.

Numerous historic buildings and landscape features are associated with the property (see the individual campus assessment for the Coastal Plain Branch Experiment Station/Tifton Campus for more information).

Georgia Mountain Research and Education Center, Blairsville

The Georgia Mountain Branch Experiment Station, also known as the Georgia Mountain Research and Education Center, is located in Blairsville, Georgia. Established in 1930 as a branch of the Georgia Experiment Station on leased land, the property is located in the Blue Ridge Mountain and extends over 415 acres. The original leased tract was 210 acres and was mostly wooded, with 35 acres of cultivated fields. The station was initially focused on horticulture involving fruits and vegetables, as well as forestry.[116] The Board of Regents purchased the property in 1932 before making permanent improvements and expanding research to include feed grains, forages, soil fertility, dairying, and sheep.[117] Under the New Deal programs conducted during the Great Depression,

112. Nancy Joan Bunker and Tom Dupree, *100 Years: A Century of Growth through Agricultural Research* (Athens, Georgia: University of Georgia, College of Agriculture, Experiment Stations, 1975).
113. Burgess.
114. Brad Haire, "Coastal Plain Experiment Station, Tifton." *New Georgia Encyclopedia,* http://www.georgiaencyclopedia.org/ articles/businesseconomy/coastal-plain-experiment-station-tifton, accessed March 10, 2016.
115. Ibid.
116. Higgins et al.
117. College of Agricultural and Environmental Sciences, "Profile & History of the Georgia Mountain Research & Education Center," Georgia Mountain Research and Education Center (2013b), http://www.caes.uga.edu/center/gmrec/profile.html, accessed March 10, 2016.

the Civilian Conservation Corps constructed a soil test laboratory at the station, while the Federal Emergency Relief Administration built a fruit stand and community cannery, helping to better connect the station with the surrounding community of rural Union County. In 1938, the station entered into a cooperative agreement with the Tennessee Valley Association (TVA) due to its location within the Tennessee River basin.[118] As part of the agreement, TVA helped to finance the research work at the station while the station promoted TVA fertilizers to local farmers.[119]

Like Griffin and Tifton, the Georgia Mountain Research and Education Center became part of the College of Agriculture of the University of Georgia in 1950. Research conducted between 1950 and 1990 resulted in gains in apple production, forage evaluations for sheep production, soil-test-crop-yield correlations, variety testing of horticulture crops, beef cattle stocker feeding, and swine production.[120] The station's research also revealed previously unknown information about the Black Rot fungus associated with apples. Today, the station oversees forty-one research or extension projects involving thirty University of Georgia faculty members.[121] The projects involve apples, asparagus, blueberries, field corn, forages, pumpkins, and woody ornamentals. Additionally, the Community Council of the station funds a series of adult research seminars for the home gardener and farmer, has installed an Appalachian Ethnobotanical Garden and heirloom garden on the station, and initiated hands-on field experiences for school children.[122]

Numerous historic buildings and landscape features are associated with the property (see the individual campus assessment for the Georgia Mountain Research and Education Center for more information).

College Experiment Station, Athens

The College Experiment Station in Athens was the last of the state's three principal experiment stations to officially be established in 1950. This official recognition followed years of experimentation conducted by the College of Agriculture on the farms owned by the University near the Athens campus.[123] The earliest experiments were likely conducted circa 1907 when faculty/staff began to establish experimental plots on the southern end of campus along South Lumpkin Street.[124]

The formal establishment of an official experiment station at the University of Georgia's Athens campus was a component of the reorganization of the College of Agriculture in 1950, which also served to bring all of Georgia's experiment station under the administration of the College of Agriculture. As such, the research programs at the stations began to be coordinated with one another and

118. Ibid.
119. Higgins et al.
120. College of Agricultural and Environmental Sciences 2013b.
121. Ibid.
122. Ibid.
123. College of Agricultural and Environmental Sciences, "Agricultural Experiment Stations." Research Experiment Stations (2011b), http://www.caes.uga.edu/research/stations.html, accessed March 10, 2016.
124. Ibid.

with the educational curriculum.[125] An improved system of communication between the stations and branches was a benefit of the consolidation of the stations within the university system. The College Experiment Station in Athens became the headquarters of the University of Georgia Experiment Stations, helping to strengthen the College of Agriculture.

Today, the College Experiment Station has several facilities on the Athens campus that support teaching and research programs, including the Plant Genome Mapping Laboratory; Soil, Plant, and Water Laboratory; Feed and Environmental Water Laboratory; and the Pesticide and Hazardous Waste Laboratory. Current research projects include food packaging improvement studies, genetic engineering of pest and disease resistant crops, livestock cloning research, and biological control of insect pests.[126]

Northwest Georgia Research and Education Center, Calhoun

In 1951, one hundred farmers in northwest Georgia donated $250 each to purchase land for a regional agricultural experiment station.[127] Through their efforts, 351 acres of land west of Calhoun were acquired to establish the Northwest Georgia Branch Experiment Station. Today, the facility is known as the Northwest Georgia Research and Education Center. The station initially performed research with field crops, forages, and improved pasture plants. Since 1951, the station has grown to include three units extending over 1,586 acres. The Calhoun campus is on a 28-acre parcel within the city limits that is primarily concerned with administration and laboratory research, although the campus also houses a livestock pavilion use for the Calhoun Bull Evaluation Sale, the Calhoun Herd Sale, livestock and poultry judging, and Saddle Club and Red Carpet Cattlemen's Association events. A new station headquarters building, which also houses 4-H and extension services, was constructed at the Calhoun campus in 2013.[128]

The Floyd County unit, located near Rome, Georgia, was transferred to the College of Agriculture and Environmental Sciences in 1966 from the state health department.[129] The 905-acre property is primarily used for beef cattle breeding research and row crop research.

The Gordon County unit, located in the Red Bud community approximately 13 miles east of the Calhoun campus, was acquired in 1996. It features 653 acres and was used for beef cattle research, forages, and organic waste recycling until being leased out.[130]

Southwest Georgia Research and Education Center, Plains

The Southwest Georgia Research and Education Center was established in 1951 through the efforts of a local citizen group that deeded 453 acres to the Sumter County commissioners and then to the Board of Regents. The station's purpose was to stimulate the depressed rural economy by helping area farmers diversify

125. Burgess.
126. College of Agricultural and Environmental Sciences 2011b.
127. College of Agricultural and Environmental Sciences 2013b.
128. Ibid.
129. Ibid.
130. Ibid.

and increase crop yields.[131] The property is consistent with many in the state, characterized by heavy red clay soil. The experiment station was designed to test ways to work with the clay soil, which is difficult to farm but can be productive when carefully managed. The station has since grown to 512 acres. Research focuses on cow breeding and foraging as well as the major row crops of south Georgia: peanuts, cotton, corn, soybeans, sorghum, wheat, canola, peaches, watermelons, and pecans.[132]

Southeast Georgia Research and Education Center, Midville

In 1952, Burke County commissioners purchased a 468-acre tract of land north of Midville that is later ceded it to the University of Georgia College of Agriculture and Environmental Sciences in order to establish the Southeast Georgia Research and Education Center.[133] Although the station originally concentrated on chicken, beef cattle, and dairy research, it is now concerned primarily with row crop research, including peanuts, soybeans, alfalfa, corn, and cotton. The station now sits on 719 acres.[134]

Central Georgia Research and Education Center, Eatonton

During the New Deal, the federal government created the Resettlement Administration in 1935 that was responsible for purchasing sub-marginal, and exhausted, farmland and converting it into pastures, forests, game preserves, and parks.[135] Farmers and tenants removed from the land when it was acquired for the program were initially offered employment on Works Progress Administration projects before the government could resettle them on more productive farm land. Agents from the Bureau of Agricultural Economics, a division of the U.S. Department of Agriculture, were primarily concerned with the land north of the Fall Line, which had been overworked and exhausted, and had been severely eroded. The agents recommended that the federal government purchase and retire more than 100,000 acres located in Jasper, Jones, and Putnam counties within this region.[136]

At the same time, circa 1938, the University of Georgia Board of Regents leased nearly 14,500 acres within the area, mostly in Putnam County. Known as the Eatonton Project, the Board of Regents used the land to establish a Georgia experiment station to conduct research into methods for adapting abandoned farm land to a profitable purpose.[137] The WPA was involved in the work conducted at the station, building and renovating buildings, fences, and roads.[138] Initial research explored the potential for growing timber, fescue, beef cattle, and crops, such as peanuts, oats, soybeans, pimentos, and clover.

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131. Ibid.
132. College of Agricultural and Environmental Sciences, “Southwest Georgia Research and Education Center.” *About CAES: Secondary Organizations* (2010a), http://www.caes.uga.edu/center/southwest.html, accessed March 10, 2016.
133. Bunker and Dupree.
134. New South Associates, Inc., *Architectural Survey,* 16.
135. Range.
136. Higgins et al.
137. Ibid.
138. College of Agricultural and Environmental Sciences, “Central Georgia Research and Education Center.” *About CAES: Secondary Organizations* (2010b), http://www.caes.uga.edu/center/central.html, accessed March 10, 2016.

