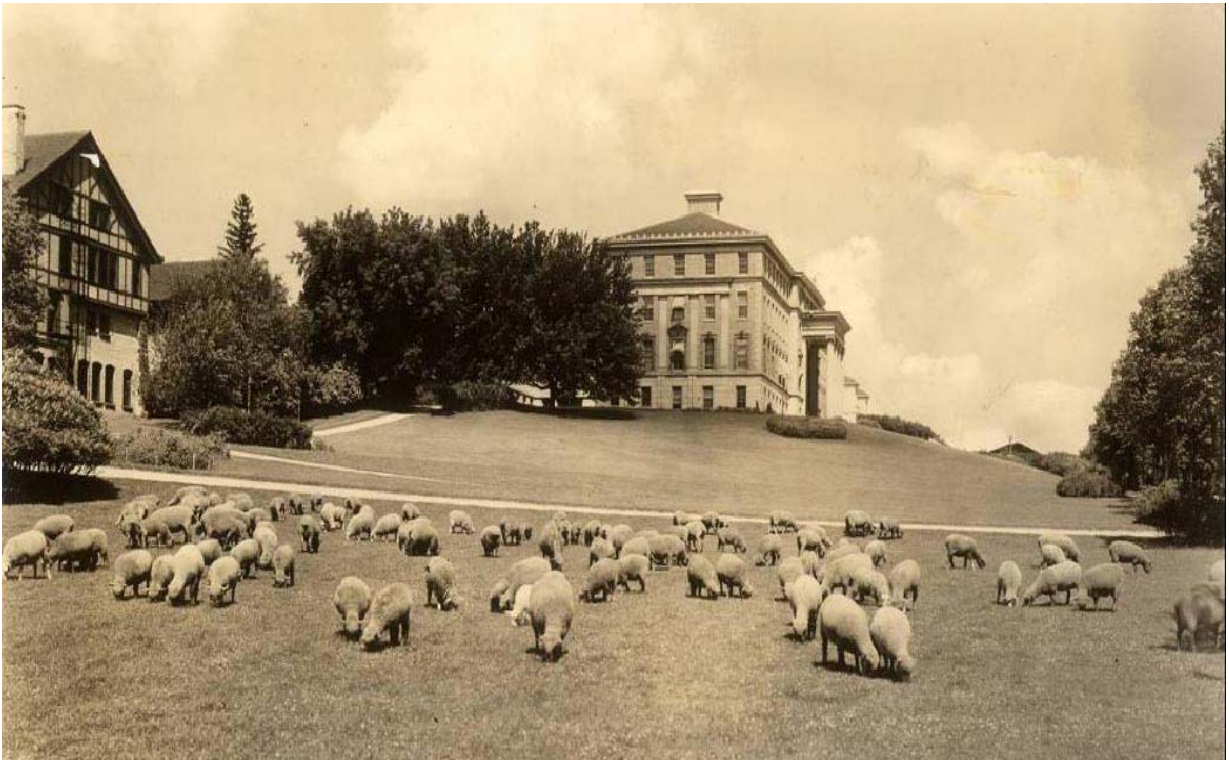




Agricultural Campus



Cultural Landscape Inventory

December 2005

(Revisions December 2011)

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DEFINITIONS

What is a “cultural landscape”?

The following document is based on concepts and techniques developed by the National Park Service. The NPS has produced a series of manuals for identifying, describing, and maintaining culturally significant landscapes within the national park system.¹

The National Park Service defines a **cultural landscape** as

a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein[,] associated with a historic event, activity, or person, or [one] that exhibits other cultural or aesthetic values.²

In 1925, geographer Carl Sauer (1889-1975) summarized the process that creates cultural landscapes: “Culture is the agent, the natural area is the medium, the cultural landscape the result.”³ Similarly, the writer J. B. Jackson (1909-1996) looked upon the landscape as a composition of spaces made or modified by humans “to serve as infrastructure or background for our collective existence.”⁴

What is a “cultural landscape inventory”? ⁵

This cultural landscape inventory for the agricultural campus is one of eight such studies completed as part of the UW-Madison Cultural Landscape Resource Plan. Each inventory defines the boundaries of a distinct cultural landscape on campus, summarizes its history, describes its current condition, and makes recommendations about its treatment. In addition to these eight cultural landscape inventories, two companion documents address the archaeology and overall history of the campus. This collection of documents is collectively entitled “Cultural Landscape Report for the University of Wisconsin-Madison.” Within the national park system, a **cultural landscape report** (CLR) serves as the primary guide to the treatment and use of a cultural landscape.

¹ The most recent and comprehensive of these publications is *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques*, published in 1998. Its lead author, Robert R. Page, is director of the Olmsted Center for Landscape Studies, based at the Frederick Law Olmsted National Historic Site in Charleston, Massachusetts: <http://www.nps.gov/oclp>

² Robert R. Page, Cathy A. Gilbert, and Susan A. Dolan, *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques* (Washington, DC: U. S. Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program, 1998), 129.

³ Carl Sauer, “The Morphology of Landscape,” in *Land and Life: A Selection from the Writings of Carl Ortwin Sauer*, ed. John Leighly (Berkeley: University of California Press, 1969), 343.

⁴ John Brinckerhoff Jackson, *Discovering the Vernacular Landscape* (New Haven, CT: Yale University Press, 1984), 8.

⁵ The term “cultural landscape inventory” is not to be confused with the NPS Cultural Landscapes Inventory (CLI), a computerized database of cultural landscapes within the national park system.

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NATIONAL REGISTER CRITERIA

Congress created the National Register of Historic Places in 1966, launching an ongoing census of historic properties. To be eligible for the National Register, a property must meet specific requirements. First and foremost, an eligible landscape must have significance: in American history, in architecture (including landscape architecture and planning), in archaeology, in engineering, or to specific cultures.

Understanding the historic context in which a landscape developed is key to determining its significance. To qualify for the National Register, a cultural landscape must be shown to be significant according to one or more of the four Criteria for Evaluation:

- A. Associated with events that have made a significant contribution to the broad patterns of our history, or
- B. Associated with the lives of persons significant in our past, or
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important to archaeological or historical knowledge.

Properties listed on the National Register of Historic Places are primarily of state or local significance. Nationally significant properties—such as UW-Madison’s Dairy Barn—may be designated National Historic Landmarks (NHL) by the Secretary of the Interior. NHLs also are listed on the National Register.

GENERAL INFORMATION

Inventory Unit Name: Agricultural Campus Historic Landscape

Current Names: College of Agricultural and Life Sciences (CALS)

Historic Names: University Farm, Wisconsin Agricultural Experiment Station, Agricultural College, Experimental Farm, College of Agriculture

Table 1: KEY TO PLACE NAMES

Extant properties

<i>Official Name⁶</i>	<i>Location</i>	<i>Other or former name(s)</i>
445 Henry Mall	445 Henry Mall	Genetics
Agricultural Bulletin Building	1535 Observatory Drive	Agricultural Heating Station, Dairy Machine Laboratory
Agricultural Dean's Residence	620 Babcock Drive	10 Babcock Drive, Lake Dormer
Agricultural Engineering	460 Henry Mall	
Agricultural Engineering Laboratory	540 Elm Drive	
Agricultural Hall	1450 Linden Drive	
Animal Health and Biomedical Sciences	1656 Linden Drive	Veterinary Science
Animal Science	1675 Observatory Drive	
Aust Rock Garden	East of Agricultural Hall	
Babcock Hall	1605 Linden Drive	Dairy Building (third)
Babcock Memorial Garden	450 Babcock Drive	
Biochemical Sciences	440 Henry Mall	Agronomy, Genetics, Agricultural Journalism
Biochemistry	420 Henry Mall	Agricultural Chemistry
Bock Laboratories, Robert M.	1525 Linden Drive	
Genetics-Biotechnology Center	425 Henry Mall	
Henry Mall		Henry Quadrangle, Lesser Mall
Horticulture	1575 Linden Drive	
Horse Barn	520 Elm Drive	Farm Barn, Main Barn
Nicholas Hall, Nancy	1300 Linden Drive	Human Ecology, Home

⁶ Space Management Office, University of Wisconsin-Madison, "Facility Name Registry," www2.fpm.wisc.edu/smo

		Economics and Extension
King Hall	1475 Observatory Drive	Horticulture and Agricultural Physics
Livestock Laboratory	1810 Linden Drive	
Marlatt, Abby L., Rock Garden	Southeast corner of Human Ecology	Marlatt Rock Garden
Meat Science and Muscle Biology Lab	1805 Linden	Animal Science, Meat and Muscle Lab
Livestock Laboratory	1810 Linden Drive	
Moore Hall-Agronomy	1575 Linden Drive	Horticulture-Moore Hall
Nutritional Sciences	1415 Linden Drive	Orthopedic Hospital
Observatory Hill/Agricultural Hall Mound Group	Observatory Hill	47DA-571: Archeological Site Inventory
Plant Sciences	1575 Linden Drive	
Russell Laboratories	1630 Linden Drive	Aldo Leopold Wing (1989 add.)
Soils	1525 Observatory Drive	Soil Science, Soils Annex
Smith Annex, Hiram	1555 Observatory Drive	
Smith Hall, Hiram	1545 Observatory Drive	Dairy Building (second)
Stock Pavilion	1675 Linden Drive	
Stovall Building, William D.-Hygiene Laboratory	465 Henry Mall	Stovall-Hygiene Lab, Stovall Laboratory of Hygiene
US Dairy Forage Research Center	1925 Linden Drive	
1645 Linden Drive	1645 Linden Drive	Farm Superintendent's House, Artist-in-Residence, Science House
1910 Linden Drive	1910 Linden Drive	Agronomy Seeds Building
2105 Linden Drive	2105 Linden Drive	Small Animal House
2115 Linden Drive	2115 Linden Drive	Animal Disease Laboratory
445 Henry Mall	445 Henry Mall	Genetics
4-H Club Knoll	Northwest of Agricultural Hall	

Non-extant properties

<i>Name</i>	<i>Status</i>
1430 Linden Drive	Former Home Management House, demolished to provide site for Nancy Nicholas Hall addition.
Babcock Garden (original location)	Re-located to provide site for Fred Hall. Garden re-established south and east of Babcock Hall.

Beef Barn	Built 1924, demolished in 1991 to provide site for Livestock Laboratory.
Dairy Building (original, east of Stock Pavilion)	Built in 1890, demolished in 1949 to provide site for Babcock Hall.
University Farm, Experimental Farm,	While certain farm activities continue on campus, nearly all fields used for crops fields and pastures have been converted to other uses.
Fred Hall, E.B	Built 1955, demolished 2004 to provide site for Microbial Sciences.
Pre-School Laboratory (1440 Linden Drive)	Former nursery school demolished to provide site for Nancy Nicholas Hall.
King House, (426 Farm Place)	Built 1889 for F.H. King, demolished in 1955 to provide site for Babcock Hall parking lot.
Russell House (424 Farm Place)	Built 1898 for Harry Russell, later Aldo Leopold office, demolished in 1964 to accommodate new Campus Drive.
Sheep Barn/Kleinheinz Hall	Built before 1911, demolished in 1952.
Temporary Buildings, T-1 to T-27	Built post-WWII, demolition dates vary.
Wisconsin High School	Built 1914, demolished in 1993 to provide site for Genetics-Biotechnology Center.

Commemorative Objects⁷

<i>Formal name</i>	<i>Location</i>	<i>Other names/notes</i>
4-H Club Circular Ring	4-H Club Knoll	4-H Club Circular Bench/Council Ring
4-H Club Knoll Boulder	Northwest of Agriculture Hall, base of knoll	Engraved boulder
Agricultural Hall NRHP Plaque	1450 Linden Drive, near main entrance	National Register of Historic Places plaque
Alexander Boulder and Elm	1656 Linden Drive, lawn area	
Babcock Memorial Garden Bench	Babcock Memorial Garden	
Dean William Arnon Henry Memorial Boulder	Henry Mall-south end, near University Avenue	Henry Boulder
Farrington, Edward H. Boulder	Near Hiram Smith Hall	
Fred, Rosa P. Boulder	1550 Linden Drive	
Henry and Babcock Boulder	1550 Linden Drive	
John Muir Scotch Pine	West of 4-H circular ring	
Klienheinz Boulder	1656 Linden Drive, south lawn	
Krumrey Boulder and Plaque	Near Hiram Smith, west side	Bas-relief portrait on plaque
Langdon Bench	West side of Agriculture Hall	Grace Langdon

⁷ Daniel Einstein, "UW Commemorative Objects, V. 11, Nov. 2011"

		Bench
Moore, Ransom Sugar Maple	4-H circular ring	
Pitman Fountain	West of Agriculture Hall	Jenny M. Pitman Fountain
CALS History Plaques	On and near Henry Mall	CALS Sesquicentennial Plaques
Short Course Flower Urns, Classes of 1922-1925	Steps of Agricultural Hall	
Sundquist Tree	Biochemistry courtyard	Kentucky coffeetree
William Dempster Hoard Memorial Statue	Henry Mall-north end, south of Linden Drive	Hoard Statue, Hoard Monument, Hoard Memorial

National Register Information: The Agricultural Campus Historic Landscape has not been previously evaluated as a distinct campus sector. Research indicates that the Agricultural Campus Historic Landscape includes properties that are significant at a state and local level according to National Register criteria A and C. The analysis section of this inventory includes information regarding the landscape characteristics.

The following properties are within the boundaries of the Agricultural Campus Historic Landscape. Property names are per the NRHP nomination document. See Table 1 for current official place names:

Sites:

The *Henry Mall Historic District* was documented in 1991 and entered in the National Register of Historic Places on January 22, 1992. The new district includes previously listed buildings, as well as additional structures, objects and sites.⁸

- Agricultural Hall: (listed 3/14/85)
- Agricultural Engineering: (listed 6/27/85)
- Agricultural Chemistry: (listed 6/19/85)
- Agronomy
- Henry Mall
- Hoard Statue
- Henry Boulder
- Stovall Laboratory of Hygiene (non-contributing)
- Genetics (non-contributing)

The *Observatory Hill/Agricultural Hall Mound Group* (Archaeological Site Inventory: 47DA-571) includes two effigy mounds on the crest of Observatory Hill (listed 3/31/04). Additional mounds in this group have been reported, but the above-ground features are no longer visible.

Buildings:

- Agricultural Dean's Residence: (listed NRHP 9/20/84)
- Agricultural Heating Station: (listed NRHP 3/14/85)
- Hiram Smith Hall and Annex: (listed NRHP 3/14/85)
- Horticulture and Agricultural Physics and Soil Science: (listed NRHP 3/14/85)
- Stock Pavilion: (listed NRHP 7/11/85)
- University of Wisconsin Dairy Barn (landmark designation 4/5/2005)

⁸ See *Henry Mall Cultural Landscape Inventory* for details.