In 1954, the land was deeded to the Board of Regents by the federal government in order to support continued agricultural research. Ongoing principal areas of research at Eaton involved comparing various grazing methods for beef cattle, forage research, and forest management.[139] Crops tested have included cotton, corn, oats, sorghum, wheat, Bermuda and fescue hay, and millet. Many of the crops were fed to the research cattle or sold to generate income. In 1964, the so-called Eatonton Project was upgraded to a field station and the name changed to the Piedmont Field Experiment Station. It remained under the direction of the Georgia Experiment Station.[140] Within four years, due to improvements and research accomplishments, the station was upgraded to a branch station at which time administration of the station was transferred to Athens, resulting in changes in operation and research as the scientists from the College Experiment Station assumed direction.[141]

Research continues to emphasize the development of forage systems for year-round grazing to produce beef cattle from conception to slaughter, as well as the production of calves for stocking and finishing on forage, as well as examining the relationship between livestock and water quality.[142] With a history of specialized beef cattle research, the management of the station transferred to the Department of Animal and Dairy Sciences in Athens in 2012.[143]

Cooperative Extension Service (Smith-Lever Act of 1914)

On May 14, 1914, President Woodrow Wilson signed into law the Smith-Lever Act, which established the Cooperative Extension system as an outreach mission to the role of the experiment stations. Through this Act, Congress significantly broadened the mission of the nation's land-grant institutions, while also forming a partnership among federal government, state government, and higher education charged with working cooperatively towards the solution of social and economic problems. The Act also suggested a new role for the university as a member of the public domain. As noted above, one of the responsibilities of the Cooperative Extension is administration of the 4-H program and education of young people in farming practices through hands-on experience projects and work programs. Since 1914, Land Grant University Agricultural Extension scientists and professors have moved to the forefront of innovation in U.S. agriculture through continual research and investigation into solving the everyday problems of American farmers, and helping to improve and build upon a dynamic system of food, fuel, and fiber production and delivery. The work of extension and experiment station professionals continue to help address world food shortages and make living off the land a viable alternative in American society. Within the nationwide system of extension and experiment stations, scientists are applying new technology, advanced bioscience, and applied research to uncovering the answers to a wide spectrum of challenging problems.

139. Ibid.
140. Ibid.
141. Ibid.
142. Ibid.
143. New South Associates, Inc., *Architectural Survey,* 17.

In 1962, the McIntire-Stennis Act provided additional federal funding for forestry, natural resources, and environmental research.

For over 100 years, American farmers have benefited from and depended on the advice, research, and input of Cooperative Extension service field personnel, and have looked to experiment stations as a way to gain new knowledge about products and methods related to the industry.

A 2013 study titled "Agbioscience in the Southern United States: The Importance of the Southern Region's Land-grant Extension Service and Experiment Station System," suggests that the Land Grant University Extension Service and Experiment Station System:

> is on the frontline of sustaining and securing the nation's leadership and competitiveness in what is, and will be, 'a sector of core strategic importance for the nation.' This system provides science and technology development and transformational education that keep the Southern Region's agriculture, agribusiness, and associated business sectors at the forefront of innovation, productivity, and competitiveness, which in turn sustains and creates jobs and contributes to a strong regional, national, and global economy. Sustaining the Extension Service and Experiment Station System, further investing in it, and addressing its challenges is of central importance to the economic and social fabric of the nation and the Southern Region.[144]

As noted by Saied Mostaghimi, chair of the Southern Association of Agricultural Experiment Station Directors and Associate Dean for Research and Graduate Studies at the Virginia Polytechnic Institute and State University, "By utilizing the research and development power of our Land Grant Universities, we can develop the knowledge and appropriate technologies to further increase agriculture and forestry production for food, fiber, and fuel, while improving food safety and nutrition, enhancing environmental stewardship, and promoting economic development."[145]

4-H Programs

As noted above the Smith-Lever Act was passed in 1914 that created the Cooperative Extension Service. The Smith-Hughes Act passed in 1917 formalized emerging youth agricultural and home economics education in rural areas of the Midwest, and would result in the establishment of the 4-H program in 1924. The Smith-Hughes Act allocated federal funds to the states for the purpose of promoting agricultural education. These funds were to be matched by state and local funds, and were to be used for the training and salaries of teachers, supervisors, and directors of agriculture. Educational programs were to include home economics, agricultural economics, and industrial subjects. The Act also provided for a Federal Board for Vocational Education. To receive the funds

144. The University of Georgia was one of the southern universities that sponsored the study. See http://www.stateconservation.org/Arkansas/article/Study-Indicates-Extended-Value-of-Extension-Service-and-Experiment-Stations/919, accessed March 4, 2016.
145. Arkansas Land Conservation Assistance Network. "Study Indicates Extended Value of Extension Service and Experiment Stations," March 21, 2013, http://www.stateconservation.org/Arkansas/article/Study-Indicates-Extended-Value-of-Extension-Service-and-Experiment-Stations/919.

available, each state had to submit a plan detailing how they would spend it. One of the requirements was that all students had to participate in a work experience focusing on livestock and crop projects outside of the regular school day.

In 1928, the Capper–Ketcham Act officially recognized and provided matching funds to States to create 4-H clubs for demonstration work that would enable counties to hire youth and home agents, while also providing federal money to agricultural extension networks and the work of agricultural colleges. The Future Farmers of America was founded through the Act.

In 1945, Congress passed the Bankhead-Flanagan Act which recognized 4-H as one of nine Extension responsibilities and gave the Extension Service additional public support. Through Bankhead-Flanagan, Congress appropriated nearly $8 million to support 4-H. After World War II, interest in 4-H increased around the world. Occupation forces began 4-H in Germany and Japan, while the program spread to several other countries as well. In 1947, county 4-H club agents established a national professional association, the National Association of Extension 4-H Agents. In 1948, the Extension System established the International Farm Youth Exchange (IFYE), which is now known as International 4-H Youth Exchange.

Today, as the youth development program of the Cooperative Extension System of land-grant universities, 4-H is the nation's largest youth development organization, and has touched an estimated six million young people throughout the United States. The land-grant universities that house the extension system provide the leadership to engage young people in 4-H in all 3,007 counties of the United States. The Cooperative Extension partnership brings together National Institute of Food and Agriculture of U.S.D.A., land grant institutions and county government to resource learning opportunities for youth.[146]

4-H Centers associated with the University of Georgia

The University of Georgia is a Land Grant University that hosts and supports five 4-H facilities across the state at Rock Eagle, Wahsega, Jekyll Island, Fortson, and Burton. Combined, these centers reach over 160,000 students per year.

Founded as the Corn Club, Georgia 4-H was initially organized in Newton County. The goal of the Corn Club was to assist the rural community by teaching young people improved agricultural practices. It was thought that teaching potential future farmers modern farming practices at a young age might influence their families and communities.

The first two Georgia 4-H programs were established during the 1940s at Wahsega north of Dahlonega, and Tybee Island near Savannah. One of the principal administrators of Georgia 4-H during this period was Bill Sutton. In conjunction with other 4-H supporters and employees of the University of Georgia Cooperative Extension Service, Sutton chartered the Georgia 4-H Foundation on November 17, 1948. The Foundation was created to raise and

146. Georgia 4-H, "4-H Youth Development & Mentoring Programs," http://www.4-h.org/about/, accessed March 4, 2016.

administer funding for the construction of a new center at Rock Eagle near Eatonton.[147]

Wahsega

The future site of the Wahsega 4-H camp was used as a Civilian Conservation Corps (CCC) camp between November 15, 1933 and June 30, 1937. Specifically, the camp (2417-VW) housed CCC enrollees who were World War I veterans. The enrollees built roads and bridges and planted trees in north Georgia. They also constructed the camp itself, roads leading to it, a swimming pond, and an amphitheater. The camp was comprised of large wooden barracks, a mess hall, an infirmary, and officers' quarters. Paths and infrastructure were constructed of native stone.[148]

After the CCC camp was closed, the buildings were turned over to the U.S. Forest Service, which had directed the daily work of the enrollees. During the late 1930s, the majority of the bunkhouses that served as shelter for the CCC enrollees were razed, and smaller wood cabins were built as part of a summer camp—Camp Wahsega—established for underprivileged youth.[149] The camp was also used by the WPA as a recreation camp between 1939 and 1942. Upwards of 5,000 persons participated in the program.[150]

By 1943, the Georgia 4-H program had begun using the camp facilities for conferences and rallies. The first 4-H summer camp was held at Wahsega in 1946. Until the late 1980s, the Wahsega facilities remained in use as a summer camp. The 4-H program used the property under the stipulations of a Special Use Permit agreement that was renewed each year with the U.S. Forest Service.[151] In 1984, the property was transferred to the University of Georgia's Agricultural Extension Service.[152] In 1988, the director of the Wahsega 4-H, Walt Chisholm, began working with Diane Davies, State Coordinator for the 4-H Environmental Education Program. Together, they brought the program to Wahsega, and this arrangement continues today.[153]

Numerous historic buildings and landscape features are associated with the property (see the individual campus assessment for the Wahsega 4-H Center for more information).

Rock Eagle

The Rock Eagle 4-H Center was opened in 1955. The location of the 4-H center was selected in 1950 when John A. (Red) Smith, Putnam County Extension

147. University of Georgia, "Rock Eagle 4-H Center; History," http://www.caes.uga.edu/georgia4h/rockeagle/about.html, accessed April 24, 2016.
148. Dr. Jack T. Wynn, *Cultural Resources Evaluation of Camp Wahsega, Lumpkin County, GA.* (Gainesville, Georgia: U.S. Department of Agriculture Forest Service Report No. 83GA03NO3, 1983), 22.
149. Georgia 4-H, "Wahsega 4-H Center; Historical Information," http://www.wahsega4h.org/about.html, accessed April 24, 2016.
150. Wynn, *Cultural Resources Evaluation*, 19.
151. Dr. Jack T. Wynn, *National Register Nomination Form: Ward Creek Civilian Conservation Corps Camp F-11* (Gainesville, Georgia: USDA Forest Service, October 3, 1983).
152. Wynn, *Cultural Resources Evaluation*, 1.
153. Georgia 4-H, "Wahsega 4-H Center; Historical Information."