Location Map:

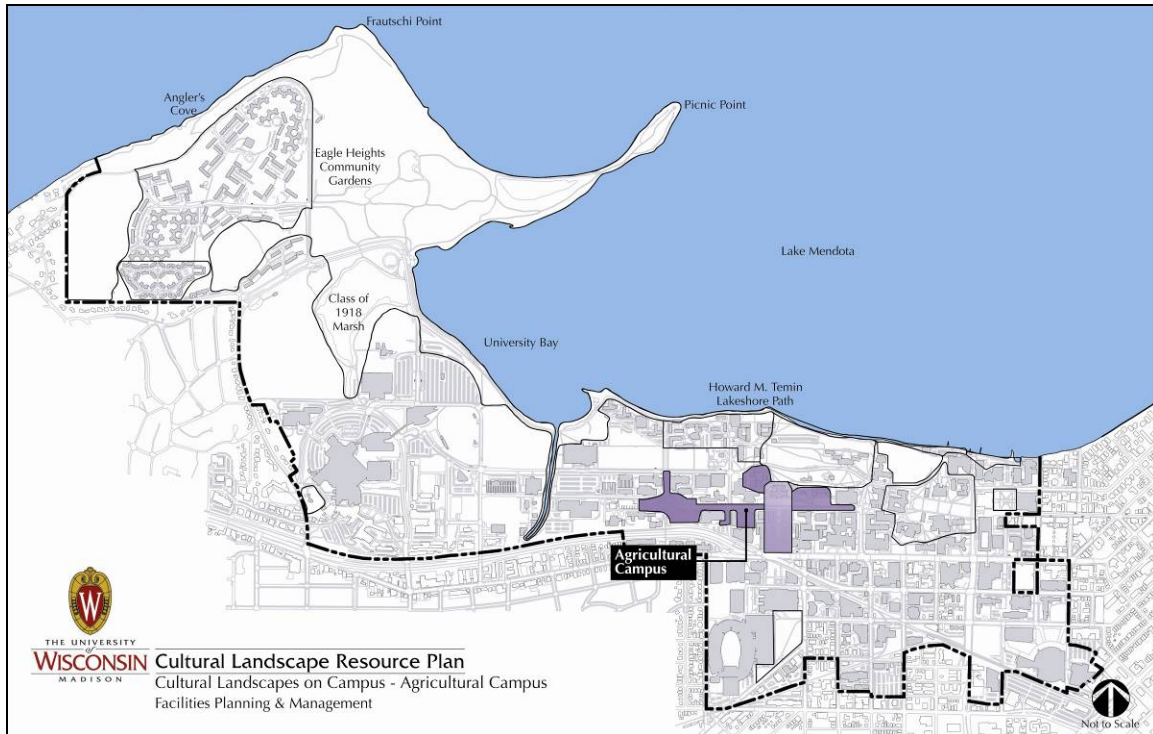


Figure 1: Location of agricultural campus landscape character areas, 2005.

Boundary Description: The eastern boundary of the agricultural campus is the intersection of Charter and Linden Drives. It extends to the north of Linden Drive to include Nancy Nicholas Hall (formerly Human Ecology). The crest of Observatory Hill serves as the northeastern edge. University Avenue forms the southern boundary east of Babcock Drive, while the railroad tracks serve this role on the west. The western boundary varies, with Walnut Street marking the approximate western edge of the original farm purchase of 1866.

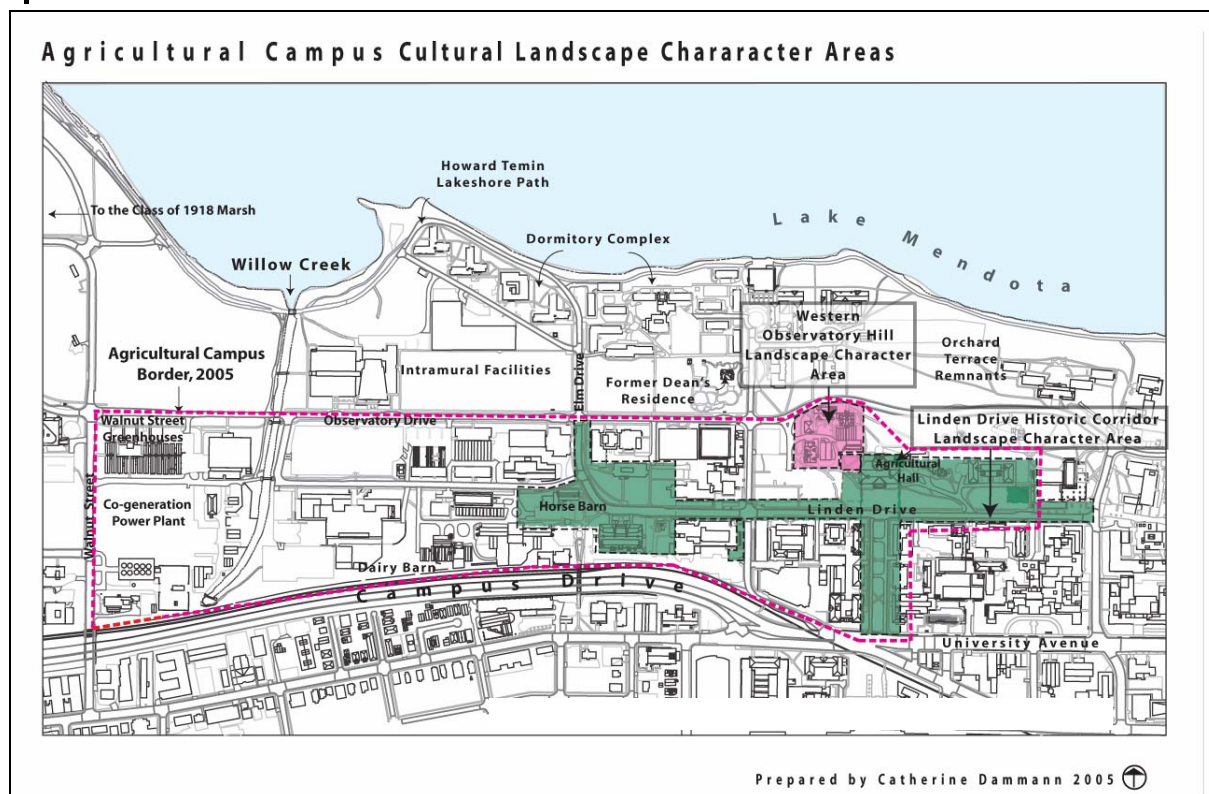


Figure 2: Agricultural campus border and landscape character areas, 2005.

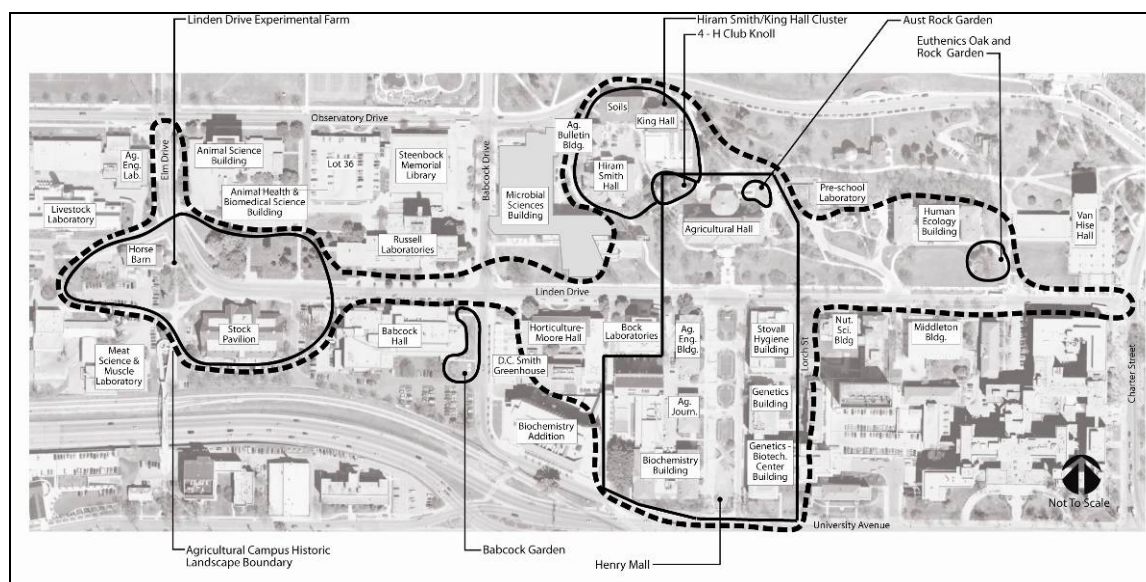


Figure 3: Landscape character areas with component landscapes, 2005.

Landscape Character Areas and Component Landscapes

Linden Drive:

- **Linden/ Elm Drive Farm Remnant:** The southern boundary extends from the southern elevation of the Stock Pavilion, and proceeds westward to the horse barn. The western boundary extends to the animal pen west of the horse barn as far as Linden Drive and includes the silos on the eastern elevation of the Dairy Cattle Center. The northern boundary extends to the southern elevation of the Animal Health and Biomedical Sciences building. The eastern boundary extends to the western elevation of Russell Laboratories and the eastern elevation of 1645 Linden Drive.
- **Babcock Memorial Garden:** The relocated garden extends from the southern sidewalk along Linden Drive to the northern limit of Babcock Hall parking lot, and to the east by Babcock Drive.
- **Henry Mall:** See the Cultural Landscape Project chapter: *Henry Mall Cultural Landscape Inventory*.
- **Aust Rock Garden:** The western border is due east of the eastern wing of Agricultural Hall; the eastern and northern borders are formed by the service drive extending to the north of Agricultural Hall, while the southern border is a parking area.
- **Marlatt Rock Garden:** The garden is circular, with the border approximately the width of the tree's canopy. The location of the garden is on the southeastern lawn of Nancy Nicholas Hall (formerly Human Ecology). South of the garden is the east/west sidewalk that parallels Linden Drive. A hedge of arborvitae and junipers (some dating to the installation of the garden in the late 1920s) remains northwest of the garden.

Western Observatory Hill:

- **Hiram Smith/King Hall Cluster:** This group of buildings is bordered on the western edge by Hiram Smith Hall and the Agricultural Bulletin building; to the north by Observatory Drive; and to the east by the King Hall greenhouses. The southern border extends to the southern edge of the service drive around the Hiram Smith Annex and the southern elevation of Hiram Smith Hall.
- **4-H Club Knoll:** To the north, the knoll is bordered by the edge of the steep lawn grade that extends to the cold frames currently used by the Physical Plant grounds department; to the east, as far as the effigy mounds; to the south the diagonal sidewalk that exists at its intersection with the sidewalk bordering Hiram Smith Annex. The 4-H Club Knoll marker is at this juncture. To the west the border extends to the eastern concrete retaining wall along the Hiram Smith Annex service drive.

CHRONOLOGY

Detailed chronology:⁹

- **1862:** United States Congress passes the first Morrill Land Grant.
- **1866:** Wisconsin legislature designates the University of Wisconsin as the recipient of the Morrill Land Grant, with 240,000 acres of state land providing the funding; 198 acres of land were purchased directly west of the university for a research farm.
- **1867- 1870:** Paul Chadbourne's term as president of the university. Though his term was short-lived, he was actively involved in the development of the farm near the intersection of Elm and Linden Drives. Much early work dealt with fruit research as the Wisconsin State Horticultural Society worked with the farm to create orchard selection experiments and to plant a vineyard on Observatory Hill. The early farm, however, languished with Chadbourne's resignation in 1870.
- **1868-1880:** Chemistry professor William Daniells serves as superintendent of the farm. Hired by Chadbourne, Daniells emphasizes traditional agricultural research: wheat, corn, rye and barley. The first orchard on Observatory Hill is planted.
- **1880-1907:** W.A. Henry is hired as the university's farm director and elevated to Dean of the College of Agriculture in 1889. Henry is the guiding force behind the rapid development of the Wisconsin Agricultural Experiment Station and the development of the College of Agriculture. He retires in 1907.
- **1880-1889:** As farm superintendent, Henry reorganizes the farm and redirects research to the dairy industry. He removes the orchard and vineyard from Observatory Hill.
- **1883:** The university farm is designated the Wisconsin Agricultural Experiment Station. This provides increased funding for agricultural research for the university.
- **1884:** The Vilas/Hitt Report provides justification for the Wisconsin Agricultural Experiment Station and College of Agriculture to remain in Madison. The report is instrumental in creating the Farmers' Institutes and the short course, two major contributors to the future growth of the College of Agriculture.
- **1887:** U.S. Congress passes the Hatch Act, providing additional land grants to fund agricultural research and education. The infusion of capital marks the beginning of major growth on the agricultural campus.
- **1888:** South Hall is officially designated Agricultural Hall.
- **1888:** Franklin H. King is hired to teach Agricultural Physics. He obtains permission from the university for the private-use of a tract of land near the present-day site of Babcock Hall south of Linden Drive.

⁹ Information for this chronology was gathered from a variety of sources, however, Jim Feldman's *Buildings of the University of Wisconsin*, (Madison: University of Wisconsin Archives, 1997).provided most of the data on building history.

Tenure of Dean W. A. Henry (1889-1907)

- **1889:** The College of Agriculture is officially established by the university and W.A. Henry is named agriculture dean. It is organized into four departments:
 1. Agriculture
 2. Horticulture and Economic Entomology
 3. Agricultural Chemistry
 4. Agricultural Physics (Soils)
- **1889-1892:** The first dairy school is established in a building initially constructed in 1881 and located at the western terminus of Linden Drive. The building is enlarged with a \$1,000 expenditure in 1889. The new school opens in January 1890 with two pupils in attendance. In 1891 over 70 students are enrolled.
- **1889-1901:** Emmett Goff is hired as the head of the Department of Horticulture. Interest is renewed in developing an orchard on Observatory Hill. A nursery and orchard are re-established on the western edge of the hill on land near Lake Mendota. Under Goff's direction, a horticulture building is constructed in 1894-96. Goff dies unexpectedly in 1901.
- **1889-late 1920s:** The orchard and horticultural grounds remain on the north side of Observatory Hill, a significant landscape feature that exists until the development of the lakeshore residence halls in the late 1920s.
- **1892-1951:** Hiram Smith Hall is constructed on the western edge of Observatory Hill, facing west toward the farm. Designed by Ferry and Clas, the building is the home of the dairy school until the construction of Babcock Hall in 1951.
- **1894-1922:** Wetlands on the western edge of the experimental farm are drained; success of drainage prompts the purchase of more wetland on University Bay. In 1914, the first successful drainage experiment using a self-regulating electric pump occurs. By 1921 the entire wetland is planted in corn.
- **1895-1896:** The Agricultural Dean's Residence is constructed near Lake Mendota and the horticultural fields.
- **1895-1931:** Ransom Moore is hired to run the short course program. He soon begins plant breeding experiments at the site of the future Stock Pavilion and is named the first head of the Department of Agronomy. Active in providing agricultural education to Wisconsin children, Moore leads the establishment of 4-H clubs throughout the state. He retires in 1931.
- **1897:** The university purchases Hill Farms for agricultural research. The 600-acre farm is located between University Avenue and Mineral Point Road (north/south) and Midvale Boulevard and Rosa Road (east/west).
- **1898:** Harry Russell buys an adjacent tract of land from F.H. King and then constructs a house next to the King residence and barn.
- **1898:** The Agricultural Heating Station (currently the Agricultural Bulletin building) is constructed.
- **1898:** The Dairy Barn, designed by architect J.T. Jennings is built.
- **1899:** The main barn, built in 1867-68, is renovated under the direction of Jennings and becomes the Horse Barn.
- **1901:** The farm superintendent's house is moved to its current location at 438 Farm Place (current official building name: 1645 Linden Drive). Professor George C.

- Humphries in Animal Husbandry lives there until he retires in 1942. The Dairy Building (original) is also moved at this time. Box Elder Drive is renamed Farm Place.
- **1901:** Jennings designs a two-story northern addition to Hiram Smith Hall.
 - **1903:** Agricultural Hall, designed by Jennings, is dedicated; the building represents the culmination of the progress and diversification of the agricultural campus under Dean Henry's direction.
 - **1903:** Access to the experimental farm is greatly increased by a "macadam" road built from the marsh bridge on Willow Creek easterly along the lakeshore drive and southward to the horse barn (Elm Drive). It connects to the western end of Linden Drive.
 - **1903:** The state legislature approves \$15,000 for a farm engineering building.
 - **1905:** The university purchases three acres of land south of Linden Drive for the new Agricultural Engineering building. Another 2.75 acre tract at the corner of Linden Drive and Farm Place is also purchased.
 - **1900-1906:** Aesthetics begins to have a more prominent role on the agricultural campus. O.C. Simonds is hired by the university for several projects during this period. In March 1906 Simonds presents his master plan for the university including the agricultural campus. He proposes a linear mall from the new Agricultural Hall to University Avenue.
 - **1906-1907:** Both the Agricultural Engineering and the Agronomy buildings are constructed.