Agent, suggested that the center be built near the Rock Eagle Effigy Mound in the northern part of the county. Mr. Sutton, with the aid of the Foundation Board of Directors, secured state funds from Governor Herman Talmadge. Mr. Talmadge agreed that for every private dollar the 4-H Foundation raised he would match it with one state dollar, in addition to providing skilled prison labor to construct the facility. In June of 1952, 4-H members attended ground breaking activities at the new 4-H center site. The prisoners involved in construction of the camp lived in a prison facility built on the property. The new 4-H center was dedicated on October 31, 1954, and opened for operation in 1955. During the dedication, E.W. Aiton, National 4-H Club Leader said "The Center's timbered hills will now grow a crop even greater than cotton or livestock which once covered the area. It will be used to develop the boys and girls who make the Nation's leaders."[154]

Numerous historic buildings and landscape features are associated with the property (see the individual campus assessment for the Rock Eagle 4-H Center for more information).

Jekyll Island

In March 1956, several African-American business owners formed the St. Andrews Beach Corporation and built the Dolphin Club and Motor Hotel, a motel for the African American visitors to the island during an era of segregation. Although the motel opened in August 1959, the corporation soon dissolved and the hotel was sold to the Jekyll Island Authority. It continued to be used as a motel and restaurant during the early 1960s. The Dolphin Club Lounge attracted prominent African American entertainers, such as Clarence Carter, Tyrone Davis, Millie Jackson, and Percy Sledge. The St. Andrews auditorium was built in June 1960 to maintain the requirements of offering separate but equal facilities on the island; it was used for family reunions and dances. Otis Redding performed there in 1964. After desegregation, the building was rarely used and the motel closed in June 1966. The building was used periodically as a group camp and youth center until the late 1970s.

In June 1983, the Dolphin Club Hotel, Lounge, Auditorium, and beach pavilion were leased to the Georgia 4-H program for use as a 4-H center summer camp. In 1987, the program was expanded to include a year round environmental education program. The facilities were renovated in February 2003. Work included reorienting the building so that the doors exit into the courtyard, upgrading of plumbing, electrical, and safety systems, and provision of satellite television, high-speed internet, and telephone were added.[155]

Burton

Located on Tybee Island, the Burton 4-H Center offers environmental education as well as summer camp programs. Administered by the UGA Cooperative Extension Service, Burton 4-H Center occupies a 6-acre elevated hammock on Tybee Island, Georgia, that is surrounded by salt marsh. Facilities include a

154. University of Georgia, "Rock Eagle 4-H Center; History."
155. Georgia 4-H, "Jekyll Island 4-H Center," http://www.jekyll4h.org/history.html, accessed May 30, 2016.

classroom building, recreation hall, dormitories, a dock, pond, fire ring, basketball and volleyball courts, picnic tables, a gazebo, and boardwalk system that provides access to the marsh. The camp also uses many publically accessible areas of the island for environmental education activities.[156] Little information about the history of Burton 4-H Center has been located to date.

Fortson

Located near Atlanta, Fortson offers many of the same programs as the other 4-H centers around the state. Camp Fortson began as a camp site in the backyard of the home of Robert and Regena Whitaker in the early 1960s. The Whitakers established the camp site in response to neighbors and friends who wanted to provide children with the opportunity to experience the great outdoors and the American tradition of camping. The children slept in tents, and played games outdoors. Inspired by the Whitaker's work, Ed Fortson and his wife, Miss Claude, donated more than 75 acres on the Henry-Clayton County line to establish a more permanent camp site in 1962. The site was named Camp Fortson. Future campers, adults who considered themselves Master 4-Hers, and several County Extension Agents cleared the land for the camp.

In 1963, the campers and adults began to dig the foundation for the first building—a CMU dining hall. This building served as a place to eat and as the first dormitory. The campers slept on donated Army cots. A chapel was built the following year. It seated 168 persons, and featured a steeple, stained glass windows, and chimes. The chapel is dedicated to the memory of Margaret Copeland one of the founding members of the Kitchen Kuties. This group of women has raised over $500,000.00 for Camp Fortson. Dorms were later built for both boys and girls. Like the dining hall, they were constructed of CMU.

A lake, which is fed from a natural spring, was dug in 1964. The lake was later divided into separate fishing and swimming facilities. A lake pavilion was added in 1975, and a pool pavilion in 1976. During the late 1970s, a zip line and rock climbing tower and rock wall were added along with a nature trail and campfire ring. The camp has continued to grow, adding sleeping quarters for the counselors, two cottages, a gymnasium, and outdoor stage and amphitheater.

In 2003, Camp Fortson became Fortson 4-H Center, operated by the University of Georgia College or Agricultural and Environmental Sciences Cooperative Extension. Several improvements and renovations have been made since 2003. All buildings have gone through and extensive new painting. In 2011, a small educational farm with plants and animals was added to Fortson 4-H Center, while a canteen and pool pavilion bathrooms and dressing rooms were added in 2012. In the spring of 2015, the Board of Regents voted to accept the donation of Camp Fortson.[157]

156. Georgia 4-H, "Burton 4-H Center," http://www.burton4h.org/index.html, accessed October 11, 2017.
157. Georgia 4-H, "Fortson 4-H Center; Fortson Fun Facts," http://www.fortson4h.org/fortsonfacts.html, accessed May 30, 2016.

Co-education, women's colleges, Normal Schools (1850–1945)

Early colleges did not count women among its roster of students, and women were not typically afforded the opportunity to attend college. Higher education for women did not generally appear until the 1850s. The exception to this was the establishment of the first normal schools, colleges offering course work in teaching, in the 1830s, and Oberlin College in Ohio, which was the first to admit women to the formerly all-male institution, in 1837. Otherwise, women's education was associated with "female seminaries" that were not as academically oriented as male colleges.[158]

The idea of a teachers' training college was first introduced in Germany as a Teachers' Seminary. The first normal school, and the name, was established in France. The idea was brought to the United States by Horace Mann, who worked as a lawyer in Massachusetts until 1837, when he decided to dedicate his life to the advancement of public education. The first normal school in the United States was a state-funded program of public teacher education offered in Lexington, Massachusetts, in 1839 based on the vision of Horace Man. The normal schools were not just focused on teacher education but on the desire to indoctrinate educators in religious teachings to ensure the perpetuation of a devout and moral populace during a period or religious fervor. From Massachusetts, the normal school model was spread to many other states by early graduates. During the remainder of the nineteenth and early twentieth centuries, normal schools were often the only means for women to gain advanced education. In the years between 1880 and 1910, 32 to 40 percent of women in higher education attended normal schools.

Normal schools were open equally to both men and women, who were expected to pass an entrance exam to be admitted. For the first time, women faced not gender discrimination but intelligence discrimination. The normal schools provided women with the opportunity to train as teachers, thus increasing their chances of finding respectable jobs. Normal schools were typically very modest in their physical plant.

Horace Mann's creation of Massachusetts's normal schools greatly improved the role of women in society by providing an opportunity to participate in higher education and become a salaried teacher. Later, Mann would serve as president of Antioch College in Ohio where he promoted co-education and oversaw construction of two identical dormitories, one for men and the other for women.[159]

Coeducation was not a popular idea, and as the idea of college education for women began to grow, it became more fashionable to establish women's colleges. More than ten were founded during the 1850s. The campuses of many women's colleges reflected the anti-urban approach to education that was popular at the time, and a sense that the women in attendance should be protected and made safe, afforded privacy, and considered part of a family. These colleges were best built in a rural locale, but not one that was too isolated, remote, or

158. Turner, 133.
159. Ibid.

uncivilized.[160] Most were built on the single building model where all activities were housed under a single roof.

University of Georgia College of Education (1908–present)

The University of Georgia College of Education was founded in 1908 based on a donation provided by George Peabody after the Civil War to help rebuild the South through education. It followed the establishment of the State Normal School in Athens, authorized by the state legislature in 1891. Women were not permitted to attend the University of Georgia at this time. By 1900, the State Normal School had almost as many students as the University, each approximately 275. In 1901, the University offered three professional education courses but had few enrollees. The normal school provided teacher training for both men and women. By 1903, the University, the State Normal School, and the State College of Agriculture and Mechanic Arts (located in Athens) had united to establish a summer session for teachers and prospective teachers in which students could receive credit from whichever institution they were enrolled. The University was careful to name its portion of these efforts the University Summer School since women could not be admitted to its regular classes.[161]

Thereafter, it was decided that the University would train high school teachers and administrators, while the normal school would train teachers for the common schools. After securing funding from the Peabody Fund, the University established the School of Education. In 1913, Peabody Hall was dedicated as the home of the new college.

It was not until World War I effectively emptied the University's classrooms in 1917 that admitting women to the Peabody School of Education was considered. In 1919, women were officially admitted to both the Peabody school and the home economics department of the College of Agriculture. At the time, the Georgia State Teachers College (formerly the State Normal School) and the Georgia State College of Agriculture and Mechanic Arts were consolidated within the University.

The Peabody School of Education was established as the centerpiece of the new College of Education, while the College of Agriculture's departments of home economics education, rural education, and physical education for women were also placed within the new College of Education. A Master of Arts in Education degree was authorized for the University in 1930, while the Doctor of Philosophy degree was authorized in 1933. A teacher shortage resulted during World War II. In response, the University began a major recruitment effort aimed at women, especially those who might become teachers, while it also leased buildings and grounds to the military for training purposes. Practice teaching, which had been conducted at Baldwin Hall, was moved back to the Normal School campus in 1944 to allow the U.S. Navy to use the University for one of its five Pre-Flight Schools, including Baldwin Hall. Shortly after the war, Baldwin Hall was

160. Ibid.
161. University of Georgia, "History of the College of Education," https://coe.uga.edu/about/ history, accessed May 31, 2016.

refurbished to house the College of Education, and practice teaching was moved into the public schools.[162]

In 1971, the College of Education moved to Aderhold Hall on South Campus.