Tenure of Dean Harry Russell (1907-1931):

- **1907:** Harry Luman Russell becomes Dean of the College of Agriculture. Under Russell's tenure, numerous departments are established, and a new emphasis on experimental quantification of agricultural research and the specialization of agriculture into diverse fields begins.
- **1907:** Dean Russell rents his former home to the university. It becomes the home of Department of Economic Entomology.
- **1908-1914:** Warren Laird and Paul Cret are hired by UW President Charles Van Hise. Their 1908 master plan changes land use on the agricultural campus. They propose residence halls, recreation fields, and athletic facilities on university farmland. Modifications to their original plan include the 1909 decision to move the Department of Horticulture to a new location west of the Agricultural Engineering building. Other modifications to the plan include an addition to the Soils building, and the shifting of athletic facilities to Camp Randall.
- **1909:** The Stock Pavilion ("Cowlesium") designed by architects Warren Laird and Paul Cret is constructed in 1909.
- **1910:** The Hiram Smith Annex is constructed.
- **1912-1916:** Linden Drive is widened and trees are replanted.
- **1912:** The Home Economics building is constructed.
- **1912:** The Agricultural Chemistry building is constructed south of the Agronomy building.
- **1912:** The Tent Colony along the Lake Mendota shoreline opens.

- **1913:** The Pharmaceutical Experiment Station begins operation at Camp Randall, later relocating to the University Bay area.
- **1914:** The Wisconsin High School is constructed on Henry Mall to the south of Agricultural Hall.
- **1914:** The Soils wing, designed by Paul Cret, is added to King Hall. It brings a more formal courtyard structure to the Hiram Smith/King Hall cluster of buildings.
- **1915-1939:** Franz Aust is hired by the Department of Horticulture. He supervises the university landscape at this time. His campus work includes:
 1. Russell Lotus Beds in University Bay, the late 1920s
 2. Aust Rock Garden next to Agricultural Hall, early 1930s
 3. Abby Marlatt Rock Garden, late 1920s
 4. Babcock Memorial Garden, 1932
 5. 4-H Club Knoll, 1929 through 1941
- **1924-1964:** Landscape architect G.W. Longenecker is hired, working first under Franz Aust, and later as the first chairperson of the Department of Landscape Architecture.
- **1922:** The Hoard Memorial is constructed on Henry Mall.
- **1924:** The landscaped interior of Henry Mall is constructed, including roads, lawn, and other vegetation. Henry Mall is dedicated.
- **1925:** The Henry boulder and plaque are installed on the southern edge of the mall, designating the site as the “Henry Quadrangle.”
- **1924:** The beef barn is constructed at 1810 Linden Drive northwest of the horse barn, where the Dairy Cattle Center is located today.
- **1925:** Wisconsin Alumni Research Foundation (WARF) is established to administer university patents; it becomes an important source of future university research and infrastructure funding.
- **1925:** With funds from the legislature, two additional greenhouse groups are constructed south of the Horticulture building on Linden Drive.
- **1926:** The Van Hise Dormitories (Tripp and Adams Halls) are completed and occupied and intramural fields and tennis courts are constructed. An era of land-use conflict between intramural sports facilities and agricultural research plots ensues.
- **1927:** Campus architect Arthur Peabody updates the 1908 Laird and Cret master plan.
- **1928:** The university purchases the Russell property on Farm Place. Aldo Leopold’s Department of Wildlife Management occupies the building.

Tenure of Dean Chris Christensen (1931-1943)

- **1931:** The Animal Science building (currently Meat Science and Muscle Biology Lab) is constructed west of the Stock Pavilion. Intended as a part of a quadrangle of animal research buildings, the Depression delays additional development.
- **1931:** The Moore Hall-Agronomy wing is added to Horticulture building.
- **1932:** A WWI Student Army Training Corps barrack is moved from Camp Randall to an area directly south of the Stock Pavilion. It is converted to a research space

- for the Forest Products Laboratory, and then remodeled for use as a short course dormitory.
- **1932:** Babcock Memorial Garden is proposed. Designed by Franz Aust and G.W. Longenecker, the new garden is constructed west of Hiram Smith Hall in 1933.
- **1933:** Due to a loss of funding support, operations at the Pharmaceutical Experiment Station (near University Bay and Lake Mendota Drives) are discontinued.
- **1934:** The sheep barn is remodeled to accommodate short course students. It is renamed Kleinheinz Hall in honor of university sheepherder, Frank Kleinheinz.
- **1934:** Observatory Drive from Babcock Drive to Charter Street is constructed.
- **1937:** Agricultural Chemistry department name is changed to Biochemistry.
- **1938:** The first buildings in the Kronshage Hall dormitory group are completed: Turner House, Gilman House, and Mack House.
- **1939:** The second group of Kronshage Hall buildings is
- completed: Showerman House, Conover House, Jones House, Chamberlin House and Swenson House.
- **1939:** The Animal Disease Laboratory, (current official building name: 2115 Linden Drive) is built with WPA funds.
- **1939:** An addition to the Agricultural Chemistry building, designed by local architects, Law, Law and Potter, is completed using WARF funds. This is the first time WARF supports a building project.
- **1940:** Home Economics moves out of original Practice Cottage.
- **1940:** The Agronomy Seeds building (current official building name: 1910 Linden Drive) is constructed.
- **1941:** Campus master plan prepared by the Wisconsin State Planning Board, states that functional needs are supplanting aesthetics on the agricultural campus.
- **1941:** Home Management House is completed, sited between Agricultural Hall and Home Economics.
- **1941:** The Small Animal House (current official building name: 2105 Linden Drive) is built to study viruses. Located away from other animal buildings, it is informally known as the “polio lab” in reference to research studies on infantile paralysis conducted here.
- **1942:** Professor G. C. Humphries retires and moves out of the farm superintendent’s house at 438 Farm Place. Other faculty occupy the house until 1947.
- **1942:** Considered a fire hazard, the Kleinheinz Dormitory is condemned but still used on a limited basis for student occupation.

Tenure of Dean Edwin B. Fred (1943-1945)

- **1943:** E.B. Fred moves into the Agricultural Dean’s Residence. Following his promotion to university president in 1945 he is permitted to remain in the house. He remains there until his death in 1981.

Tenure of Dean Ira L. Baldwin (1945-1948)

- **1947:** Home Economic Extension occupies the former farm superintendent's house, 438 Farm Place.
- **1947:** The board of regents allows the city to annex twenty acres of the East Hill Farms. The westward development of Madison following the war impacts the research farm.

Tenure of Dean Rudolph K. Froker (1948-1964)

- **1949:** The dairy building (original-constructed in 1880) is demolished to make way for Babcock Hall.
- **1949:** Short course dormitories are completed after ten years of planning near the Agricultural Dean's Residence. The two dormitories, Humphrey Hall and Jorns Hall, are named after the two professors instrumental in the development of the short course. These are the first buildings constructed with state appropriations since 1930.
- **1951:** Babcock Drive is relocated 150 feet to the west. Babcock Memorial Garden is removed from its original location.
- **1951:** Dairy instruction moves out of Hiram Smith Hall and into Babcock Hall.
- **1951:** The Department of Poultry Science moves its offices from University Avenue to Hiram Smith Hall.
- **1951:** The Small Animal House (currently named "2105 Linden Drive") is remodeled for research on mink and fox under the direction of Dr. Richard Shakelford. The building is renamed the Virus and Fur Research building.
- **1951:** The original Practice Cottage is demolished and the Stovall Hygiene Laboratory is built in its place at the northeast corner of Henry Mall.
- **1951:** The west addition to Home Economics is completed.
- **1952:** The sheep barn (Kleinheinz Hall) is torn down. The Dairy Cattle Center is built on the site.
- **1953:** The legislature authorizes the board of regents to dispose of all University of Wisconsin farm land located between University Avenue and Mineral Point Road (Hill Farms).
- **1953:** Hiram Smith Annex is remodeled for the Department of Veterinary Medicine.
- **1954:** The Dairy Cattle Center is completed, visually disconnecting the Dairy Barn from other historic farm buildings: in particular, the horse barn and the Stock Pavilion, to the east.
- **1954:** The first phase of the Walnut Street Greenhouses is completed to house College of Agriculture research.
- **1955:** The Arlington Agricultural Research Station is established. It replaces the agricultural research plots at Hill Farms. Agricultural research is farther removed from the original experimental farm.
- **1955:** E.B. Fred Hall is completed.
- **1955:** The King House is demolished to make way for a parking at Babcock Hall.
- **1956:** A crematorium is added to the rear of the Animal Disease Lab (current official building name: 2115 Linden Drive).

- **1953-57:** Addition to the Biochemistry building is constructed.
- **1957:** The Pre-school Laboratory, sited between Agricultural Hall and the Home Economics building (currently Nancy Nicholas Hall), is completed.
- **1957:** The Poultry Research Laboratory is constructed on Observatory Drive.
- **1958:** The Natatorium construction site is selected on Observatory Drive, opening in 1962.
- **1958:** Additional greenhouses are built at the Walnut Street location using money contributed by the Wisconsin Cannery Association.
- **1959:** The last of the Department of Poultry Science moves out of the old poultry husbandry buildings on University Avenue.
- **1959:** An L-shaped addition to the eastern and northern sides of the Animal Science building (currently Meat Science and Muscle Biology Lab) is constructed.
- **1959:** The Elm Drive Dormitories (currently Goodnight Hall, Vel Phillips Hall, 1925 Willow Drive and Bradley Hall) are completed.
- **1960:** The Agricultural Engineering Laboratory is constructed (first phase) at Linden and Elm Drives.
- **1960:** The Stock Breeder Association and the Department of Entomology move into the former poultry husbandry buildings on University Avenue.
- **1961:** The Genetics building (current official building name: 445 Henry Mall) is completed. This building brings a mid-century modern architecture aesthetic to the City Beautiful-inspired Henry Mall.
- **1961:** Dairy Science moves its offices into the Agronomy building on Henry Mall (the building is currently appended to the Biochemical Sciences building).
- **1962:** The Tent Colony closes after 50 years of providing summer session students an inexpensive summer housing option.
- **1962:** The Department of Poultry Science occupies the Hiram Smith Annex.
- **1962:** Home Economic Extension moves out of the former farm superintendent's house at 438 Farm Place (current official building name: 1645 Linden Drive). After major remodeling, the building becomes Artist-in-Residence Aaron Bohrod's studio.
- **1962:** Cooperative Extension moves out of Home Economics (currently Nancy Nicholas Hall) and into its new building at 632 Lake Street.
- **1963:** Entomology becomes the sole tenant of the old poultry husbandry buildings on University Avenue.
- **1963:** Phase 1 of the Natatorium opens.
- **1963:** The Observatory Drive extension is completed between Babcock Drive and Elm Drive.
- **1964:** The Russell House, built in 1898 is demolished in conjunction with the relocation of railroad tracks and the creation of Campus Drive.
- **Mid-1960s:** The Home Management house is converted to office space.

Tenure of Dean Glenn S. Pound (1964-1979)

- **1964:** The UW Computing Center occupies the old poultry husbandry buildings on University Avenue.

- **1965:** The Veterinary Science building (currently Animal Health and Biomedical Sciences building) opens near the corner of Elm and Linden Drives. This building, together with Russell Laboratories, is constructed on the ornamental lawn that once connected the horse barn and Agricultural Hall.
- **1965:** The first phase of Russell Laboratories is completed at the corner of Babcock and Linden Drives. It houses Entomology, Plant Pathology, Forestry and Wildlife Ecology.
- **1966:** Bock Laboratories, an interdisciplinary building (Bacteriology, Biochemistry, Genetics, Medical Genetics, Oncology, Physical Chemistry and Zoology), is constructed on Linden Drive.
- **1967:** Phase 2 of the Natatorium opens.
- **1967:** The Biotron building is completed at a site between Willow Creek and the Walnut Street Greenhouses, south of Observatory Drive.
- **1967:** The Crew House is constructed at the north end of Babcock Street.
- **1968:** Nielsen Tennis Stadium constructed.
- **1968:** The second phase of the Agricultural Engineering Laboratory is completed.
- **1968:** The third addition to the Walnut Street Greenhouses is constructed.
- **1969:** Steenbock Library is completed at the corner of Babcock and Observatory Drives.
- **1969:** The Rehabilitation Counseling Center occupies former poultry husbandry buildings.
- **1969:** The Department of Soils moves into the Hiram Smith Annex.
- **1969:** A final addition to Meat Science and Muscle Biology Lab is constructed.
- **1970:** The board of regents approves a plan for the relocation of the University Hospital to its current location on University Bay Drive.
- **1970:** The WARF building on Walnut Avenue is ready for occupation.
- **1972:** The Animal Science building is constructed on Observatory Drive to provide lab and research space for various disciplines in CALS.
- **1972, May 19:** The Class of 1918 Marsh is dedicated on the site of the former wetlands that were drained for agricultural use.
- **1973:** The Waisman Center opens.
- **1973:** Agriculture and Extension moves into 1645 Linden Drive.
- **1974-1981:** the Department of Landscape Architecture (academic department) occupies 1645 Linden Drive.
- **1975:** Sea Grant Institute moves to the former Poultry Husbandry building (current official building name: 1800 University Ave.).
- **1975:** Entomology/Horticulture moves to the Animal Disease Lab; Food Research Institute moves to Elm Drive.
- **1978-79** The first phase of the University of Wisconsin Hospital on University Bay Drive is completed.

Dean Leo M. Walsh (1979-1991)

- **1979:** A three-level addition expands E.B. Fred Hall.
- **1980:** A major interior renovation to King Hall occurs.

- **1981:** The US Dairy Forage Research Center opens. It further disconnects the Dairy Barn from the other historic farm structures on the agricultural campus.
- **1982-1991:** Food Science occupies 1645 Linden Drive.
- **1982:** The third phase of the Agricultural Engineering Laboratory is completed.
- **1983:** The Veterinary Medicine building opens across from the Natatorium.
- **1983:** The Plant Science addition to the Horticulture building is completed.
- **1984:** Agricultural Chemistry (currently Biochemistry) receives another addition.
- **1989:** The Allen Centennial Gardens are established adjacent to the Agricultural Dean's Residence.
- **1990:** An addition is made to Russell Laboratories.

Dean Roger Wyse (1992-1998)

- **1992:** An addition to Babcock Hall is completed.
- **1993:** The Center for Environmental Awareness occupies 1645 Linden Drive following a major renovation.
- **1993:** The Livestock Laboratory is constructed at the site of the beef and swine barns at 1810 Linden.
- **1995:** The Genetics-Biotechnology Center building is constructed at the site of the Wisconsin High School on Henry Mall.
- **1996:** Horticulture greenhouses on Babcock Drive are removed to accommodate the Biochemistry Addition.
- **1997:** Bock Laboratories are remodeled for Molecular Biology and Molecular Virology.

Dean Elton Aberle (1998-2005)

- **2001:** Rennebohm Hall, housing the School of Pharmacy, is dedicated.
- **2003-2005:** A co-generation power plant is constructed on Walnut Avenue.
- **2004:** Porter Boathouse is constructed at the northern end of Babcock Drive, blocking a significant view to Lake Mendota.
- **2004:** E.B. Fred Hall is demolished to accommodate the Microbial Sciences building.
- **2004-2005:** Walnut Street Greenhouses are re-built. An arborvitae hedge is removed between the greenhouses and Observatory Drive.

STATEMENT OF SIGNIFICANCE

Statement of Significance:

Most of the land on the University of Wisconsin-Madison campus west of Bascom Hall has been used for agricultural-related activities at some point over the last 150 years. As is the case with many land grant colleges, orchards, pasture, vineyards, and experimental plots for various crops created a rural scene on campus during the late 19th and early 20th centuries. As the university grew, development engulfed land formerly used for agricultural research and the rural character of the landscape gradually diminished. Research plots and other agricultural endeavors shifted to other locations as buildings, roads, and sidewalks were constructed in their place. Even despite development pressures, the association between land and lake and between “town and gown,” weighed heavily on decisions made regarding new development. Early campus planning emphasized broad applications of a design style to create spaces that have withstood the test of time. Several of these spaces retain integrity related to the historic significance of the campus landscape. They serve as visual reminders of campus heritage and of shared memories.

The agricultural campus appears, at first glance, to be a haphazard collection of buildings, open space, parking lots, and sidewalks that have developed in response to functional needs. Understanding the historical development of the campus, however, reveals buildings and landscapes formerly used for agricultural pursuits that gained importance and value through their relationships to scientific agriculture and agricultural education in Wisconsin. Portions of a significant master plan for campus are also apparent. These pieces of history, in the form of landscape components and features, have endured and today provide opportunities for representing historic connections between people and the land. They can also serve as an appropriate foundation to base planning for the future of campus landscapes.