Examples of buildings on campus associated with this context include:

- The McPhaul Center, 1939–1940 (UGA 1652, 1246, 1247, 1248, and 1249)

Home Economics

Women were officially admitted to the Division of Home Economics within the College of Agriculture at UGA in 1919. Mary E. Creswell was the first graduate of the program, as well as the first woman to graduate from UGA. She would go on to oversee the 4-H program for girls as part of the Cooperative Extension Service. In 1931, the Division of Home Economics and the Department of Home Economics at the Georgia State Teacher's College merged to form the UGA School of Home Economics. In 1939–1940, five buildings were constructed on the Athens Campus to support department programs using Public Work Administration funds. The buildings, designed by Richard Driftmier and Roy Hitchcock, now comprise the McPhaul Center.

In 1978, the School of Home Economics became the College of Home Economics. In 1990, the name of the program was again changed to the College of Family and Consumer Sciences to reflect trends occurring nationwide within the field of study.[163] Since 2000, there has been a resurgence of interest in the history of home economics and its role in offering higher education and career opportunities for women.

Buildings on the Athens Campus that relate to this context include:

- The McPhaul Center (UGA 1652, 1246, 1247, 1248, and 1249)

Forestry Education (1898–present)

Forestry did not emerge as a profession until the late 1800s. Forestry as a science had been invented in eighteenth-century Germany, where woodlands were cut so destructively that they turned into heaths. Lacking wood even to keep warm, Germans were forced to rehabilitate their woods. They devised the practice of silviculture, the growing of trees for repeated harvests, using carefully devised methods.[164] Those traveling to Europe could visit several European managed forests, witnessing the results of scientific forestry policies that had long been in effect in German forests. The careful management of timber resources effected by German foresters was impressive, and those who witnessed them were greatly impressed, and inspired to introduce similar practices in the United States.

Several Americans chose to travel to Europe to study forestry during the 1880s. With training, they could work for large-scale land owners seeking assistance

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162. Ibid.
163. University of Georgia, "History," *College of Family and Consumer Services,* http://www.fcs.uga.edu/college/history, accessed October 6, 2017.
164. Lester DeCoster, *The Legacy of Penn's Woods: A History of the Pennsylvania Bureau of Forestry* (Harrisburg, Pennsylvania: Commonwealth of Pennsylvania, 1995), 2, 6.

with maximizing the income potential of their forests. Programs of study were available in Germany, France, and England. Some of the early graduates would go on to help establish forestry programs and schools in the United States.

Forestry education was introduced in the United States near Asheville, North Carolina in 1898 by German forester Carl Alwin Schenck (1868–1955). Scheck was one of only three Americans trained in forestry at the time. The other two were Bernhard Fernow and Gifford Pinchot. Schenck studied forestry at the Institute of Technology in Darmstadt, and later the University of Giessen, in part under the direction of visiting professor Sir Dietrich Brandis, an influential forester who introduced the field to Great Britain and several of the country's colonial holdings. Schenck received a Ph.D. in 1895, at which time he relocated to the United States to look for work in the field of forestry. On Brandis's recommendation, Schenck succeeded Gifford Pinchot as forester at Biltmore, the estate of George Vanderbilt. Vanderbilt was also amassing a large tract that would become known as the Pisgah Forest. The heir of a wealthy railroad family, Vanderbilt decided to create a showpiece estate in the southern mountains in the 1880s. Over the course of several years he purchased over one hundred thousand acres of land in the mountains south of Asheville and additional land adjacent to the town. The majority of the land had been used either for farming or logging, although some remained forested. On an 8,000-acre tract outside of Asheville, Vanderbilt constructed one of the largest residences in America, which he called Biltmore House. Gifford Pinchot was the first to work with Vanderbilt on his assembled property to develop a managed forest. Pinchot, however, stayed at Biltmore for only three years, long enough to build wicker fences for erosion control and initiate selective harvesting.[165]

Schenck, in the meantime, would play a more important role in Vanderbilt's project. As he began his work, Schenck wrote "Except for a few inaccessible spots, there was not a tree left on the entire Biltmore estate that was fit for lumber."[166] During his fourteen years serving Vanderbilt, Schenck experimented with many methods to improve the property. Trained in Europe's woodlands, which offer far less diversity of species and terrain, Schenck was forced to adapt his methods to the task of improving the unfamiliar Appalachian forest to promote the regeneration of a forest at Biltmore Estate.[167] Because there were no nurseries to acquire trees for reforestation, Schenck brought white pines from Germany to serve as his first plantings at Biltmore.[168]

While under the employ of George Vanderbilt, Schenck also operated the first school of forestry in America at Biltmore Forest. Between 1898 and 1913, Schenck graduated more than 300 students, many of whom were the sons of wealthy landowners who boarded in local homes or resided in rough cabins adapted for the purpose. Pennsylvania's first degreed forester, George Wirt, came from this school. Schenck's curriculum was evenly divided between fieldwork and classroom study. Schenck engaged his students using the findings of his own

165. Chris Bolgiano. *The Appalachian Forest; A Search for Roots and Renewal* (Mechanicsburg, Pennsylvania: Stackpole Books, 1998), 85–86.
166. As quoted in Bolgiano, 86.
167. Ibid.
168. DeCoster, 42.

forestry work for Vanderbilt on the larger property, known as the Pisgah Forest, which was named for the Biblical peak from which Moses viewed the Promised Land.[169]

Schenck's course work addressed erosion control, measurement of lumber, and the economics of harvesting. Erosion control, and the protection of topsoil was of tantamount importance. Schenck explained the need to plant trees to cover eroding fields to protect topsoil. He also explained methods for selective tree cutting and thinning aimed at improving the growth of remaining trees. He also taught the students to clear-cut pines to favor hardwoods wherever possible. Schenck also conveyed methods for decision-making regarding the timing of stand harvesting, explaining how to monitor pests and diseases. A particular focus was the design of a management plan that would yield private profits by showing how economical the practice of conservative forestry could be. Many sons of timber barons learned to recalculate the bottom line from cut out and get out to cut and grow and cut again at Schenck's school.[170]

Almost immediately after Biltmore opened, the New York State College of Forestry at Cornell University in Ithaca began to accept students. By 1900 the Yale University Forestry School had been established in New Haven, Connecticut, established through a $150,000 gift from Gifford Pinchot and family. Pinchot's gift was designed to promote forestry graduates who could staff the newly established U .S. Forest Service, which he headed.[171]

Professional disagreements about the focus of the curriculum for these early American forestry schools quickly consumed America's foresters. While Schenck believed that foresters needed to have practical knowledge of logging because it was their job to make forestry an economically viable proposition, Pinchot did not support the idea that foresters should be taught about logging since they were concerned primarily with the maintenance of forests by controlling the way they were used. Based on this fundamental disagreement, Schenck and Pinchot had a falling out in 1901, with Pinchot referring to Schenck as "an antichrist" for including logging methods in his forestry school curriculum. Pinchot would later propose federal regulation of all private-forest harvesting, causing a great debate over policy in the forestry profession. Their argument and the extent to which foresters should get involved with the economic use of forests continues to be debated today.[172]

As training of foresters began to move forward, a professional society for foresters, the Society of American Foresters, was formed in 1900. Initially a small group that met in Pinchot's mansion in Washington, D.C., the Society of American Foresters sometimes hosted President Roosevelt due to his friendship with Pinchot.[173]

The nation's fourth school of forestry in Pennsylvania was established at Mont Alto, a former iron furnace property, by state forester Joseph Trimble Rothrock

169. Bolgiano, 87.
170. Ibid.
171. DeCoster, 37.
172. Ibid.
173. Ibid.

in 1903. Rothrock recognized the need to produce more foresters for Pennsylvania, particularly practical foresters, based in science but also knowledgeable about using axes and saws to harvest trees. Returning to his proposals from the 1880s, he decided the state might begin to train its own foresters and appealed to the state to create a forestry education program. Rothrock was convinced the state's new forestry program would not thrive without trained personnel to manage the forest reserves. Joseph Rothrock suggested that the new school to train foresters with both theoretical and practical skills. In addition to classroom courses in math and science, students would learn firefighting techniques and the use of equipment such as axes and saws.[174] One of the people Rothrock approached for funding was Andrew Carnegie, who declined. Rothrock persevered and went on to successfully establish a school in 1903 and effect the training of foresters in a Pennsylvania school, and placing them in charge of state-owned forests to increase their productivity. Another important aspect of forestry during the early twentieth century was the prevention of forest fires. Training in fire identification and control, as well as prevention were part of the curriculum of the period. Another area of study and practical experience for students was reforestation. Nurseries were formed to support this effort in association with the school at Mont Alto and others. The young forestry programs faced a crisis almost immediately with the chestnut blight.

University of Georgia Warnell School of Forestry (1906–present)

At the University of Georgia, the Warnell School of Forestry was formed the same year that Mont Alto graduated its first class in 1906. It is the oldest continually operating program in the South. The school was established through an endowment provided by George Foster Peabody and was originally called the George Foster Peabody School of Forestry. A Forestry (UGA 1040) building designed to house the school was completed on the Athens Campus in 1938. It was one of the numerous academic buildings designed by Robert H. Driftmier, professor of agricultural engineering, and architect Roy Hitchcock. The building continues to serve as the home of the Warnell School of Forestry and Natural Resources. Two additional Forestry Resource buildings were added circa 1968 to support the needs of the department by the U.S. Department of Agriculture (UGA 1044, UGA 1140).