Portions of the agricultural campus landscape are significant according to National Register criterion A due to their relationship to the development of scientific agriculture in the United States and to agricultural education in the state of Wisconsin. The College of Agriculture and the experimental farm were major contributors to the development of agriculture in Wisconsin. Early work in dairy research, animal husbandry, soil physics, and agricultural engineering was instrumental in converting the wheat-based farm economy of the mid-19th century to a predominately dairy-based economy by the early twentieth century. Today, the state of Wisconsin accounts for 15 percent of the national milk supply and 31 percent of U.S. cheese production each year. The college also contributed to the development of agricultural education in Wisconsin. Youth programs, Farmers’ Institutes, and short- and long- course studies in agriculture all helped to advance scientific agriculture in Wisconsin. Extant buildings and landscapes provide links to this significant past.

A portion of the agricultural campus landscape is also significant according to National Register criterion C. In the 1890s, interest in planning, architecture and landscape

architecture influenced landscape form in the agricultural campus. Chicago architect J.T. Jennings and landscape architect O.C. Simonds were hired in the late 1890s to provide aesthetic guidance, ushering in an era of major improvements in infrastructure and building initiatives. Simonds' romantic garden aesthetic was evident in the layout of roads, open space, and the placement of trees. Jennings' Norman-influenced buildings, built throughout the campus, contributed to this romantic aesthetic. The construction of the Beaux Arts- inspired Agricultural Hall in 1901 began the era of the City Beautiful movement on the agricultural campus. Architects Warren Laird and Paul Cret, working with university architect Arthur Peabody, reinforced this influence with their monumental campus plan of 1908. Their work is most closely identified with the development of Henry Mall, the axial placement of the Horticulture building, the development of the Hiram Smith/King Hall cluster courtyard, and the organization of land use at the agricultural campus. A romantic prairie landscape aesthetic returned with the hiring of landscape architect Franz Aust in 1915 and later his protégé G.W. Longenecker. Symbolic gardens and tree plantings became common in the 1920s and 1930s, inspired by the naturalistic landscaping movement and the work of landscape designer Jens Jensen. This style was not applied to the overall master plan, but did influence the appearance of plantings within landscapes. Remnants of each of these design styles, romantic prairie and symbolic gardens, remain today with enough extant features to retain landscape integrity.

Periods of Significance for the Agricultural Campus Landscape:

- 1866-1880: Early development of the agricultural landscape
- 1880-1907: Dean Henry era of scientific agriculture and the prairie romantic aesthetic
- 1907-1941: Agricultural diversification, the influence of the City Beautiful movement, and the naturalistic style of landscaping

Period of Significance 1866-1880:

Early development of the agricultural landscape

The first Morrill Land Grant passed in 1862. It provided grants to states in the form of land for the establishment of public institutions to teach agriculture and mechanics. The Wisconsin legislature used its grant to establish agricultural education at the University of Wisconsin. In 1866, 198 acres west of the existing college property on Bascom Hill were purchased for agricultural research and applied education.¹⁰ The development of the university farm began a new era of emphasis on applied education and scientific agriculture at the university.

¹⁰ Arthur Hove. "Wisconsin: Land Grant College for 100 years," *Wisconsin Alumnus Magazine* 63, no. 13 (May 1962) pp. unnumbered-19.

Linden Drive (formerly State Street) provided the main access route west to the new farm. The early layout and construction of the road was completed in 1869.¹¹ Linden Drive began at Mary Street (currently Charter Street) and extended to the west. The farm was located to the north of Linden Drive, with private city lots to the south of the road. Many maps from city sources and the University of Wisconsin course catalogs indicate a divided road on the eastern portion of Linden Drive adjacent to the privately owned city lots. The name State Street appeared in city phonebooks for Linden Drive well into the 1880s. Early records indicate the planting of a Norway spruce windbreak along the southern boundary (State/Linden Drive) of the farm in 1869. By 1875 shade trees were planted along its alignment.¹²

Early work on the university farm involved clearing land, planting an orchard and vineyard, and setting up basic experiments. Under the direction of William Daniells, the first professor of agriculture and chemistry, research focused on traditional crop agriculture, with numerous studies testing wheat, oats, barley, rye and corn varieties. A farmhouse and main barn were completed in 1869 at the western end of Linden Drive. The buildings were the center of early farm activity.¹³

A network of roads was constructed on the farm including a pleasure drive along Lake Mendota.¹⁴ While the university farm languished, the farm roads were used by the public as pleasure drives, twenty years prior to the development of the Madison Park and Pleasure Drive Association.¹⁵

Some of the earliest activity on the new farm occurred on Observatory Hill. The northern slope of the hill was considered ideal for orchard research. The Wisconsin State Horticultural Society in conjunction with the university farm began fruit selection trial experiments there in 1869. A vineyard and orchard were planted on the southern slope at the same time.¹⁶ An orchard was associated with Observatory Hill until the 1930s. The 1870s, however, was a decade of minimal growth and setbacks for agriculture at the university. With the hiring of William Arnon Henry as farm supervisor in 1880, dairy research took prominence over the orchard.

¹¹William Daniells' Farm Report, addendum to the Board of Regents Report, University of Wisconsin, 1869.

¹²"The farm hands are busy planting shade trees in the street bordering the University Park," *University Press*, May 15, 1873, 275.

¹³Daniells, William. "Report of the Farm Committee," *Board of Regent Reports*, University of Wisconsin-Madison, 1868-69 volume.

¹⁴Ibid.

¹⁵"We call the attention to the elite of Madison who enjoy carriage riding to the fact that the finest drive in the state is down the lake shore; west of the University. If anyone doubts what we say let him get in his carriage and come over and try it, then if he don't say we are right about it, we will agree to send him a copy of the Press free for six months and that we know will raise his standing morally and intellectually so that he will be able to see the beauties of nature better than ever before." *University Press*, Vol. 1 No.3, August 1870, 23.

¹⁶James G. Moore, "Agriculture in the University of Wisconsin." Madison, Wisconsin: Typewritten manuscript, available from the University of Wisconsin Library System, 1955.

Period of Significance 1880-1907:

Dean Henry era of scientific agriculture and the prairie romantic aesthetic

The dedication of university regent and state dairyman Hiram Smith, along with the subsequent hiring of William A. Henry as farm supervisor in 1880, changed the direction and influence of the university farm on both the state and its farmers.¹⁷ Under Smith's guidance, dairy research took precedence over grain experiments at the university. Officially designated an Agriculture Experiment Station in 1883, the farm was soon providing dairy farmers with the direct economic benefits gained through research in all aspects of dairy farming, from animal husbandry to milk and cheese production. Research developments had applications beyond the dairy industry; too, aiding Wisconsin's other agricultural industries including canning, seed distribution and crop production (mainly corn, beet, alfalfa, tobacco, fruit, cabbage, barley, and potato). The hiring of Emmett Goff in the horticulture department in 1889 renewed interest in the orchard, and soon a nursery and orchard area was flourishing on the western slope of Observatory Hill.

The founding of the College of Agriculture in 1889 ushered in an era of increased emphasis on landscape aesthetics as well as a building expansion on the experimental farm. Landscape gardener Ossian Cole (O.C.) Simonds was employed periodically from the late 1890s until 1906 by the regents for landscape projects throughout the campus, including in the agricultural campus. At the same time, he was working with the Madison Park and Pleasure Drive to create Willow Drive on University Bay, just west of the experimental farm. Simonds, along with campus architect J.T. Jennings (hired in 1894), introduced stylized farm buildings, curving roads, romantic lawns and plantings for the farm and college.¹⁸

Within the Linden Drive landscape character area, they renovated the horse barn in 1899, realigned the road into a simple curve, and relocated the farm superintendent's house, the dairy building, and another farm residence to the east along a new road, Farm Place. References to cleaning up building sites, neatening up research plots, and laying down macadam drives and concrete sidewalks were present throughout the early 1900 correspondence of agricultural officials.¹⁹ In 1902, associate professor of horticulture Emil Sandsten was hired, (to replace recently deceased Prof. Goff) to oversee the maintenance of the campus grounds. Further east, a new central agricultural building was constructed on Linden Drive in 1901, providing the agriculture campus with a distinct identity from Bascom Hill. A dramatic lawn, symbolically and physically linking the new Agricultural Hall to the horse barn, was installed in 1904.²⁰ A master plan by Simonds in

¹⁷ Wilbur H. Glover, *Farm and College* (Madison: University of Wisconsin Press, 1952).

¹⁸ University of Wisconsin Board of Regents Minutes, June 19, 1901: "Some sketches of parts of the grounds of the University, made by landscape gardener Simonds, were submitted by superintending Architect Jennings, as well as other sketches of the grounds. These were examined by the regents and discussed with the general question of the location of the buildings to be built in the future."

¹⁹ *Daily Cardinal*, "Beautify the Landscape" May 3, 1898, 2; also W.A. Henry, Wisconsin Agricultural Experiment Station Report (1905).

²⁰ Henry, W.A. Wisconsin Agricultural Experiment Station Report (1905).

1906 proposed an agricultural mall extending from the newly constructed Agricultural Hall south to University Avenue. With the purchase of private city lots to the south of Linden Drive in the early 1900s, the first college buildings south of Agricultural Hall, Agronomy (currently appended to Biochemical Sciences) and Agricultural Engineering were constructed in 1907.

Period of Significance 1900-1941:

Agricultural diversification and the influence of the City Beautiful movement and the naturalistic style of landscaping

This period began in 1900 when the style and site for Agricultural Hall were finalized, and ended in 1941, when a master plan for the campus broke from the City Beautiful concept and addressed growth with a purely functional approach. With the retirement of Dean Henry in 1907, Harry Russell, a leading professor in bacteriology, was hired as the new dean of the College of Agriculture. While Henry had been a broad visionary with political influence at the state level, Russell was a scientist, who saw great potential in the diversification of the college into numerous fields of study. Under his leadership, new departments were established including Home Economics in 1909, Experimental Breeding (Genetics) and Poultry in 1910. The addition of these college departments, together with rising student enrollments, created increased demand for land on the agricultural campus. New buildings and landscapes dedicated to agriculture, housing, and recreation were needed.

In 1908 a new master plan for the university was prepared by Philadelphia city planners Warren Laird and Paul Cret. They translated the prominent national landscape aesthetic of the early 1900s, the City Beautiful Movement, into a plan for the university. At the agricultural campus, they oriented buildings into classical formal relationships, a stark contrast to the earlier romantic landscape of curving roads and building placement that was sensitive to natural landscape features. The Laird and Cret plan superimposed a formal, architectural spatial arrangement on what had been the relaxed quadrangle of Agricultural Hall, Hiram Smith Hall, King Hall and the observatory buildings on the ridge of Observatory Hill, impacting the development of the Linden Drive landscape character area. Laird and Cret's influence on the aesthetic development of Linden Drive included:

- The consistent building setback on the north side of Linden Drive used in the combined Home Economics and Extension building construction of 1914 (currently Nancy Nicholas Hall), aligning its façade with the that of Agricultural Hall. This was in response to the Laird and Cret proposal for the development of a "Greater Mall" along Linden Drive.
- The proposal of a "Lesser Mall" and its installation in the early 1920s as Henry Mall south of Linden Drive and Agricultural Hall.
- The strong axial relationship of the new Horticulture building (1910) on Linden Drive with the Dairy Road. The Dairy Road was later realigned and renamed Babcock Drive in 1951.

- The Classic Beaux Arts style used on Henry Mall, the Horticulture building and its formal gardens (no longer extant), the Home Economics building, and the Stock Pavilion.
- The formal allee of linden trees retained from an earlier era, replanted on the widened macadam road in the 1920s to accommodate automobiles.

In the 1920s, there was much interest in a more naturalistic landscaping and gardening style on the agricultural campus. Landscape architect Franz Aust, hired in 1915, oversaw a series of landscape beautification initiatives within the Linden Drive landscape character area, including the installation of the Marlatt Rock Garden in the late 1920s, the Aust Rock Garden east of Agricultural Hall in the early 1930s, and in 1932, the Babcock Memorial Garden, honoring dairy pioneer Dr. Stephen Babcock. In describing the campus, the *Wisconsin Country Magazine* wrote in 1937:

“Landscaped lawn with green grass and greener trees, rock gardens and flowers of every hue form the background for the 42 colorful buildings on the campus of the College of Agriculture, and make it one of the most attractive sections of the university campus.”²¹

All of this began to change when the 1941 Master Plan for Campus proposed a more functional rather than artistic approach to planning.

²¹ *Wisconsin Country Magazine*, “Introducing the Campus,” October 1937, 13.

LANDSCAPE HISTORY

Period of Significance 1866-1880:

Early development of the agricultural landscape

A student recollection of the university from 1857 to 1859, and published in 1878, richly describes the campus landscape, including its functional and aesthetic appeal, during this early phase of its development:

The management of the institution, moreover, had been entrusted to men who believed in and practiced economy, and who, as is usual with men of that class, saw every interest of their young charge from a utilitarian standpoint. As far as I now recollect, only two concessions had been made to the agreeable; the first was in selecting the site the University was to occupy; the second consisted in permitting the trees that were growing upon the grounds to remain.²²

This early recollection also made note of agriculture on the early campus grounds:

...the failure of the fruit trees that had been planted on the grounds for the double purpose of utility and agreeableness may have suggested the propriety of sparing the native trees. On the other hand, a garden was opened in one corner of the college grounds, and though apparently a separate institution, was put under the supervision of the janitor. The residue of the grounds was devoted to pasturage, and the steward's cows and the chancellor's horse were made free commoners on all the University enclosure except that part set apart for horticultural purposes. Even this sacred plat was sometimes invaded by these ruthless chattels, in which case the janitor always denounced that economy as unwise that refused to surround his department with a suitable fence.²³

There is minimal documentation of this early venture in horticulture, and the location of the garden is unknown. However, an early photograph (figure 4) includes what appear to be fruit trees west of the old gymnasium (near the current site of Ingraham Hall), on university property that pre-dates the purchase of the university farm. In the 1850s, agricultural education in Wisconsin fell under the auspices of the many farm groups that thrived throughout the state: The State Agricultural Society (1851) was followed by the Wisconsin Fruit Growers' Association in 1853 (reorganized as the State Horticultural Society in 1865), the Northern Wisconsin Agricultural and Mechanical Association in 1870, and finally, in 1872, the Wisconsin Dairymen's Association. All were influential in their fields and provided farmers and growers with the latest in farming methods and technological advancements. They also were instrumental in the promotion of

²² This is a recollection of E.H. Jones, who was a student at the University in 1857-59; See E.H. Jones, "Student Life at the University in 1857," *University Press*, May 1, 1878, 1.

²³ Ibid.

agricultural knowledge and research in Wisconsin and at the university.²⁴ The State Horticultural Society took an active interest in the orchard that was installed in the 1860s.



Figure 4: View from Bascom Hall of Observatory Hill circa 1870-1891. The building at the right edge of the photo is the old gymnasium, destroyed by fire in 1891. The road segment running left to right is present day Charter Street.

The Rise of an Agricultural College Movement

As the nineteenth century progressed, the American landscape was increasingly a place of mechanized farms and factories, where advancements in technology, transportation, and communications aided the growth of both the mercantile and financial industries. While the idea of an educational system receptive to the diverse needs of a democratic society was an underlying premise for the growth of colleges in the early nineteenth century, the existing academic structure within these schools was slow to respond to the needs of an industrializing nation.²⁵

Colleges remained devoted to traditional curricula based in the classical studies of philosophy, law, theology, and medicine. Most made only obligatory gestures to the more practical applied fields, such as agriculture. These scattering of courses in applied chemistry, civil engineering, and agriculture were too minor an accommodation for reform-minded visionaries like Jonathan Baldwin Turner, however, who believed the federal government should provide land grants for the educational needs of all citizens.

²⁴ Henry Ahlgren, *Fifty Years of Cooperative Extension, 1912-1962* (Madison: University of Wisconsin Extension Service, College of Agriculture, 1962).

²⁵ J.B. Edmond, *The Magnificent Charter: The Origin and Role of the Morrill Land-Grant Colleges and Universities* (Hicksville, New York: Exposition Press, 1978).