In 1936, the Georgia Rehabilitation Corporation acquired an 840-acre property in Clarke and Oconee Counties, approximately 4 miles from Athens, which it later conveyed to the University of Georgia Board of Regents. The property contains several pine and hardwood forest types that are used for research. Also associated with the property is the 1892 White Hall Mansion, a Romanesque Revival style residence. Since its acquisition by the University, the property has grown to include an additional 46 acres of land as well as several research facilities—the L.L. Pete Phillips Wood Utilization Plant Sciences Building, Whitehall Deer Research Facilities, Aquatic Biotech Environmental Lab, and Whitehall Fisheries Lab. The property also houses offices and laboratories associated with the U.S. Forest Service, U.S. Department of Agriculture, and U.S. Geological Survey. A building referred to as Flinchum's Phoenix, used for meetings, classes, and

174. Ibid.

related functions, is located on a bluff overlooking the Oconee River at the southern edge of the property.

Over the years, the University of Georgia's School of Forest Resources has become more sophisticated and respected. A regional and National frontrunner, the Warnell School is ideally situated, offering easy access to the three major provinces of the Southeast: the coastal plains, the piedmont, and the mountains. Complex demands were made on the profession, requiring greater competence of forest resource managers and scientists. To insure that future graduates are better prepared to meet the diverse challenges they will face, the school was renamed The School of Forest Resources and designated as a professional unit in 1971, at which time the curriculum was redesigned.

In 1982, Oconee Forest Park was established south of Herrick Lake. The park is managed by the School of Forest Resources.

In 1991, the School of Forest Resources was dedicated in honor of the late Daniel B. Warnell. Mr. Warnell was a native Georgian who was involved in the management of banking, farming, and timber enterprises. He served in the Georgia House of Representatives from 1931 to 1937 and in the Georgia Senate from 1937 to 1939. As a state legislator, Mr. Warnell made significant contributions in rural development, public education, public transportation, and conservation of natural resources.[175]

Historic Athens Campus resources that relate to this context include:

- White Hall Mansion, 1892 (UGA 2501)
- Whitehall forest
- Forest Resources I, 1938 (UGA 1040)

Field Stations and Oceanographic Institutes (1880s–present)

Biological field stations are sites established for scientific research and empirical observation within or adjacent to biologically rich habitat that offers the opportunity to study and investigate the flora and fauna in situ. Field stations often provide protected environments in which researchers can conduct the long-term studies required for making fundamental discoveries. They can serve as a meeting place where scientists from different disciplines—ecologists, geologists, or engineers—can come together to share their expertise and provide valuable new perspectives for approaching environmental questions. They may also furnish a supportive environment where veteran researchers can extend their legacies by mentoring new generations of young scientists.

Biological field stations provide living libraries and outdoor laboratories for students, researchers, and the general public interested in the environment. The best way to learn environmental science is to experience it first-hand in the field. Field station course work can offer students their first chance to apply the information they may have learned in classrooms and books to the real world. Lessons learned at field stations remain with students throughout their lives;

175. University of Georgia, “Warnell School of Forestry,” http://www.forestry.uga.edu/about/history.php, accessed May 31, 2016.

many carry with them a deeper appreciation for the importance of natural systems, and in some cases find their career focus. Many working scientists can point to a class or a summer spent at a field station as a key event that determined their career path.

Field stations may be involved in collecting data and knowledge on the functioning of natural systems, but can also consider threats to those systems. Because threats to habitats around field stations are representative of threats to habitats globally, field stations are often of strategic importance. For well over a century, research conducted at biological field stations has provided scientific data and the training and expertise required to identify and address critical environmental challenges, including such topics as acid rain, the spread of invasives, and ecosystem responses to global climate change. Today, many stations are leading the way in the development of sustainable facilities that not only support the activities of researchers and students but may provide a model for community development.

Field stations arose from the work of scientists during the nineteenth century, in part drawing from the investigations into natural history of such notable explorers as Charles Darwin. The idea for establishing field stations and marine laboratories can be traced intellectually to Swiss-American biologist and geologist, Louis Aggasiz, while serving as professor of zoology and geology at Harvard University. Based on his approach to science, which focused on observational data gathering and analysis, Aggasiz is credited with establishing the first field site for natural history education in 1871. Referred to as the Anderson School, the field site was located on an island in Buzzard's Bay on Cape Cod in Massachusetts. John Anderson was a local philanthropist who provided Aggasiz with access to the island and some of the facilities he would need for operation of the site. Another professor at Harvard during this time was botanist Asa Gray. Gray and Aggasiz were rivals. Soon after Aggasiz established the Anderson School, Gray began to offer the first field course in botany at Harvard.

The Anderson School was in operation for only two seasons before Aggasiz died. The school nonetheless would have a profound influence on biological science, and sparked the establishment of field stations and marine institutes nationwide. Several were formed by individuals inspired by or who had studied with Aggasiz. Fields stations began to proliferate after the 1870s. The trend continued until circa 1930, both in the United States, Europe, and elsewhere around the world.

UGA Marine Institute on Sapelo Island (1953–present)

The University of Georgia's Marine Institute at Sapelo Island is part of the School of Marine Programs. It is located on a barrier island midway on the Georgia coast between the Savannah and St. Mary's Rivers that is bordered to one side by the Atlantic Ocean and to the other by a pristine salt marsh. The UGA Marine Institute has served as a field research laboratory for estuarine scientists since establishment in 1953. With a mission to provide access and facilities for graduate and undergraduate classes to experience field research and gain an appreciation of the Georgia coast, the Marine Institute centers around ecosystem level and other studies of salt marsh processes, estuarine complexes, and nearshore coastal ecosystems. The Institute is internationally recognized as

one of the major contributors to the scientific understanding of watershed-marsh-coastal ocean complexes, the flow of energy, nutrients, and minerals, and the role of microbial processes through the land-sea interface.[176] Sapelo Island Marine Institute, although established after the heyday of field station development, meets an important need for studying estuarine ecology that was not understood until the latter part of the twentieth century.

Numerous historic buildings and landscape features are associated with the property (see the individual campus assessment for the UGA Marine Institute on Sapelo Island for more information).

Skidaway Oceanographic Institute (1967–present)

Skidaway Institute of Oceanography was established in 1967 by the Georgia General Assembly as a place to conduct research in all fields of oceanography and marine science based on a proposal presented in 1966 by the Georgia Science and Technology Commission. The Commission recognized Skidaway Island for ". . . its close proximity to an important metropolitan center, its sheltered location on natural deep water channels, its convenient access to the open sea, its strong aesthetic appeal, and its virtually virgin state."[177] The marine institute was established on land donated for the endeavor by the Robert C. Roebling family, and the Union Camp Corporation. The Roebling's are descended from noted engineer, John A. Roebling, recognized for his design of the Brooklyn Bridge. Although the institute was established relatively late as related to many oceanographic institutes, Skidaway is uniquely positioned to study the effects of climate change on the world's oceans and ocean life.

Numerous historic buildings and landscape features are associated with the property (see the individual campus assessment for the Skidaway Oceanographic Institute for more information).

The City and University Beautiful Movements, College Planning, and Beaux-Arts Design (1893–1930)[178]

While Victorian trends and the Gothic style design were popular during the late nineteenth and early twentieth centuries, the 1893 World's Columbian Exposition in Chicago, where Daniel Burnham and Frederick Law Olmsted created the ideal "White City," contributed to a renewed interest in Neoclassical design. The White City was based on Beaux-Arts principles derived from French Neoclassical architecture, which espoused symmetry, balance, and splendor. Beaux-Arts planning was predicated on bilateral symmetry; axial alignments; the use of monumental buildings as focal points and termini to long axes; and symmetrical, hierarchical circulation patterns that featured central walkways with secondary routes leading from them.

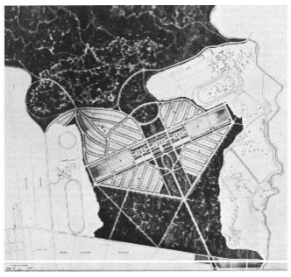

Figure 33. Master plan for Stanford University, circa 1887. (Source: Turner, 171)

176. University of Georgia, "University of Georgia Marine Institute at Sapelo Island; Visiting the Institute," http://ugami.uga.edu/visit/about.htm, accessed May 3, 2016.
177. James Barlament, "Skidaway Institute of Oceanography," *New Georgia Encyclopedia,* May 31, 2017, http://www.georgiaencyclopedia.org/articles/education/skidaway-institute-oceanography.
178. Turner, 163–213.

The immediate popularity of the emerging style led to City and University Beautiful urban and campus planning movements in the early twentieth century that would impact many colleges and universities, as well as urban areas, around the United States. Beaux-Arts planning called for monumental organization and orderly planning on a grand scale. Master plans completed in the spirit of the style were concerned with incorporating existing disparate buildings and landscape features into a unified, overall pattern geometric design that was strengthened with the proposed arrangement of new buildings to complete quadrangles and other regularized forms.[179] The Beaux-Arts style was particularly attractive to existing schools where the trustees and campus planners hope to "collect" and organize their buildings into a uniform, comprehensive plan. The Beaux-Arts style was used to reflect institutional character during the early twentieth century. Architectural features representative of the style often include flat roofs and attic stories, colossal columns emphasizing double doorways, dentil moldings on cornices, and limestone banding between stories.