His "Plan for a State University for the Industrial Classes," presented in 1850, contained many of the ideas considered fundamental to the land-grant system, including experimental research in agriculture. This translated into a rising demand for a more rational approach based on scientific agriculture throughout the country, including at the University of Wisconsin.²⁶

In the 1850s and 1860s, initiatives for state-supported agricultural education gained footing in Maryland, Pennsylvania, Michigan and Iowa.²⁷ At Michigan, in 1850, a provision was included in the state constitution for the specific formation of an agricultural school and model farm. The new "Michigan State Agricultural College" was officially opened in 1855. At its dedication ceremonies, President Dr. J. R. Williams articulated the reform philosophy and ideals of the agricultural college movement:

First, we will begin with the farmer himself. It has been aptly said that the only part of European agriculture that has not been improved is the man who tills the soil. Now there is where we ought to begin. Morally, mentally, and physically he must be a man before he can be a farmer. He should be able to execute the duties of highly respected stations with self-reliance and intelligence. He should be qualified to keep his accounts, survey his land, and speak and write his native tongue with ease and vigor. He must learn to subordinate himself with his animal and vegetable life around him to those inexorable laws, moral and physical, the violation of which meets with swift retribution. A great advantage of such colleges as this is that the farmer will learn to observe, learn to think, and learn to learn.²⁸

This ambitious educational reform movement culminated in the passing of the Morrill Land Act of 1862. Vermont Congressman Justin Morrill incorporated many of the democratic aspirations of a practical educational curriculum into the Morrill Act, which provided for:

The endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, 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.²⁹

In Wisconsin, the state legislature's designation of the University of Wisconsin as the beneficiary of the land grant in 1866 brought scientific agriculture to the university and

²⁶ Ibid.

²⁷ Vernon Carstensen, "The Power of an Idea." Speech given on February 12, 1962, celebrating the 50th Anniversary of the Cooperative Extension Service in Wisconsin, Madison: Extension Service, University of Wisconsin, 1962.

²⁸ Edmond, *The Magnificent Charter*, 8.

²⁹ The Morrill Act was enacted July 2, 1862.

forever changed its course. Along with the state's greater financial support for and interest in agriculture, the university now had a new focus and new source of revenue.³⁰

A Romantic Aesthetic Influences Form

At the same time, the Romantic Movement, a new design aesthetic with a uniquely American perspective, was gaining popularity in the United States. In the 1830s and 1840s, landscape designer Andrew Jackson Downing articulated an aesthetic philosophy that emphasized the impact of natural beauty on the individual, society, and on the morality of the nation. American romanticism fused democratic ideals with the power of a beautiful landscape to improve the character of a country's citizens.

During this period, most colleges in the United States derived much of their aesthetic form from the classical symmetry of the Greek Revival. But by the mid-1850s, Downing's Romanticism was redefining the democratic ideals of landscape form. It was this aesthetic that became the inspiration for many of the agricultural college campuses constructed after the Civil War, including the University of Wisconsin.

Downing's theoretical framework influenced landscape architect Frederick Law Olmsted, who after Downing's death in 1852 converted many of Downing's concepts into landscape form. Much of Olmsted's work in park planning and suburban development influenced his work on land grant colleges.³¹ Olmsted rejected formal design styles, viewing symmetrically planned landscapes as impractical and unable to accommodate growth and modification on American campuses that need to continually change.

Thus these two parallel movements, the aesthetic democratic idealism of Downing and Olmsted and the egalitarian and practical educational vision of Turner and Morrill, combined to create a distinctly American collegiate landscape model. Olmsted's 1862 campus plans for the University of California in Berkeley and his 1866 plans for the Massachusetts Agricultural College in Amherst illustrated his emerging philosophy about the layout of agricultural colleges. Typically these new land grant schools were limited by budgetary constraints, which necessitated incremental growth. In response, Olmsted argued against the quadrangle or any geometric plan, as well as the reliance on one large main building, rejecting, in essence, the early nineteenth-century college model. An informal picturesque arrangement and smaller specialized buildings were, in Olmsted's view, more adaptable and reflected the emerging Romantic aesthetic movement.³²

Not everyone liked Olmsted's pastoral aesthetic, however, and his relationship with the Massachusetts Agricultural College grew acrimonious over his objections to a centrally-

³⁰ Charles S. Slichter, "The University of Wisconsin: Its History and its Presidents," *Wisconsin Alumnus* 41:4, July 1940, 317.

³¹ David Schuyler, *Apostle of Taste: Andrew Jackson Downing 1815-1852* (Baltimore: Johns Hopkins University Press, 1996).

³² Paul V. Turner, *Campus: An American Planning Tradition* (Cambridge, Mass: Architectural History Foundation and the MIT Press, 1987).

located main building. The president of the college, Henry F. French, who favored Olmsted's vision for the school, resigned and the trustees hired scientist Paul Chadbourne as his replacement.³³ In 1867 the school officially opened with four wooden buildings, despite Olmsted's scathing disapproval that he articulated in an article in the *Nation* in 1866.³⁴ Ironically, both Chadbourne and Olmsted would soon figure prominently in the development of agricultural lands at the University of Wisconsin.

While many of Olmsted's early campus plans of the 1850s and 1860s were not specifically implemented, his overall conceptual framework of informal designs within a pastoral context provided a tangible symbol for the new liberal and democratic beliefs of education. Many new agricultural schools responded to the expression of modest rural values exhibited in his plans, in contrast to the elitism and formality associated with traditional colleges. Olmsted's ideas became the predominate collegiate model in the late 1860s and 1870s, when practically every state, including Wisconsin, founded at least one land grant school or agricultural-mechanical college.³⁵

Agricultural Education in Wisconsin

In the 1860s, Wisconsin was struggling to find its agricultural identity. By the 1860s wheat was the predominant crop grown by Wisconsin's farmers. The combined acreage of all feed and hay crops was less than that planted to wheat. Many farm leaders in the state were concerned about this increasing dependence on a single crop regime and the ensuing soil fertility problems. Farmers searched for enterprises better fitted to sound agricultural development. This provoked debate at farmers' clubs and soon dairying began to replace the single crop wheat culture. Farmers were encouraged to diversify their farms and farmsteads. Many began raising sheep, hogs, and cattle. With this new emphasis on livestock, interest in forage crops ensued. Cash crops such as tobacco, flax, and hops also generated attention.³⁶ Historian Percy Bidwell has written of this period in agricultural history as follows:

The uncertainty of choice was stimulating to thought and tended to make the agriculture of that period rational rather than traditional. It stimulated the farm press and paved the way for farm education.³⁷

A Morrill Land Grant for Wisconsin

In 1866, after much debate, the University of Wisconsin at Madison was designated as the state recipient of a Morrill Land Grant which provided the financial means to

³³ *Ibid.*

³⁴ Olmsted wrote two articles in the *Nation*: "Our Agricultural Colleges" (August 16, 1866); and the subsequent, "How Not to Establish an Agricultural College" (October 25, 1866).

³⁵ Turner, *Campus: An American Planning Tradition*, 1987.

³⁶ James G. Moore, "Agriculture in the University of Wisconsin." Madison, Wisconsin: Typewritten manuscript, available through the University of Wisconsin Library System, 1955.

³⁷ Percy Wells Bidwell, *History of Agriculture in the Northern United States, 1620-1860* (Washington D.C.: The Carnegie Institution, 1952).

purchase land adjacent to the university for an experimental farm. The regents described boundaries of the 198-acre property in 1866:

Through the liberality of the citizens of Dane County, an experimental farm has been secured at an expense of \$40,000. The land purchased adjoined the University grounds, lying west of Mary Street [*currently Charter St.*] and north of Sauk Road [*currently University Avenue*]. A piece of land embracing that part of section 14, in township seven, north of range nine east, which lies west of the university grounds, and the part of section 23 in the same township and range which lies between the Sauk Road on the south and the tract in section 14, adjoining on the north, also five town lots adjoining the university grounds on the south-west corner, comprising in all about 195 acres and including Professor Read's house [*currently Observatory Hill Office Building*] and Mrs. Hobbins' stone and brick dwellings [*formerly located at the corner of current University Ave. and Charter Street*],³⁸ at an aggregate cost of \$27,054. Application has been made to the proper authorities for the vacation of the streets intersecting the town lots purchased, which will undoubtedly be granted. The University grounds proper, heretofore belonging to the institution, contain 40 and 63-100 acres; they are contiguous to the above described piece and with it form one tract with an area of over 235 acres.³⁹

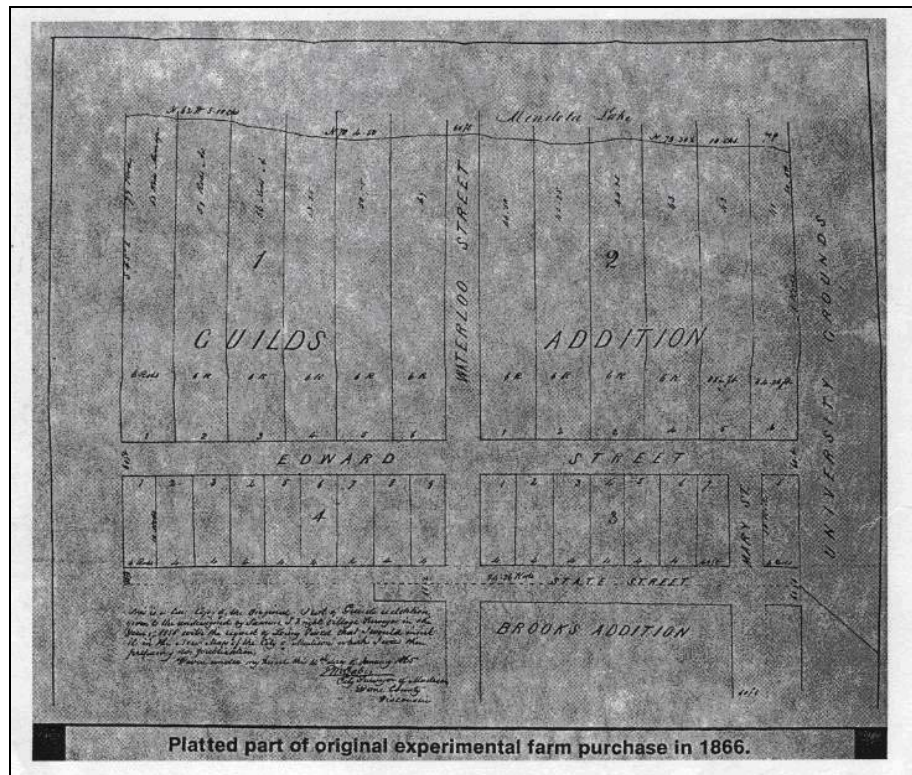


Figure 5: Platted section of the original experimental farm purchase, 1866.

³⁸ Professor Read's house became the President's residence; later, with the construction of the Observatory, the house became the Observatory director's home. The Hobbins' residence was used as a rental property by the university until it was demolished in 1895; at that time it was converted to a tennis court. See Thwaites, *University of Wisconsin*, 85.

³⁹ Board of Regents Minutes, University of Wisconsin, 30 September 1866.

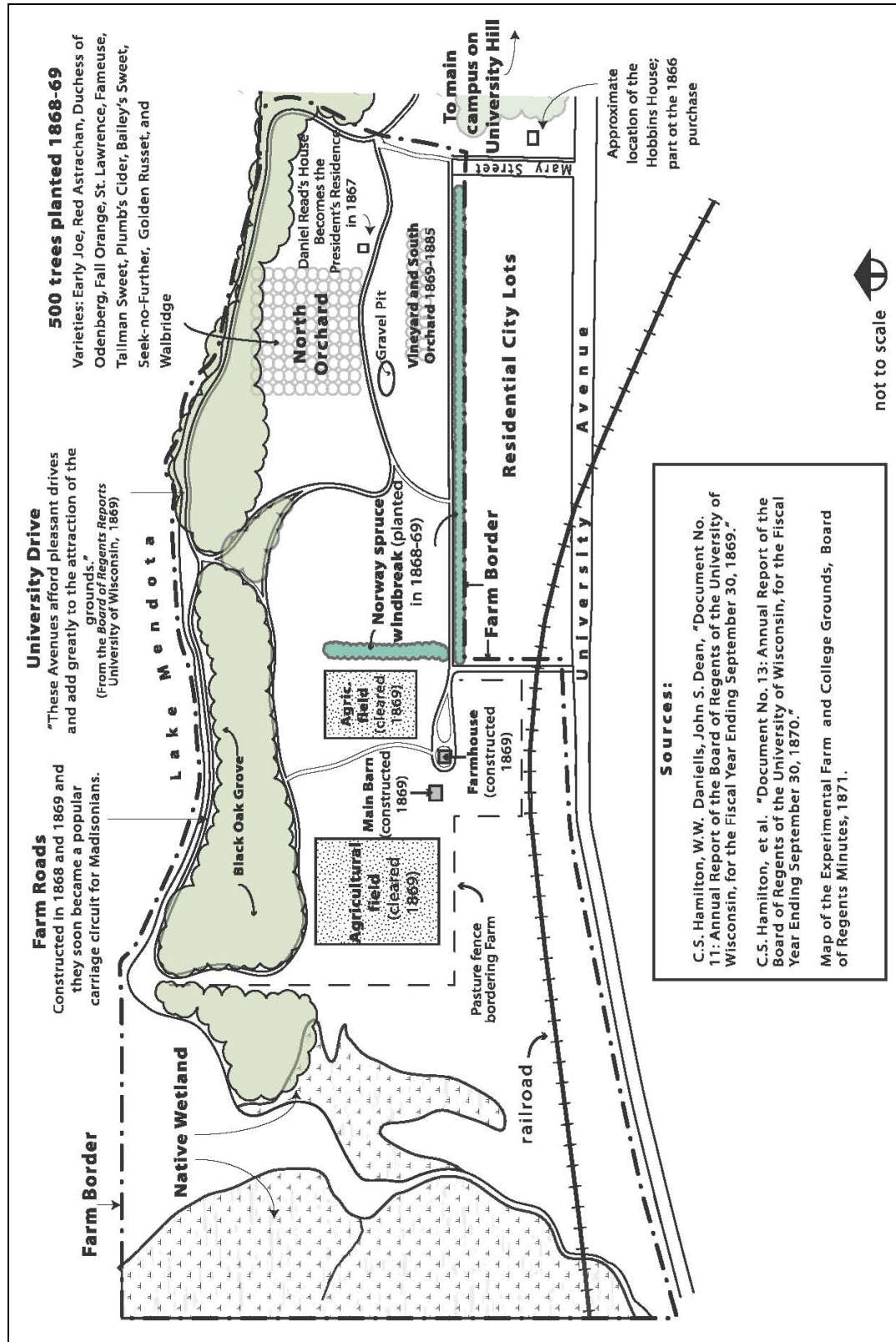


Figure 6: Period plan, President Chadbourne's tenure, 1867-1870.

At the time, the college was at a critical juncture.⁴⁰ Paul Chadbourne, president of the Massachusetts Agricultural College, first accepted and then rejected an offer to serve as president of the University of Wisconsin in 1866. Chadbourne's scientific background and astute knowledge of agricultural colleges held much appeal to the University of Wisconsin.⁴¹ Eventually, Chadbourne and the university agreed to terms, and he came to Madison one year later.

After Chadbourne's arrival, the university farm was established on the western edge of the university grounds. Although Chadbourne's tenure at Wisconsin was brief, 1867 to 1870, his influence was profound. One of his first speeches, given at the State Agricultural Fair in September 1867, generated much enthusiasm for the new agricultural venture at the university.⁴² He was soon dedicating buildings, delivering sermons, giving lectures on his travels, and integrating himself into state and local circles.⁴³ Under Chadbourne's leadership, the new farm took shape. While there is no account of who specifically designed the nearly 200 acres, Chadbourne likely influenced its early form, as this account from the *Wisconsin State Journal* in 1868 illustrates:

Visiting the University grounds yesterday for the first time this spring, we noticed a great improvement in their appearance, under the direction of President Chadbourne. A handsome serpentine drive has been laid out from the front gate to the buildings, a number of evergreens set out, a multitude of unsightly boulders removed, some trees, where too thick, cut out, etc.⁴⁴

The Farm

Although Chadbourne and Olmsted were on opposing sides of the Massachusetts design battle,⁴⁵ Olmsted's aesthetic philosophy can be readily seen in the early plans for the university farm, particularly in its pastoral character and modest buildings. Olmsted's main criticism of the Massachusetts plan, the placement of a large central edifice, did not occur at Wisconsin because the farm supplemented the existing college infrastructure. Only a modest barn (at the site of the existing horse barn) and a vernacular residence were constructed at the terminus of State Street (later re-named Linden Drive.)

⁴⁰ Reuben Thwaites, *University of Wisconsin* (Madison: J.N. Purcell, 189), 87.

⁴¹ *Ibid.*

⁴² "Chadbourne Addresses State Agricultural Fair," *Wisconsin State Journal*, September 28, 1867.

⁴³ In a series of articles from 1866-1870, *Wisconsin State Journal* documented the arrival and influence of Paul Chadbourne on the State: see Appendix 2.

⁴⁴ "Improving the University Grounds," *Wisconsin State Journal*, May 20, 1868, 3.

⁴⁵ Paul Chadbourne "Successful Agricultural Schools," *Wisconsin State Journal*, August 17, 1868, 2. He wrote: "The institution has been denounced and opposed by those who could not force upon the Trustees their own peculiar plans. Failure has been predicted, and it may come, but the success of the College is today beyond what its best friends ever predicted. As it was my fortune to assist in organizing that College, and as I have just returned from Amherst, after having made a careful survey of the whole machinery in operation there, I trust I shall be pardoned for laying before your readers what seem to me to be the elements of the success referred to in the article which you published that we may see how far we have the same elements now at our command or how we can secure them."

Linden Drive

The main transportation artery for the new farm was the small section of State Street (currently Linden Drive) that extended from the western side of College Hill to the new barn.⁴⁶ Olmsted believed that college buildings should be placed near the main road of an agricultural school to provide easy access to both farm and social activities. He envisioned a main road with graceful curves and planted with shade trees that would create a “rural neighborhood.”⁴⁷ For the developing agricultural campus, this main road became Linden Drive, the southern border of the university farm. Linden Drive continued westward from Mary Street (currently Charter St.), turning into Farm Drive at the intersection of what is Linden Drive and Babcock Drive today. As the university farm developed around this modest nucleus, many of Olmsted’s ideas were adopted.

Early records indicate that Norway spruce lined the southern border of the farm and main road in 1868. After their planting, however, there is no record of their existence. In 1873 the *University Press* noted that shade trees were planted along the southern border of the university farm, which is quite possibly the beginning of lindens on the drive.⁴⁸ As the campus grew, Linden Drive remained the main corridor for the buildings and landscapes situated on the agricultural campus, the remnants of a rural neighborhood that can still be seen today.

Observatory Hill

Atop the ridge to the west of Main Hall (currently Bascom Hall) with its majestic views of the lake, was the Italianate home of Professor Daniel Read (currently the Observatory Hill Office Building). This residence was included in the original farm purchase of 1866 and was set aside for President Chadbourne’s use.

Chadbourne envisioned using the hill as an ideal faculty residential area, and he encouraged this potential use.⁴⁹ Faculty members were resistant to the isolated location of the hill, however, and they rejected Chadbourne’s plan. Nevertheless, the residence was home to the university president for the next ten years. The construction of the observatory in 1875 gave the hill a new function (and a new name, Observatory Hill) and the president’s house became the Observatory director’s residence.

⁴⁶ Landowners in the mid-1800s speculated on the development of State Street as it went west from the state capitol past the proposed university campus, and through to University Bay. While this never happened, the name of State Street was retained west of the main campus on numerous plat maps through the 1880s.

⁴⁷ Laura Wood Roper, *FLO, A Biography of Frederick Law Olmsted* (Baltimore, Maryland: Johns Hopkins University Press, 1973), 312.

⁴⁸ “The farm hands are busy planting shade trees in the street bordering the University Park.” *University Press*, May 15, 1873, 275.

⁴⁹ Mollenhoff, *Madison: A History of the Formative Years* (Dubuque, Iowa: Kendall/Hunt Publishing Company, 1982).



Figure 7: View of the former Daniel Read residence, 1899. The structure was latter known as the President's House, and at the time of this photo it was known as the Observatory Director's Residence. In the foreground is the President's oak, the oldest tree on campus to this day.

The hill also had agricultural associations in its past. Reflecting the early influence of farm societies, land had been set aside on both the northern and southern slopes for a joint project with the Wisconsin State Horticultural Society. Experiments included apple orchards on both slopes to test the hardiness of apple varieties and a vineyard on the southern slope.⁵⁰ In 1868, the Wisconsin State Horticultural Society reported:

They are already growing fruit trees and grapes of different kinds, various varieties of small fruits, and shrubbery and a barberry hedge. A part of the grounds has been set out with evergreen and deciduous trees of choice varieties. This enterprise seems flourishing and bids fair to meet with the success it so justly deserves.⁵¹

Vegetation

On February 24, 1868, Chadbourne hired Professor William W. Daniells as the first professor of agriculture and chemistry. Under Daniells' direction, the early farm used vegetation for different purposes. The first was for science, as research orchards,

⁵⁰ William Daniells' Farm Report, addendum to the Board of Regents Report, University of Wisconsin, 1869.

⁵¹ James Moore, "Agriculture in the University of Wisconsin," 17.

vineyards, and research fields were planted. Vegetation was also used to delineate areas and define the boundaries of the farm. Numerous conifers were planted on Observatory Hill predominated by arborvitae hedges.⁵² Many accounts describe Chadbourne's involvement and supervision in the planting of ornamental trees throughout the farm.⁵³

The period between 1868 and 1870 was a time of great improvements in the agricultural campus infrastructure. William Daniells wrote of this time of great change: "There were neither teams, buildings or tools of any kind on the farm. None of the land had ever been in cultivation, and although a portion of the land had been cleared much work was necessary to fit it for the plow."⁵⁴ Soon after, landscape changes were readily seen throughout the farm:

"The land purchased for the experimental farm has been fenced and men have been put to work upon it to prepare it for cultivation in the spring."⁵⁵ The following were to be completed in 1869:

1. Four acres of corn cultivation
2. Two acres of potatoes
3. Plant for the vineyard plowed in June, part of which was sown to corn and rutabagas for soiling purposes.
4. The nearly 10 acres along the northern slope of the hill beside the lake was plowed to make way for an apple orchard.
5. 200 evergreens, 3- to- 6 feet high planted on the grounds.
6. An arborvitae hedge planted between the stiles in front of the university.
7. A row of Norway Spruce, intended for future protection against the south and southwest winds, planted on the south side of the farm, running west 100 rods from the university grounds.
8. 1,400 evergreen seedlings in cultivation for future use.⁵⁶

The Pleasure Drive

Let visitors and pleasure seekers wishing to enjoy a pleasant drive remember the road laid out and completed last year running through the University grounds and along the lake shore.⁵⁷

A key feature of the farm was its road layout, a series of curvilinear drives that provided local residents access to the scenic lakeshore. The roads, which revealed Olmstedian influences in form and purpose, were constructed in 1870. Farm superintendent Daniells wrote of the new roads:

⁵² Pyre, *Wisconsin* (New York: Oxford University Press, 1920).

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Board of Regents Report, University of Wisconsin, University Farm Report by William Daniells, 1869.

⁵⁶ Ibid.

⁵⁷ *University Press*, April 15, 1871, 61.

Under the direction of Thomas R. Van Horn, superintendent of the grounds, one and three fourths miles of avenues have been constructed, three fourths of a mile extending along the shore of Lake Mendota. These avenues afford pleasant drives, and add greatly to the attraction of the grounds by giving an opportunity to visit in carriages localities from which may be seen some of the most beautiful landscape views in this vicinity.⁵⁸

The pleasure drives were soon the most popular features of the farm, and were a precursor to the Madison Park and Pleasure Drive movement of the 1890s. By the 1870s the predominant land use on the farm was that of a pleasure park for university faculty, visitors, and students. Numerous accounts from the *University Press*, an early student newspaper, document the popularity of the farm drives during the 1870s, which served as a carriage circuit in the summertime.⁵⁹ Many described the scenic beauty of the landscape: “Continuing beyond the Main Building the ground makes a slight depression in which the gymnasium [sits], then rises again, forming an eminence, on which is situated the Washburn Observatory. This spot commands not only a good view of the heavens; but it overlooks a beautiful landscape as well.”⁶⁰

Chadbourn Resigns

Chadbourn’s tenure at the university lasted only three years. Possibly his belief in the difficulty of establishing agricultural schools in the west, the lack of financial commitment by the state of Wisconsin, and his ties to the east drew him back to Amherst, after his attempt to introduce agricultural education to Wisconsin. Chadbourn’s own writings give some insight into his belief in the inherent advantages of eastern agricultural schools:

Agricultural education will be sought for not most in rich agricultural States, but where the land is poor and good markets are at hand, so that it is not only necessary to spend a great amount of labor on an acre of land, but it will pay to do so.⁶¹

After his return to Massachusetts he was appointed president of Williams College, where he remained from 1872 through 1881. Without his dynamic leadership, the university

⁵⁸ Board of Regents Report, University of Wisconsin, Appendix 5, University Farm Report by William Daniells, 1870.

⁵⁹ “Returning to the University grounds, no visitor to Madison must neglect to drive over the hill back of the college buildings, and then upon the shores of Lake Mendota. On the way, just before turning down to the lake may be seen by the side of the drive, two of the most interesting Indian mounds to be found any where in this State. One is in shape like a bird with wings extended, and the other represents the form of a lizard, the form of the head, the body, the legs and tail being easily recognized. The drive along the lake, within the University grounds, is simply charming. The road winds in an out following the curves of the shore, and is finely shaded by grand old oaks that were full grown long before Gov. Doty selected the site of Madison. A mile from shore, a long point makes out into the lake from the western bank and as the sun goes down from behind it there is just that combination of land and water, of field and wood, which in this clear atmosphere produces the most exquisite sunsets.” See *University Press*, October 17, 1874, 158.

⁶⁰ *University Press*, April 28, 1883, 2.

⁶¹ Paul Chadbourn “Successful Agricultural Schools,” *Wisconsin State Journal*, August 17, 1868, 2.

farm and the early promise of agricultural research at the University of Wisconsin stagnated. The new president, theologian John Twombly, who arrived in 1871, had little interest in developing the farm.⁶² The agricultural curriculum was non-existent and the experimental plots on the farm contributed minimally to the advancement of agriculture in the state. Over the next ten years, the university farm struggled for an identity, receiving little financial support and little direction from the university leadership. In 1871, the Secretary of the Wisconsin State Horticultural Society wrote: “The Horticulture garden, what of that? Lo! The poor Indian, what of him? No one cared for the last and he died, and so has the garden to all intents and purposes as an experimental garden.”⁶³

While the Wisconsin State Horticultural Society lamented the lack of research progress at the farm, the orchards and vineyard, in close proximity to university dormitories, were subject to numerous campus pranks and trysts, even becoming a food source for hungry students.⁶⁴ The fall harvest of grapes and apples were too tempting for students to resist, which created a somewhat adversarial relationship between the farm and school. The *University Press* kept a running account of the fortunes of the university fruit crops well into the 1880s, including this one from 1876:

The grapes are gone. The six-shooter that has been presiding, both night and day over the vineyard has dropped into its sheath and you are now permitted to roam through any part of the farm without endangering your life.⁶⁵

A Landscape Aesthetic Revival

The hiring of John Bascom as the new president of the university in 1874 brought a renewed interest in the landscape aesthetics of the university. Trees were planted throughout the campus grounds, including on the farm.⁶⁶ Avenues of densely planted trees along narrow carriage lanes provided dramatic, linear definition between fields and roads.⁶⁷ Each avenue featured distinct tree plantings: American elm, box elder, green ash, and American linden (figure 8).⁶⁸

A Change in Direction: Dairy Comes to the Farm

⁶² Wilbur H. Glover, *Farm and College* (Madison: University of Wisconsin Press, 1952).

⁶³ Moore, “Agriculture in the University of Wisconsin,” 17.

⁶⁴ “A remarkable appreciation for the beauties of nature seems to have been developed suddenly in some of the girls, noticeably those of the lower classes. Every evening just before six, scores of them may be seen starting out for their daily promenade, and instead of aiming directly for the Rue d’etat, as of yore, they make their way briskly over the hill. When they return, they are enthusiastic over the beautiful views to be had from some portion of the drive; but one draws his own inferences, when grapes “direct from home” are given to room-mates and friends, with unusual generosity.” *University Press*, October 16, 1878, 7.

⁶⁵ *University Press*, October 3, 1874, 149.

⁶⁶ University of Wisconsin Archives, series 1/1/3, Box 8, Board of Regents Secretary Files, June 23, 1875.

⁶⁷ “The farm hands are busy planting shade trees in the street bordering the University Park,” *University Press*, May 15, 1873, 275.

⁶⁸ *University Press*, September 17, 1874, 141.



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pleasure roads that bisected the farm. Throughout the 1880s, Henry's writings reflect his focused efforts to develop a research farm, not a landscape of "horticultural loveliness."⁷¹

In his university farm addendum and later, through his annual Wisconsin Experiment Station Reports, Henry articulated a vision for the farm as an important research arm of the state's agricultural industry. While he conceded the land-use features of the pleasure drives, Henry lobbied for a more efficient farm layout. His detailed forty-seven page report to the regents in 1881 impressed President Bascom, who then wrote:

The Agricultural Department is for the first time beginning to strike root a little and to promise some growth. In order that this growth may meet with favorable conditions and be continuous we shall need immediately to increase the instructional force. Professor Henry is overburdened with his present work, while additional work will be required in Chemistry and Botany.⁷²

Henry was politically savvy and financially astute. Under his direction the farm gained an important revenue source in 1883 when it was designated as the Wisconsin Agricultural Experiment Station. As an experiment station, the farm received money to fund research directly related to specific agricultural practices on Wisconsin farms, and to provide published annual reports of the station's work. With this infusion of capital and the publication potential, Henry focused on the needs of state farmers, fulfilling the vision of agricultural research that Chadbourne had articulated to the state's agricultural leaders twenty years before. He organized the station into three departments with separate overseers: Agriculture, overseen by Henry himself; Botany and Horticulture under William Trelease; and Agriculture Chemistry under H.P. Armsby.

One of Henry's primary goals was to disseminate practical information to farmers as quickly as possible.⁷³ This emphasis on applied research, and Henry's strategic use of limited resources to focus on only a few areas of study, was effective and successful. Many of the significant discoveries made at the experimental farm were based on the problems facing Wisconsin farmers in the late-nineteenth century, advancing the state's agriculture industry through the university's work.

paths they slip into their respective lodgings with no feelings of compunction, or any idea that they have committed any thing worse than a huge joke, or some other wonderful act, so wonderful in fact that it bears no title." *University Press*, September 27, 1884, 4.

⁷¹ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*. Madison: University of Wisconsin Agricultural Experiment Station, 1886.

⁷² President Bascom's Annual Report, 1881. See James G. Moore, "Agriculture in the University of Wisconsin." Madison, Wisconsin: Typewritten manuscript, available through the University of Wisconsin Library System, 1955, 19.

⁷³ At the Experiment Station, Henry articulated his philosophy on agricultural research: "It is apparent that any small group of investigators can cover but a small part of the great agriculture field. Recognizing this we have not attempted to carry many lines, believing that greater good will come from more fully following up what is undertaken." W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, University of Wisconsin Agricultural Experiment Station, 1890, 1.