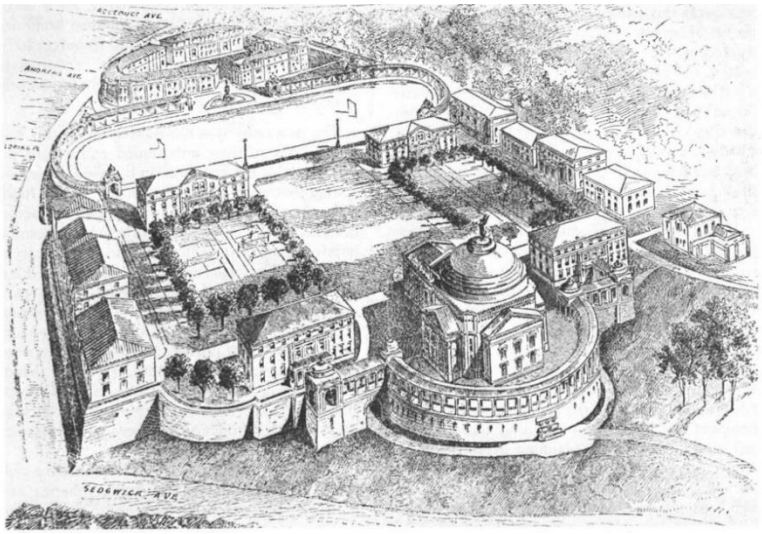

Figure 34. New York University. Rendering of master plan for the new University Heights campus of the school, by Stanford White, circa 1893. (Source: Turner, 179)

One of the factors that led to the immediate adoption of the Beaux-Arts style by many schools was the need to reflect the new trend in education toward a university curriculum and away from the concept of a collection of independent colleges. A highly democratized system evolved to provide education for increasingly larger numbers of students—both men and women—often with very different goals, including technical and liberal arts education, and undergraduate and graduate study, particularly schools based in Land Grant legislation. Such diverse interests required a new form of planning. Whereas earlier the American college had tended to form a "village," the new university was seen more as a "city."[180] Following the trends espoused in Chicago, many universities adopted a "City Beautiful" stance, planning their campuses as if they were independent communities, with disparate buildings neatly connected through axial alignments that ran through the buildings' interiors as well as across landscaped spaces. This

179. Ibid., 167.
180. Ibid.

Beaux-Arts system of planning was highly practical for growing campuses as well, where disparate buildings or parts could be unified following principles of monumental organization.

At the University of Georgia, the Beaux-Arts style was used predominantly for academic buildings reflecting the national ideals of that style's historic context. The Leavitt plan for the University of Georgia paralleled the City Beautiful trend in envisioning a comprehensive orderly plan for the campus.

Figure 35. Candler Hall. (Source: University of Georgia)

Figure 36. Hirsch Hall, circa 1934. (Source: University of Georgia)

Examples of campus buildings that reflect the City and Campus Beautiful movement and Beaux-Arts style on the Athens campus include:

- Candler Hall, 1901 (UGA 31)
- Portico of Academic Building, 1905 (UGA 120)
- George Peabody Hall, 1913 (UGA 42)
- Memorial Hall, 1924 (UGA 670)
- Brooks Hall, 1928 (UGA 50)
- Hirsch Hall, 1932 (UGA 32)

- Fine Arts Building, 1941 (UGA 60)
- Gilbert Hall, 1942 (UGA 640)

Progressivism and Educational Theory (1890–1920)

A national trend that affected planning and development at many colleges and universities was the Progressive movement, a period of widespread social activism and political reform that occurred around the turn of the twentieth century. Reformers sought to change local government, public education, finance, industry, and many other aspects of society. Prohibition came out of the movement as a way to diminish the power of corrupt officials and saloon bosses. The progressive movement led to the transformation and professionalization of many fields of study, while in academia, the amateur author was replaced by the research professor. The Progressive era was marked by ideas of democracy and equal access in American society grounded in the belief that educating the public in a democratic fashion was the best way to improve society. In the South, this philosophy was embraced with particular enthusiasm because it provided a way for educators, politicians, and others to enhance the status of southern universities in the eyes of the nation. Progressive era educators perceived their institutions as bringing tangible improvement to the South by means of educating a generation of young people to make a practical difference in their communities. Consequently their emphasis was on applied rather than theoretical knowledge. Progressives pushed for increased entrance requirements to universities and the creation of professional schools such as medicine, law, engineering, and education, and opening programs to women. Women's suffrage also resulted from the movement. In education, the University of Virginia led the way in the south but other universities soon followed by expanding the number of programs offered, as well as more academic specialization. This expanded program resulted in new buildings for many schools.

Philanthropy was another outcome of the movement. At University of Georgia, as elsewhere, this resulted in the provision of new buildings and features based on the interest of the philanthropist in furthering a particular aspect of the movement. The Andrew Carnegie, along with John D. Rockefeller, established large foundations to fund philanthropic efforts. The Carnegie Library at the Normal School is an example of one of the philanthropic programs funded by one of these foundations. More than 2,500 Carnegie libraries were built around the world. Of these, more than 1,600 were located in the United States, some in association with public and university library systems. Most of the library buildings were unique in terms of their architecture, designed in styles such as the Beaux-Arts, Italian Renaissance, Baroque, Classical Revival, and Spanish Colonial.

Examples of this context include

- Carnegie Library, 1910 (UGA 1904)

Colonial Revival Design (1895–1940)

Mid- to late-nineteenth-century responses to the industrial revolution and the many rapid changes that were occurring in America prompted many Americans to seek solace in less tumultuous times, such as the Colonial period, and look for

reassurance that the Republic and all it stood for would survive. Interest in the Colonial period was revived during the Centennial Exhibition held in Philadelphia in 1876 that marked the anniversary of the Revolution. The turn of the twentieth century was marked in part by a romanticized view of the past, and a tendency toward patriotism that was expressed in architecture and other arts and design. The Colonial Revival style of architecture, also referred to as neo-Colonial, Georgian Revival, and neo-Georgian, emerged as part of this trend. Residential structures are typically two stories, with the ridge pole running parallel to the street, a symmetrical front facade with an accented doorway, and evenly spaced windows to either side. Dwellings featured elaborate front doors, often marked by decorative crown pediments, fanlights and sidelights, and columned porches.

Figure 37. Joe Brown Hall at UGA is an example of the Colonial Revival style of architecture. (Source: University of Georgia)

The Colonial Revival style was predominantly used for the design of residential dormitories on the Athens campus, reflecting the less formal stylistic character inherent in its associations and context.

Examples of the Colonial Revival style on the Athens Campus include:

- Meigs (formerly Le Conte) Hall, 1904 (UGA 24)
- Milledge Hall, 1921; 1938 (UGA 271)
- Joe Brown Hall, 1932 (UGA 250)
- Legion Pool Service I, 1936 (UGA 2605)
- Clark Howell Hall, 1936; 1953 (UGA 290)
- McPhaul Center, 1939–1940 (UGA 1652, 1246, 1247, 1248, 1249 (1939–1940)
- Payne Hall, 1940 (UGA 270)
- Snell Dining Hall, 1940; 1979 (UGA 1643)
- Reed Hall, 1952 (UGA 280)

Figure 38. Sears house (UGA 6088) on Sapelo Island. (Source: University of Georgia)

Sears Modern Homes and Other Catalogue Houses (1908–1940)

Sears Modern Homes were advertised in the Sears, Roebuck and Company catalogue between 1908 and 1940 for purchase in the form of prefabricated components that could be shipped by rail to a depot near the property where they were to be assembled. Sears indicates that at least 70,000 Modern Homes were sold in this way through their catalogues. Homes were offered in 370 different designs, referred to by model number, which reflected a variety of architectural styles. The most popular styles were also named. Home owners could sometimes chose the exterior wall cladding, such as wood siding or brick veneer, to be used on the particular model they were interested in purchasing. Sears also later offered such building types as camp and summer cottages, garages, and farm outbuildings. Most of the buildings ordered from catalogues were shipped to communities along the Eastern Seaboard and in the Midwest, but surviving examples of the homes can be found all over the continental United States as well as in Alaska. One of the communities with the largest collections of Sears's homes is Elgin, Illinois, where more than 200 have been identified.

The components were shipped with nearly all the materials that a homeowner would need to assemble his or her home. There were several other companies that offered a similar product, including the Aladdin, Bennett, Gordon Van-Tine, Harris Brothers, Lewis, Montgomery Ward, Pacific Ready Cut Homes, Sterling, and Wardway Home companies. The first catalogue house was offered for sale in 1889 by George F. Barber of Knoxville, Tennessee. The Aladdin Company began to sell houses by catalogue beginning circa 1904, with Sears following suit in 1908, and Montgomery Ward and Company by 1910. Sears would become the leading seller of catalogue houses, possibly due to the later offer of selling the homes on credit.

Sears building materials division manager, Frank W. Kushel, first proposed the idea of selling homes through the Sears stores to Richard Sears in 1906 as a way to boost sales. In 1908, Sears issued its first catalogue for houses, called the *Book of Modern Homes and Building Plans*. The purchaser received a set of architectural plans as well as the materials needed to build out the plan. The

catalogue illustrated forty-four different models ranging in price from $360 to $2,890. The company sold its first home later that year, and sales rose steadily thereafter. The first purchasers had to cut the lumber supplied by Sears to appropriate lengths; however, in 1916, the company began to offer precut and fitted lumber. Most of the home models used a balloon-style framing method that required less carpentry expertise to erect. The materials arrived weighing approximately 25 tons, and including more than 30,000 individual parts. Home owners had to purchase the electrical, plumbing, and heating components and fixtures separately.

Sears began offering financing on the homes beginning in 1912, but was forced to end the practice in 1934 due to rising payment defaults resulting from the Great Depression. Although sales began to recover in the late 1930s, Sears ended the Modern Homes division in 1940 due to diminished demand. Despite the last Sears Modern Homes catalogue being issued in 1940, the company continued to sell a few houses through at least 1942. It is estimated that Sears sold approximately 75,000 of its houses before 1942. The catalogue houses allowed many to become home owners, and also contributed to the development of many suburban neighborhood prior to World War II.

Early Sears models were one-story frame cottages and two-story Victorian vernacular structure. Later, Sears migrated towards two-story Colonial Revival designs and Four-Square or one-story bungalows or Cape Cod houses.