Henry's writings in the 1880s were consumed with the battle over what the farm should be. The ingrained perception of the function of the western campus as an aesthetically pleasurable experience was difficult for Henry to overcome:

There is yet need of giving expression to our ideas of what the farm of the Station of the 'University Farm,' as it is usually styled, is for. It would seem to the state our negative ideas first, that it is not a park nor driving place for local purposes. The great natural beauty of the university grounds, situated as they are on the shore of one of Wisconsin's lovely lakes, constantly fosters the idea that in every plan we should aim to please the sense of the beautiful. There necessarily cannot be much that is aesthetic in plain substantial farm buildings, ordinary live stock, stiff rows of corn and potatoes and rectangular plats of grain, but inasmuch as they are essential to the Station's work they must appear. The drives as they are now laid out, together with the grove, should remain. In no way should the public be shut out from the privileges now enjoyed, but in all matters of judgment or criticism upon what may be seen as one passes about, the first thought should be, "Is this what is best for the Station." ...If the Station's reports carry to the farmers of the state desirable information of experiments conducted, and if these experiments tend to foster a better system of agriculture, the farm is surely a thousand times more valuable, hence better than if a model of agricultural and horticultural loveliness.⁷⁴

Henry's continuous campaign to redefine the farm as a research facility led to his efforts to remove a large black oak grove along the lakeshore. Because of new buildings, roads, and the unusable wetland to the west, efficient field research space on the farm was limited. Henry entreated the university for more arable farmland, and he saw the potential of the black oak grove for agricultural cropland and pasture. By the late 1880s he had succeeded in his drive to remove the black oaks, a blow to those who appreciated and saw the park-like character of the farm as an important asset. This appreciation is reflected in the following description:

The western part of the University grounds originally consisted of woodland and meadow, but in the early 'Eighties came to be devoted to the use of the department of agriculture and its experiment station. Its park like appearance was lost and a fine grove along the lakeshore was sacrificed. The alteration may have been justified on utilitarian grounds, but it was an offence against aesthetic standards and elicited adverse comment...⁷⁵

The Farm

As research on the farm shifted to focus on dairy and animal husbandry, the area surrounding the main barn and farmhouse became the center of farm activity. A dairy building and icehouse were built in 1881, for use, primarily, for butter making. Numerous

⁷⁴ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, University of Wisconsin Agricultural Experiment Station, 1886, 4-5.

⁷⁵ Frederick Pike, *A Student at Wisconsin Fifty Years Ago* (Madison: Democrat Printing Co., 1935), 8.

outbuildings followed, including a small sugar plant and stock barn.⁷⁶ In 1884, the main barn was extended thirty-four feet to provide for Henry's research in animal feeds. His studies on feeding and silage were considered invaluable to farmers and culminated in his 1898 book, *Feeds and Feeding*. A windmill was also added. In 1889, the sheep barn was constructed west of the Main Barn.⁷⁷ As the cluster of farm buildings grew and research flourished, Henry's other mission, agricultural education, was almost non-existent.

A Farm Becomes a College

With agricultural education failing to take root at the university, Hiram Smith led a grassroots movement to separate the state's land grant college status from the university. Smith believed that the removal of the agricultural school to another site would create an environment more conducive to academic enrollments. Land grant schools like Michigan State and Iowa State, dedicated solely to agriculture, were oriented both to research and education, a model Smith felt best to follow. In an effort to forestall the move, the university outlined a strategy for addressing the development of agricultural education. The 1884 Vilas/Hitt report advocated for the improvement of the agricultural college experience at Madison through measures such as the formation of Farmers Institutes and the Short Course.

Farmers Institutes, established in 1885, brought university agricultural research findings and recommendations directly to the farmer through a series of one-to-three day meetings held throughout the state. Precursors to the extension movement, the Farmers Institutes were one of the earliest forms of community outreach in the state. The Short Course program, begun in 1886, did the reverse--brought the farmer to the university. As an educational alternative to a general university degree, the Short Course was tailored to the farmer's schedule with practical agricultural courses offered in the winter months on campus.

With the introduction of the dairy short course in 1889, enrollment in agricultural education increased steadily. The immediate success of both the Farmers Institutes and the Short Course, together with funding for the experiment station, finally fulfilled Chadbourne's prediction for agricultural school success in Wisconsin.⁷⁸ The new programs provided the university with the ability to offer direct tangible economic benefits to the state's farmers through access to new technologies and methods for

⁷⁶ The main barn was extended 36 feet to facilitate research in two ways: fodder research and facilitating the care of the stock. At this time the barn was also equipped with a twenty-foot windmill. "In accordance with this belief it has been and is our policy to manage the Station farm strictly as a farm for experimental purposes, and for these it is well adapted. The area of tilled land is being gradually reduced by seeding to the amount which is required for field experiments with varieties, fertilizers, tile draining, etc. The herd is being improved by sales and purchases, so that it may furnish at all times suitable animals for experiments upon milk and butter production." See W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, University of Wisconsin Agricultural Experiment Station, 1884, 7-8.

⁷⁷ W.A. Henry, *Wisconsin Agricultural Experiment Station Reports*, Madison: University of Wisconsin Agricultural Experiment Station. Reports published from 1883 through 1890, provide a record of changes on the research farm.

⁷⁸ Wilbur H. Glover, *Farm and College* (Madison: The University of Wisconsin Press, 1952).

agricultural practices in the field. The success of these initiatives legitimated and validated the experimental station farm throughout the state and cemented the location of agricultural education in Madison.⁷⁹

In 1887 the U.S. Congress passed the Hatch Act, which provided more federal land grant funding for experiment stations throughout the country. This infusion of capital marked the beginning of another major growth phase on the agricultural campus. In 1888, South Hall, on the main campus, was designated as Agricultural Hall, and the College of Agriculture was officially recognized in 1889. Both actions demonstrated the university's commitment to agriculture. The new college was organized into four departments under the direction of Dean William Henry: Agriculture, Horticulture and Economic Entomology, Agricultural Chemistry, and Agricultural Physics (Soils). It was dairy research at the university farm, however, that raised the research enterprise of the college to immediate state and national significance.⁸⁰

The Dairy School

Wisconsin Governor William Dempster Hoard, along with Hiram Smith, both leaders in the state's dairy industry, put their political and financial support behind the development of the university's dairy program. Most research on the farm related in some way to the dairy industry, from the selection of superior cattle to the development of forage crops. Henry's hiring of Dr. Stephen Babcock in 1887 brought a respected expert in the field of dairy research to the university, and furthered the university's close association with the state dairy industry. This relationship led to numerous advances in dairy science, including the world renowned Babcock Butterfat Milk Test.⁸¹

Babcock's invention provided a practical means for testing the fat content in milk and influenced the dairy industry world wide. Soon, every dairy state in the nation used Babcock's test. At the university, Babcock's work ushered in a new era of scientific dairy research. Drawing on \$1000 budget allocation from the regents, a new "dairy house" was constructed with lumber scrounged from the farm. A carpenter was hired and with assistance from farm laborers the structure was soon completed. In this modest wood structure in January 1890, the nation's first dairy short course opened with two pupils in attendance.⁸² The success of the first dairy short course program and the economic potential of dairying in the state were evident only one year later when enrollment increased to seventy students with a waiting list of many more. In response to this initial success, Henry lobbied for a new state-of-the-art dairy school building. His request was promptly approved and a new masonry structure for the dairy school was constructed in 1893.⁸³

⁷⁹ Ibid.

⁸⁰ John W. Jenkins, *A Centennial History of the College of Agricultural and Life Sciences at the University of Wisconsin-Madison* (Madison: College of Agricultural and Life Sciences University of Wisconsin, 1991)

⁸¹ Ibid.

⁸² See Jim Feldman, *The Buildings of the University of Wisconsin* (Madison: the University Archives, 1997, p 64.)

⁸³ W.A. Henry reported the following: "Members of the last legislature were frequent visitors at our dairy house; all were struck with the lack of room for so large an attendance and we were promised more

The placement and design of the second dairy building, and the cluster of buildings that soon followed, reflected the new attention that landscape aesthetics was receiving at the university. While the regents approved a site for the new dairy school near existing farm buildings, the farm committee, in contrast, chose an elevated site near the observatory. The committee deemed the farm area too flat. The western portion of Observatory Hill, on the other hand, could provide the new building with an elevated status for greater visual imagery that would reflect the prominence of the new school.⁸⁴

With no precedent to follow, Dean Henry and Dr. Babcock traveled to dairy plants throughout Iowa, Wisconsin, and Illinois, where they studied existing creameries.⁸⁵ Their ideas were then incorporated into the new dairy building, designed by Milwaukee architects George Bowman Ferry and Alfred Clas. The site, on the ridge of Observatory Hill west of the existing Observatory buildings, began a new phase of development on the experimental farm.

After the construction of the dairy building (later re-named to honor Hiram Smith who had died in 1890) student enrollment continued to increase in the innovative dairy short course. This model of dairy education was soon copied throughout the country. The knowledge and skills attained in milk processing, cheese curing, and dairy production easily translated into economic gain for students who returned to communities throughout the state after completing the course. The direct connection to and application of groundbreaking research between the university and the state's dairy industry aided the growth of dairy in Wisconsin and agricultural education at the university.⁸⁶

Increased resources allowed the college and its farm to diversify, reflected in the development of new buildings in the late 1890s and early 1900s. Babcock's butterfat tester, along with future agriculture dean Harry Russell's improvements in cheese production, energized the college. The same was true of F. H. King's innovative advancements in agricultural mechanics and barn architecture, and agronomist Ransom Moore's short course program innovations, breeding experiments, agronomy research, and community outreach. Henry's farm was slowly moving beyond dairying to a diversified program of scientific agricultural research.

The Hill

commodious quarters. A generous appropriation was made to the university for needed buildings, the dairy school being specified in the list. The regents of the university, with characteristic good will toward this department arranged that the dairy school should be the first of the new buildings erected, and directed that if possible the first floor should be ready for students by the beginning of the year 1892." See W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, University of Wisconsin Agricultural Experiment Station, 1891.

⁸⁴ Agriculture Committee Report, Board of Regents Meetings/Secretary Files, series 1/1/3, Box 10, June 16, 1891.

⁸⁵ Ibid.

⁸⁶ Jenkins, *A Centennial History: a History of the College of Agricultural and Life Sciences at the University of Wisconsin*.

Diversification of the farm included the reintroduction of horticulture as a line of research. In the early 1890s, Henry made a second attempt to develop an orchard on Observatory Hill. Under the direction of newly hired horticulture professor Emmett Goff, the orchard and horticultural fields were planted farther west than their original 1868 location:

Our horticultural department has at last found a permanent home on the portion of the experiment farm covered by the hill side adjacent to the Washburn Observatory and including the level lands lying to the north skirting the shores of the Fourth Lake. Nature has done much for us and a more desirable location could scarcely be conceived. Professor Goff has planted an experimental orchard on the hill side with its northern slope and has gathered in orchard form promising varieties of hardy fruits from many sources...Our horticulture work has not only been hindered heretofore from lack of suitable grounds, but is still suffering much for want of a horticultural building with forcing houses. Let us hope that those in authority seeing the need will not allow this department to go long unprovided. A most sightly place for a horticultural building is the grounds adjacent to Fourth Lake or back on the hillside not far from the dairy school.⁸⁷

The College Expands

As the number of staff, students, and visitors increased, the demand for space both within the buildings and throughout the grounds also grew. Henry's political acumen provided much of the needed funding to expand the infrastructure of the college.⁸⁸ The completion of the horticulture building in 1893 was followed quickly by an addition to the east for agricultural physics in 1896 (the building was re-named King Hall in 1910). The building overlooked the lake, and was adjacent to the new orchard. Horticultural research, first under Goff (1889-1902), and then under Emil Sandsten (1902-1909), encompassed almost the entire range of horticultural crops. Goff worked closely with the Wisconsin State Horticultural Society in selecting fruit for the orchard, evaluating hardiness, and developing pruning and spraying schedules. As with the dairy school, the emphasis on applied horticultural education was soon rewarded with dramatic increases in enrollment from fewer than a dozen students in 1889 to more than 300 by 1902.⁸⁹

Sharing the horticulture and agricultural physics building was the first soil physics department (shortened to "soils" in 1905) in the United States. Under the guidance of visionary soil physicist F.H. King, the new department explored everything from soil irrigation and quantitative soil physiology, to King's interest in agricultural engineering. It was here where King developed the round silo, improved methods in barn construction

⁸⁷ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, 1892, 4.

⁸⁸ "In the early days of the University the agricultural interests were the principal interests of the state. As a result, for many years Dean Henry of the Agricultural College was credited with steering the budget of the entire University through the legislature." See Ira Baldwin in the oral history, *My Half Century at the University of Wisconsin*. Madison: privately published by Ira Baldwin, 1995, 226.

⁸⁹ "1889-1989—A Century of Horticulture," (Madison: Department of Horticulture, University of Wisconsin-Madison, 1989).

and ventilation, and popularized the round barn.⁹⁰ A windmill, originally located atop the west tower of the building, provided some of the nation's earliest research on wind power. King's work on quantitative methods of soil analysis was internationally significant. During a visit to the University of Wisconsin in 1935, Sir John Russell, director of the Rothamsted Experimental Station in Great Britain, told E.B. Fred, then dean of the graduate school and later president of the university, that his reason for the visit was to see where "America's greatest and most famous soil physicist carried out much of his work."⁹¹ King is recognized as one of the pioneers in soil physics history.⁹² His soil research and that of his successor, A.R. Whitson, who arrived in 1901, led to the creation of a state soil survey in 1909.⁹³

The horticulture and agricultural physics building (King Hall) was visually oriented northward, to the lake and the orchards, while the dairy building (Hiram Smith Hall) prominently faced west, overlooking the experimental farm. In 1898 an agricultural heating station (currently the Agricultural Bulletin building) was constructed north of the dairy building and west of the horticulture and agricultural physics building. This significant cluster of three structures remains today as a reminder of the important contributions to agricultural science and education that occurred at the university over 100 years ago. (Note: these three structures are later referred to in this document as the "Hiram Smith-King Hall cluster.")

A House for Henry

Henry's success with the development of the research farm and agricultural college was soon attracting national attention. Job offers from Stanford, Cornell, and elsewhere prompted the university to offer Henry a series of incentives to stay, including a new house on the experimental farm. Henry proposed the following to President Adams:

...from the surplus now standing on the books to the credit of the College of Agriculture, there be constructed next spring a house for the director of the Experiment Station costing no less than \$6500, the same to be located on an avenue which shall be laid out to extend from in front of the dairy building to Fourth [Mendota] Lake running in a northwesterly direction. Adjoining the house shall be a lot one acre in area for use as a garden etc...⁹⁴

In Henry's annual report for 1896 he wrote:

⁹⁰ E.L. Miller, "Horticulture and Agricultural Physics and Soil Science National Register Nomination." On file with the Historic Preservation Division, Wisconsin Historical Society, Madison, 1984. The building was listed in the National Register of Historic Places on 29 January 1985.

⁹¹ C.B. Tanner and R.W. Simonson, "Franklin F.H. King—Pioneer Scientist," *Soil Science Society of America Journal* 57:1 (January-February, 1993).

⁹² W.H. Gardener, "Historical Highlights in American Soil Physics, 1776-1976," *Soil Science Society of America Journal* 41 (1977), 221-229.

⁹³ M.T. Beatty, "Soil Science at the University of Wisconsin: A History of the Department, 1889-1989," (Madison: Department of Soils, University of Wisconsin Madison, 1991), 8.

⁹⁴ Kathleen Cruikshank, "10 Babcock Drive," *Wisconsin Academy Review*, June 1977, 2-10.

The Director's house is under construction, the same being located on the site lying to the northwest of the Dairy building, not far distant from Fourth Lake. A driveway is planned to extend from Linden Drive along in front of the Dairy building, past the new residence and onto the Shore Drive, thus giving the public another means of reaching the lakefront.⁹⁵

Called "Lake Dormer," the dean's elaborate Queen Anne residence was surrounded by the experimental farm. The home was the social center of the agricultural campus, visited by dignitaries and the site of numerous campus functions. The acre of land surrounding the home reflected an early twentieth-century residential landscape, with a vegetable garden, ornamental flowers, and a chicken coop in the backyard. The house also had access to the lake with a boat dock, which was built by Henry in the 1890s.⁹⁶

Residential Development

Box Elder Drive, situated south of Linden Drive and intersecting with Babcock Drive, served residential land uses, beginning with the construction of the F.H. King residence in 1889. Over time, this area housed farm employees, short course students, and agriculture professors. In 1898, Harry Russell built his private residence next to King's home and its distinctive round barn. Russell only briefly resided at this location. In the early 1900s Box Elder Drive was renamed Farm Place. At the same time, the original wooden dairy school building, constructed in 1889, the farm superintendent's house, built in 1868, and another farm residential structure were moved to Farm Place, solidifying this area as a residential enclave on the farm. Professor G.C. Humphrey lived in the farm superintendent's house at its new location until his retirement in 1942. The old dairy school building was converted into a farm laborers' dormitory, and the other structure, into a farm superintendent's building.⁹⁷

With his acceptance of the dean's position in 1907, Russell moved to the Babcock Drive residence that had been constructed for Dean Henry. Russell's residence on Farm Place was first rented and later donated to the university. Initially, the economic entomology department occupied the house, and later, naturalist Aldo Leopold and the wildlife management department claimed the building.