Sears catalogue houses can be identified today by locating stamped lumber in unfinished spaces such as the basement or attic used in the framing, assessing the column arrangements on the front porch as representative of the Sears standard, five-piece eave brackets that can also be compared with the Sears standard, copies of the original blueprint and/or shipping labels, building permit records that indicate Sears as the original architect of a building, and comparison of the floorplan and principal facade with catalogue records. Goodwall sheet plaster was an early drywall product offered by Sears that, if found, may suggest a property is a Sears catalogue house.

Another prefabricated house type represented at the University of Georgia is the Hodgson house, manufactured by the E. F. Hodgson Company. This firm, known as America's first organized prefabricated house manufacturer, The company was established in 1892 and was active through the 1930s and 1940s.[181] Unlike competitors such as Sears, Hodgson houses were shipped to buyers with the walls as fully assembled panels, including windows and doors. The panels were installed onsite using a system of connectors and metal pins. In contrast, Sears houses were shipped as components with many numbered pieces that were then assembled onsite, as a normal house would be constructed.

Several catalogue homes have either been individually listed in the National Register of Historic Places, or have been indicated as contributing resources within a historic district in the area of Architecture as representative of the

181. Hodgson Houses website, http://hodgsonhouses.net/history.htm, accessed June 14, 2016.

domestic architecture of the period. It is important to document the integrity of the catalogue houses, and determine how rare the make/model might be.

Examples of Sears Modern homes are present on Sapelo Island and at Skidaway. For more information, see the individual assessment chapters for these two campuses.

Public Works Programs of the New Deal Era (1933–1942)

Following the stock market crash that began on October 24, 1929, America's economy began a long downward slide. By the time President Franklin Delano Roosevelt was inaugurated in March 1933, more than 25 percent of the American workforce was unemployed. Immediately upon his inauguration, Roosevelt began to work with Congress to implement a suit of programs designed to offer work to the unemployed while attempting to stabilize the economy. Together these programs would become known as the New Deal.

Roosevelt's first New Deal program was the Emergency Conservation Work (EWC) Act. On March 21, 1933, Roosevelt presented the EWC program, which sought to solve two of the nation's greatest challenges—repairing the damage done to the nation's natural land and water resources due to poor management, and offering paid labor to America's youth, to Congress, noting:

> . . . I propose to create a civilian conservation corps to be used in simple work, not interfering with normal employment, and confining itself to forestry, the prevention of soil erosion, flood control and similar projects. I call your attention to the fact that this type of work is of definite, practical value, not only through the prevention of great present financial loss, but also as a means of creating future national wealth. . . .[182]

His proposal suggested that government recruit thousands of unemployed young men, enroll them in a peacetime army, and organize groups of enrollees to undertake projects around the country to repair damage done to soil and water resources by poor farming, logging, and mineral extraction. The Civilian Conservation Corps (CCC) was authorized by Executive Order 6101 on April 5, 1933.

The CCC was highly successful. Over the course of nine years between 1933 and 1942, more than three million young men participated in this massive conservation effort, which quickly became the most popular of Roosevelt's New Deal programs. The program was also attractive to America's unemployed. They lived in work camps and received a base pay of $30 per month, $25 of which they were required to send home to their families. They were encouraged to spend the rest in nearby towns, to bolster local economies.[183] The men built fire towers, telephone lines, picnic tables, overlooks, trails and campgrounds with wells, fireplaces, and privies. They piled up boulders and brush piles in erosion ditches to stop the force of water. They thinned out thousands of acres of choked stands of young tree. The dug up all the gooseberry and currant bushes they

182. "Message to Congress on Unemployment Relief. March 21," *The Presidential Papers of Franklin D. Roosevelt, 1933* (1938).
183. Bolgiano, 101.

could find to eliminate them as a reservoir of blister rust, a fungus that killed white pines. Whatever other timber improvement projects the rangers could devise, the CCC enrollees did it. In some national forests with nurseries, they planted hundreds of thousands of seedling trees. The CCC also built many, many miles of roads.

One of the camps established for CCC use was at Wahsega, which would later become one of the UGA-administered 4-H camps within the state of Georgia.

At the Mountain Branch Experiment Station, several stone structures were built with the assistance of the CCC and the Federal Emergency Relief Agency. These included the office and seed lab (UGA 3512), fruit stand, root cellar, and community cannery (UGA 3506).

Two additional New Deal programs that were instrumental in development of the Athens Campus of UGA were the Works Progress Administration (WPA) and Public Work Administration (PWA). Public works programs administered by the Public Works Administration (PWA) included construction projects to develop important monumental public buildings—armories, school and university structures, post offices, libraries, prisons, and hospitals among them—that would afford work to unemployed architects, as well as laborers, tradespeople, and craftsmen, including masons, carpenters, pipe fitters, welders, plasterers, electricians, plumbers, roofers, and window glazers.

At UGA, PWA funding supported the construction of seventeen new buildings for the Athens Campus, which greatly augmented the existing collection of thirty-four buildings present in 1934. In addition to the new buildings, PWA funding supported other campus improvements, such as landscaping and the paving of sidewalks and roads.

Many of the buildings built during the 1930s and 1940s were executed according to the designs of Robert H. Driftmier, UGA professor of agricultural engineering, and his architect Roy Hitchcock. Examples of buildings on the Athens campus designed by Driftmier and Hitchcock and built using PWA funding include

- Clark Howell Hall, 1936 (UGA 290)
- Le Conte Hall, 1938 (UGA 53)
- Baldwin Hall,1938 (UGA 55)
- Park Hall, 1938 (UGA 56)
- Payne Hall, 1936 (UGA 270)
- Milledge Hall, 1921; 1938 (UGA 271)
- Mary Lyndon Hall, 1936 (UGA 1221)
- The McPhaul Center, 1939–1940 (UGA 1652, 1246, 1247, 1248, and 1249)

PWA financing also permitted the renovation of both Moore (UGA 25) and New College (UGA 30).[184]

For several reasons, many of the buildings completed as part of the program were designed in the Art Deco style or versions of it that are known as international, twentieth-century modern, modern, and even monumental government public architecture. It is thought that the Art Deco style was suited to the process of using many workers not necessarily skilled in construction. The simple nature of the style, characterized by geometric shapes, was considered easier to build than the Collegiate Gothic or Classical. The use of a modern style, coupled with solid, monumental construction, was also intended to communicate confidence in the government and a positive outlook for the future during a difficult time in American history. Buildings constructed during the period were to be of simple and durable design, low-cost construction and upkeep, and in harmony with nearby architecture. Representative examples of the style on the Athens Campus include Le Conte Hall, Baldwin Hall, and Park Hall.

Other University facilities also benefitted from New Deal funding. At the Coastal Plain Branch Experiment Station at Tifton, PWA funding was used to construct the:

- Animal and Dairy Science Building, 1937 (UGA 4603)

The Influence of Modernism (1912–1979)

Early Modernism, circa 1912–1939

In America, Modernist influences began as early as 1900, and offered a bold departure from the Beaux-Arts style in terms of spatial organization and the use of traditional materials and construction methods. The Modernist movement was important for reconciling the principles of underlying architectural design with rapid technological advancement in a modernizing society, including the influence of the automobile. Louis Sullivan and Frank Lloyd Wright were two of the pioneers of the style in America. Wright's approach to design was heavily influenced by the reform movement during the early twentieth century. One of his important contributions was in the conception of American educational buildings and the arrangement of complexes and site design.

During the 1920s, European architects such as French Modernist LeCorbusier, Walter Gropius, and Ludwig Mies van de Rohe, all trained under Per Behrens, led the way in an architectural revolution. Characteristics of Modern architecture during this period included uncluttered and minimalist design, simple, unornamented buildings, the use of modern materials such as glass, steel, and concrete and expressed structure. Floor plans were functional and logical, while a goal was to blur the line between indoor and outdoor spaces, dissolving the sense

184. Ayers/Saint/Gross, Architects and Campus Planners, with Heery International, Architecture and Planning; Hughes, Good, O'Leary & Ryan, Landscape Architecture; LRE Engineering, Traffic Engineering; and Paulien & Associates, Academic Programming, *The University of Georgia Master Plan*, prepared for the University System of Georgia Board of Regents, 1998.

of envelope by blending it into the background with large glass walls and minimal structure.

In 1932, the International Exhibition of Modern Architecture in the Museum of Modern Art in New York helped to consolidate the vision of the many architects practicing variations of the style. It was not until after World War II, however, that the influence of the International style began to affect the architectural character of the American landscape. On academic campuses, Modernism was particularly influential due to the introduction of Walter Gropius to the Harvard School of Design by Dean Joseph Hudnut in 1937.

In addition to architecture, campus site planning was also influenced by Modernism. Organic relationships, like those espoused by Frank Lloyd Wright, were again desirable. In the spirit of moving away from a design model where buildings contributed to a unified plan, Hudnut would declare all attempts to bind universities to master plans failures. Instead, he advocated a layout of free-flowing "organic" development for campuses in which buildings could be conceived as individual components or objects—entities unto themselves—and which bore no relation to the rest of the campus composition.

Figure 39. Reed Hall (UGA.280). (Source: University of Georgia)

G.I. Bill (Servicemen's Readjustment Act of 1944) (1945–1960)

In 1944, U.S. Congress passed the Servicemen's Readjustment Act, also known as the G.I. Bill (of rights) that provided several benefits for World War II veterans. Administered through the Department of Veterans Administration, the bill provided grants for college tuition, among other benefits. Thousands of veterans took advantage of the program following World War II. The increase in enrollment in many colleges and universities led to a boom in housing and classroom construction. However, to meet the need, many schools used temporary facilities, recognizing that the increase in enrollment would later taper off.

Therefore, although World War II and the resulting G.I. Bill profoundly influenced campus planning for nearly two decades between 1941 and 1960, many of the imprints of the period were temporary and do not survive today.

At UGA, expansion did occur tangentially as a result of the G.I. Bill. In 1949, the State Legislature approved the creation of the University System Building Authority and gave it the power to finance campus projects. Soon after the Authority was in place, the University broke ground to build new housing facilities to address a severe shortage based on designs prepared by Driftmier and Hitchcock, resulting in the completion of

- Reed Hall, 1952 (UGA 280)
- Myers Hall, 1953 (UGA 1222)

Lingering social and societal impacts of the war, however, would contribute to the popularity of the Modernist style of architecture. Modernism would profoundly affect the character of buildings and landscapes at the University of Georgia as elsewhere in America.

Figure 40. Jackson Street Building (UGA.40). (Source: University of Georgia)

Midcentury Modern, circa 1945–1979

Figure 41. Kresge Auditorium and Chapel, Massachusetts Institute of Technology, Cambridge. (Source: Turner, 261)

It was not until after World War II that Modernism began to resonate with Americans. During the 1940s and 1950s, notable architects Eero Saarinen, Alvar Aalto, and Oscar Niemeyer produced important works that influenced American ideas about architecture. Following World War II, the Modern style became the choice of the artistic and intellectual avant-garde, and soon became the new architectural symbol of many academic institutions. The manner in which space was treated, however, was a great departure from the Beaux-Arts traditions that had been applied to campus design since the 1920s.

After World War II, campuses—long considered microcosms of cities—gradually became even more closely to resemble urban environments, including their attendant problems such as dense but fluid populations, conflicting land-use patterns, traffic congestion, and diverse interests. Modern architecture was seen as one way to alleviate some of these problems. The first attempt to introduce modern architecture to a campus in the United States was in 1956 at the Illinois

Institute of Technology, where Mies van der Rohe designed and built Crown Hall, his first steel-and-glass campus building. Although modern in appearance, the building also included classical planning ideals of hierarchical symmetrical organization and connections. The theoretical underpinning of free-flowing development inherent in Modernism soon resulted in physical changes on many college campuses, with buildings appearing ad hoc wherever there was space to site them. When land became a limiting factor, colleges began to expand vertically.

At the University of Georgia, a large number of academic and residential buildings were constructed in the mid-century Modern style, representing a dramatic change in approach. These buildings were constructed generally between 1956 and 1969.

Examples of Athens Campus buildings designed in the style include:

- Jackson Street Building (Visual Arts Building), 1962 (UGA 40)
- Addition to Hirsch Hall, 1967 (UGA 43)
- Journalism, Psychology, International Plaza Complex, 1969 (UGA 62, UGA 64, and UGA 66)

Urban renewal (1949–1966)

Many American cities initiated redevelopment programs in the 1930s and 1940s, which essentially took the form of slum clearance led by local public housing authorities working to build affordable new housing. The Housing Act of 1949, which was updated in 1954 with a financing component, was particularly influential in the process of what came was known at first as urban redevelopment, and later urban renewal. The Act provided federal funding to cities to acquire areas considered to be slums, which were then given to developers to construct new housing. Pittsburgh was the first major city to initiate a modern urban renewal project in 1950, sparked by the interest of R. K. Mellon. The project entailed demolition of a large area of downtown and replacement with parks, office buildings, and a sports arena. Later, other cities would follow. In Boston, about a third of the city was demolished. Given the focus on less well-off neighborhoods, novelist James Baldwin would later refer to urban renewal as “Negro Removal.” After many cities lost formerly vibrant communities in favor of sterile planned open spaces and building complexes, there was a backlash against urban renewal and it effectively ended in the early 1970s. Urban renewal and the wanton destruction of historic urban fabric would in effect lead to the National Historic Preservation Act of 1966.

Figure 42. Central area of the University of Illinois at Chicago Circle. (Source: Turner, 275)

In Athens, a neighborhood of modest homes was demolished to accommodate the Modernist collection of high rise dormitories located in the northwest corner of campus. Residents of the neighborhood were relocated to public housing nearby.

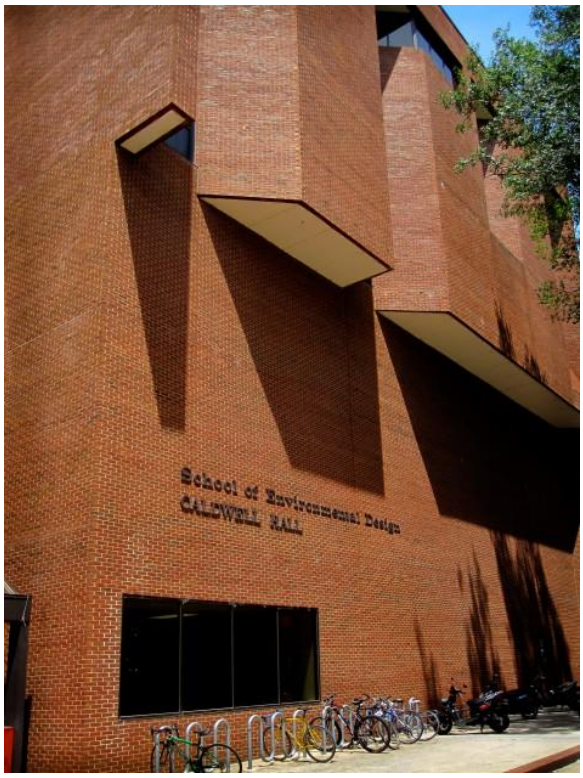

Figure 43. Caldwell Hall (UGA.46). (Source: University of Georgia)

Late and Post-Modernism, circa 1979–1990

By the late 1970s, Modernism began to fall out of favor, particularly due to the lack of historical references. Americans began to seek meaning in the past, and a new architecture emerged referred to as Post-Modernism. The style is associated with skeptical interpretations of earlier styles of architecture and sometimes referred to as deconstructivism and poststructuralism. Postmodernism is typically marked by revival of historical elements and techniques in a reimagined way.

A range of buildings with different stylistic treatments were constructed on campus that represent a maturing comfort with modern design.

Examples of late modern campus buildings include:

- Addition to Hirsch Hall, 1981 (UGA 43)
- Caldwell Hall, 1981 (UGA 46)
- Tate Student Center, 1978; 1983 (UGA 672)

Signature and Contemporary Architecture, circa 1990–2016

One of the other trends in campus planning and design that emerged at the end of the twentieth century was the use of works by notable architects to call attention to the importance of the university. Many public universities have been forced to supplement inadequate state funding with development campaigns dependent on private philanthropy, including that of alumni and others. “Signature” architects began to be commissioned by universities in the early 1990s to design buildings that would attract attention to their schools. The University of Cincinnati has been particularly successful in the use of this approach to transform the school from a commuter environment to a thriving activated live-in campus. The use of

signature architects to design singular works was considered an important tool in garnering financial support by generating excitement amongst alumni and other campus stakeholders. This trend can also be understood as a response to the emerging interests of students and what attracts them during this revolutionary era in communications technology, the rise of integrated disciplines, and rapid advances in the sciences. In particular, many students are a product of consumer culture, advanced information technology, and designer labels, with high expectations of the built environment.

Since the mid-1990s, the University has constructed a number of new buildings with contemporary stylistic treatments that evoke a level of creativity and experimentation. The importance of environmental sustainability as an international priority has found growing expression in several of these buildings.

Return to Traditions, circa 2000–2016

Today, it is recognized that subtle landscape and environmental gestures can make extensive, discontinuous campuses cohere into harmonious academic communities. University of Virginia University Architect, David Neuman, has said that a strong planning armature is the key to a successful campus, suggesting that neither memorable buildings nor distinctive landscapes by themselves can make a good campus. It is the interplay between the two; the order of the whole that counts.[185] Planning is the key to a comprehensive vision that integrates the physical campus with institutional identity. As Vassar College President Frances Daly Ferguson put it, without planning, "even the most beautifully situated campus can be ruined by poorly located buildings and bad open space."[186]

Concurrently with the introduction of contemporary design, the University has specifically emphasized the use of contemporary neoclassical architecture that represents a return to the architectural traditions of the Beaux-Arts period. However, today's buildings are much larger in scale and impact on the landscape. Return to Traditions was a particular focus institutionalized in the Architectural Design Standards included in the 1998 University of Georgia Physical Master Plan.

Many of the buildings associated with East Campus represent this context.

185. Nancy Levinson, "Campus planning is breaking new ground," *Architectural Record* 4 (2008): 88.
186. Ibid.

Figure 44. The Tobacco Pack House at Tifton (UGA 4651).

Vernacular Resources

Throughout the UGA system, there are numerous examples of vernacular architecture and built features. Some were acquired through purchase or donation by UGA, and have been adapted for University use as offices, classrooms, and housing. Others, particularly many of the research facilities associated with the experiment station and 4-H properties, were built to support a purpose that did not require an institutional scale or quality building.

Articulation of the historic contexts associated with the numerous vernacular buildings at UGA is beyond the scope of this study. However, future investigations into these contexts is merited whenever additional information is needed or warranted, such as prior to a proposed alteration.

A good source for further development of contexts associated with UGA vernacular resources, particularly those related to agricultural activities is *Tilling the Earth; Georgia's Historic Agricultural Heritage; A Context.*[187]

Transportation Resources

UGA has also developed as a result of the available transportation systems, including roads/highways and railroads. Although exploration of these systems is also beyond the scope of this study, the influence of state road building and rail lines on University development should also be considered as part of future historic context research as it may pertain to specific historic resources.

187. New South Associates, Inc., *Tilling the Earth; Georgia's Historic Agricultural Heritage; A Context* (Atlanta, Georgia: Georgia Department of Natural Resources and Georgia Department of Transportation, October 1, 2008).