Visits to the agricultural experiment station increased as the state's farmers benefited from the significant and practical research coming out of the university. No longer considered a nuisance by Henry, this new wave of visitors came not to use the pleasure drive or to see a model farm, but to be educated on the latest agricultural research and potential applications on the farm. Said Henry in 1893, "The interest taken in our Experiment Station by the farmers of Wisconsin has grown enormously in recent years; and a large percentage of our present friends are familiar with our recent work."⁹⁸

⁹⁵ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, 1896, 3.

⁹⁶ Cruikshank, "10 Babcock Drive."

⁹⁷ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, 1901, 1-2.

⁹⁸ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, 1893, 1.

With the increasing profile of the research farm in the state and nation, Henry's interest soon expanded beyond pure agricultural research to include aesthetic factors. In 1892 a campus beautification movement emerged.

The Pleasure Drive

One of the most influential groups in fostering change on campus was the Madison Park and Pleasure Drive Association (MPPDA). The association began informally in 1892 under the leadership of Madison lawyer John Olin, and was officially incorporated in 1894. Olin hired landscape gardener O.C. Simonds to design a pleasure drive along the western edge of the agricultural campus. Considered one of the founders of the Prairie School of landscape design, Simonds incorporated romantic design features into a natural landscape framework. This style emphasized scenic views, variations in topography, natural features such as vegetation, streams, and rock outcroppings, and the preservation and enhancement of natural features.⁹⁹

The MPPDA adopted these Prairie-style landscape principles in constructing drives throughout Madison. The Bay Road (later named Willow Drive and now known as the Temin lakeshore path), was the first pleasure drive constructed by the association, in 1892. The narrow road, edged with willow trees, was built on a natural levee that extended through the extensive wetland bordering the western campus. In the mid-1890s a bridge over University Creek (now Willow Creek) linked the new Bay Road pleasure drive with the university's Lakeshore Drive, on the university farm's shore line. The new bridge across the creek also offered the tantalizing idea of westward expansion of the experimental farm.

Expansion to the West and South

In 1895 the agricultural station began experimenting with marsh drainage through the use of a dike, tile drains, and a windmill-powered pump on ten acres of land near Lake Mendota. Henry called the technique "practically the Holland system for reclaiming low lying and submerged lands."¹⁰⁰ The successful diversification of agricultural research had increased land-use demands on the farm. With the success of the marsh drainage experiment, the university recognized the potential of expansion on to the west of campus. The university purchased 40 acres directly west of the farm in 1896. They also designated land to the south near Camp Randall for pasture.¹⁰¹

Speculative land pricing in the 1890s, however, dissuaded the university from further land purchases directly to the west, and they began looking at alternatives to meet the farm's growing space needs. The dairy school was still the major source of research, students, and funding for the College of Agriculture, but other agriculture disciplines were gaining

⁹⁹ "The Landscape Gardener and His Work," *Garden and Forest* 10: 491 (July 21, 1897), 282-83.

¹⁰⁰ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, 1895, 2.

¹⁰¹ University of Wisconsin Board of Regents Detail of Land Holdings, June 30, 1972.

in credibility and ability to generate research revenue.¹⁰² Henry recognized the limitations of the farm for future research, and saw land acquisition as the solution to the growth of his research station. After years of expressing a territorial attitude toward the farm, Henry had recognized its shortcomings by the end the 1890s, and he foresaw the inevitable westward expansion of general university use.¹⁰³

Looking beyond the borders of the farm, the university purchased Hill Farms in 1897, a property two miles southwest of the university. Providing an immediate solution to the station's research needs, the 600-acre farm was located between University Avenue (top the north) and Mineral Point Road (to the south) and Midvale Boulevard (to the east) and Rosa Road (to the west).¹⁰⁴

An Aesthetic Farm, and “A Sense of the Beautiful”

While the research farm expanded outward, the experimental farm (“home farm”) was undergoing an aesthetic makeover. With thousands of visitors arriving annually, and the need for upgraded farm facilities becoming apparent, the idea that “in every plan we should aim to please the sense of the beautiful,” an idea that Henry had scorned ten years earlier, was now adopted.

Henry was soon advocating for the hiring of J.T.W. Jennings as the superintendent of the buildings and grounds for the university:

¹⁰² *Ibid.* Henry made the following statement in his 1896 report: “As for several years past dairying still occupies a large portion of our time and energies, this condition being warranted, we believe, by the enormous importance of the dairy industry to Wisconsin... Wisconsin is adapted by nature to the production of cheese of many varieties, all of high quality. Already the returns from various kinds of cheese bring to our state each year several million dollars Great as is the industry at the present time, it is capable of being multiplied several fold. It is of the highest importance that the grasses and grains of our state be manufactured into butter and cheese within our own boundary... Now that the science of bacteriology is being developed, we can hope to study intelligently what takes place in curing of cheese, and out of theses studies to formulated results which may rationally and easily guide the makers in turning out products satisfactory to the consumer in all particulars,” 1.

¹⁰³ Henry stated: “In adopting a policy of increasing the land holdings of the University, the Regents have shown the highest wisdom and foresight. From time to time the available areas of the university farm have been encroached upon by buildings, drives and parks. This is as it should be, and no complaint is uttered. The requirements of the College for instruction and research have been greatly hampered by these moves, but all can be made more than good by the purchase of additional land from time to time.” See Henry, W.A. *Wisconsin Agricultural Experiment Station Report*. Madison: University of Wisconsin Agricultural Experiment Station, 1906, 3.

¹⁰⁴ Henry wrote of the purchase: “The farm lands of the university domain proper are so limited in area as to fall short of the requirements of our Agricultural College and Experiment Station in their more recent growth. Our farming lands are being constantly reduced through encroachment of buildings, drives, etc. made necessary by the growth of the Agricultural College. For some time past it was hoped that we might be able to purchase marshland lying immediately west of the farm and joining to it, but the prices asked for these waste tracts are far in excess of their worth and our ability to buy. Fortunately, a farm well suited to our needs in very many respects became available at a very reasonable cost. The ‘Hill Farm,’ consisting of 160 acres (the original acreage, the University would make subsequent purchases totally 600 acres), lies two miles west of our present farm buildings of the Sauk road, a macadamized highway which passes along its front...” See W.A. Henry, *Wisconsin Agricultural Experiment Station Report*. Madison: University of Wisconsin Agricultural Experiment Station, 1897, 2-3.

I sincerely hope that yourself and the Board will not regard this communication as an act of meddling or hold that I have gone outside of my proper province. Allow me further to say that my appreciation of Mr. Jennings' abilities and worth come wholly from the business relations I have had with him and from no other source whatsoever.¹⁰⁵

Jennings' arrival ushered in an era of innovative barn technology and architecture on the campus. His 1898 design for the state-of-the-art Dairy Barn, with its distinctive Norman silo, along with the 1899 transformation of the main barn at the intersection of Linden and Elm Drives into the horse barn (also with Norman architectural style influences), created agrarian landmarks that remain on the agricultural campus today. The yards at the rear of the Hog House and dairy barn were macadamized, as was the roadway (Green Ash Drive) that led eastward from the dairy barn. Other improvements at the farm included a dozen paddocks outlined by turned posts and Page fencing, which allowed visitors and students access to the stock close to the buildings.¹⁰⁶

On the home farm, Henry documented the land use in 1899:

- The experimental farm proper covers 125 acres of available land adjoining the college campus and skirting Lake Mendota
- Twelve acres are arranged for irrigation investigations, the provisions being an engine, four-inch centrifugal pump, and about 2,000 feet of 6 and 4-inch wrought iron pipe with hydrants, etc.
- Ten acres are devoted to horticultural research, including orchards of tree fruit, areas planted to bush fruits, etc.
- Ten acres of marshland on a level with Fourth Lake have been reclaimed through diking, draining, and lifting the water over the dike into the lake by a windmill.
- Other plats of land are devoted to raising forage crops and there are pastures for animals used in experiments.¹⁰⁷

Romanticism and the City Beautiful

By the early 1900s landscape gardener O.C. Simonds was consulting with the university on various landscape projects at a time of significant change on campus. The various farm residential structures were moved to Farm Place, including the early farm superintendent's house (figure 9) and the original dairy house building, both located near the main barn (recently converted to the horse

¹⁰⁵ Dean W. Henry, letter to President Adams, April 18. 1899. University of Wisconsin Archives, Administration of the Dean, College of Agriculture, 9/1/1-2.

¹⁰⁶ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*. Madison: University of Wisconsin, Agricultural Experiment Station, 1899.

¹⁰⁷ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*. Madison: University of Wisconsin, Agricultural Experiment Station, 1899.

barn) since the early 1880s. These removals cleared a large space of ground for future education buildings.¹⁰⁸



Figure 9: Sketch of farm superintendent's house, circa 1900.

Agricultural Hall

As the college and farm continued to grow and attendance at the short course programs increased, Henry was “eager to use all available means to keep our state in the very front rank in all that pertains to agriculture.”¹⁰⁹

In 1901 Dean Henry lobbied the regents and state leaders for a new centralized agricultural building on the agricultural campus. The College of Agriculture’s headquarters in South Hall, on the main campus, had become inadequate in size and location. In contrast to his early support for function over aesthetics, Henry focused on the aesthetic style and placement of the new agricultural building. Henry and campus architect Jennings traveled to universities in the eastern United States to gather ideas and inspiration for the new hall, which would serve as the centerpiece of the agricultural campus.¹¹⁰

In 1903, the new Agricultural Hall was built on the southern side of Observatory Hill. The location provided a visual connection between the building and all facets of the

¹⁰⁸ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, Madison: University of Wisconsin Agricultural Experiment Station, 1901, 1-2.

¹⁰⁹ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*. Madison: University of Wisconsin Agricultural Experiment Station, 1898, 1.

¹¹⁰ “Local and Personal,” *Daily Cardinal* April 30, 1900, 1. “Mr. O.C. Simonds is here on a three-day trip to study the layout of campus and determine the location of paths and bridges.”

college: the horse barn to the west, University Avenue to the south, and the early agricultural campus buildings (Hiram Smith Hall, King Hall, and the Agricultural Heating Station) to the northwest.

Agricultural Hall marked a turning point in the landscape-planning philosophy of the agricultural campus. A 1901 report on the site illustrated the continuing influence of Simonds' romantic style, with the proposed alignment of the new building taking the form of a loose quadrangle with the existing buildings already on the hill: Washburn Observatory, King Hall and Hiram Smith Hall. Yet its architecture was also indicative of a new aesthetic movement, the City Beautiful Movement, a civic-centered style of monumental buildings and strong axial relationships that was introduced at the Columbian Exposition of 1893.

For Henry the construction of Agricultural Hall was the culmination of the progress of building and diversifying the College of Agriculture:

In our new agricultural hall we have a structure which should stand for ages as in some fair measure representative of the intelligence, earnestness and ambition of the agricultural people of Wisconsin at the beginning of the twentieth century.¹¹¹

From its commanding presence on Observatory Hill, the new hall became the focal point for the college and brought the City Beautiful Movement to the agricultural campus. With its classical proportions, axial symmetry, and architectural detail, the building dominated the landscape.

An Ornamental Lawn

I recall vividly standing on the front of the 'porch' of Agricultural Hall with Dean Henry one day, and as we looked to the West he described in detail the landscaping around this building. It seems they had the landscape gardener from Lincoln Park in Chicago lay out the plan and there was some argument about paying him either \$200 or \$400 for this work. Dean Henry offered to pay this charge from his own pocket—he was very proud of the beautiful view, especially that looking west toward the horse barn.¹¹²

Prior to the construction of Agricultural Hall, the college and experimental farm were two separate districts, with research fields dividing the buildings from the farm. The construction of Agricultural Hall, however, became an impetus for landscape change in the surrounding area. Roads were improved and new sidewalks constructed.¹¹³ Aesthetic

¹¹¹ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*. Madison: University of Wisconsin Agricultural Experiment Station, 1903, 2.

¹¹² Andrew Hopkins, February 19, 1952 correspondence with E.B. Fred. See Andrew Hopkins Papers, Wisconsin Historical Society Archives.

¹¹³ At this time, access to the experimental farm was greatly increased by a "macadam" road built from the marsh bridge easterly along the lakeshore drive and southward to the horse barn (Elm Drive), connecting to

considerations were now a regular feature in Henry's descriptions of the college.¹¹⁴ In 1905, possibly under the design direction of Simonds, a pastoral lawn and ornamental plantings were created, visually and symbolically connecting the horse barn with Agricultural Hall. The sweeping lawn blurred the separation between the college and the farm, and was a significant example of the romantic landscape movement on the farm. In the 1920s Henry Mall would become the "show grounds" of the college while the lawn became the symbolic "front yard," of the farm. Numerous farm photographs and gatherings were staged there, and a caption from a 1933 *Wisconsin Country Magazine* photo called the lawn "a favorite campus view."¹¹⁵

A Master Plan

In 1905 the board of regents commissioned Simonds to create a master plan for the entire campus grounds (figure 13). The plan illustrated the aesthetic shift occurring in landscape design at the turn of the century. The area to the north of Linden Drive, with naturalized plantings and the informal spatial arrangements of existing buildings, was reflective of the Romantic aesthetic. It stood in stark contrast to the proposed area south of Linden Drive, with its City Beautiful-influenced formality of avenues of trees, large expanses of lawn, and an axial mall centered on Agricultural Hall and extending south to University Avenue.¹¹⁶ In 1907, buildings for the College of Agriculture were constructed to the south of Linden Drive for the first time. They included Agricultural Engineering and Agronomy, buildings that reflected the university's increasingly diverse agricultural specialties. The Agricultural Engineering building was the first department of its kind in the United States. The Agronomy building was also indicative of the influence of Ransom Moore and the department of agronomy's growing influence on crop seed production, quality, and sources.

An Era Comes to an End

When Dean Henry arrived in Madison in 1880, the university farm consisted of two buildings, a few research plots, a neglected orchard and vineyard, and a series of winding

the west end of Linden Drive. Henry wrote, "This improvement was sorely needed and comes none to soon. Following this work a large amount of cement sidewalk will be constructed. There will yet remain the macadamizing of the east end of Linden drive, all of the dean's drive and a highway down Observatory Hill slope to join the last named. This with the road building and landscaping of the grounds about our new agricultural hall will no doubt occupy our attention and all our spare funds for some two or three years to come." See W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, 1902, 113.

¹¹⁴ Andrew Hopkins, February 19, 1952 correspondence with E.B. Fred.

¹¹⁵ "A Favorite Campus View," caption under a photograph of the lawn between Agricultural Hall and the horse barn. See *Wisconsin Country Magazine*, April 1933, 6.

¹¹⁶ "Several years ago when the late Dr. Adams was president of the University, an arrangement was made with O.C. Simonds, a well-known landscape gardener of Chicago, for a report upon a plan for the improvement of the roads and grounds. This work was begun but Dr. Adams was taken ill and the report was never rendered. The regents requested Mr. Simonds to complete his study and render a report. This he has done and his report gives a complete plan for the improvement of the grounds." See the Board of Regents Biennial Report, University of Wisconsin-Madison, 1904-5, 20.

roads that passed through a landscape that retained much of its natural character. By the time of Henry's retirement in 1907, the landscape was completely altered to reflect his vision of a productive research farm and agricultural college. The natural character of the landscape was reshaped through the draining of wetlands and the clearing of native oak stands. The early farm buildings were either moved or rebuilt into grandiose structures. Numerous specialized barns were built and a College of Agriculture was established. The college then expanded to the east and south, the farm to the west. Land-use conflicts, however, would soon change Henry's domain, as the pressures posed by general university growth would dramatically affect the landscape of the research farm and agricultural college (figures 10-12).



Agricultural Campus (rev. 2011)

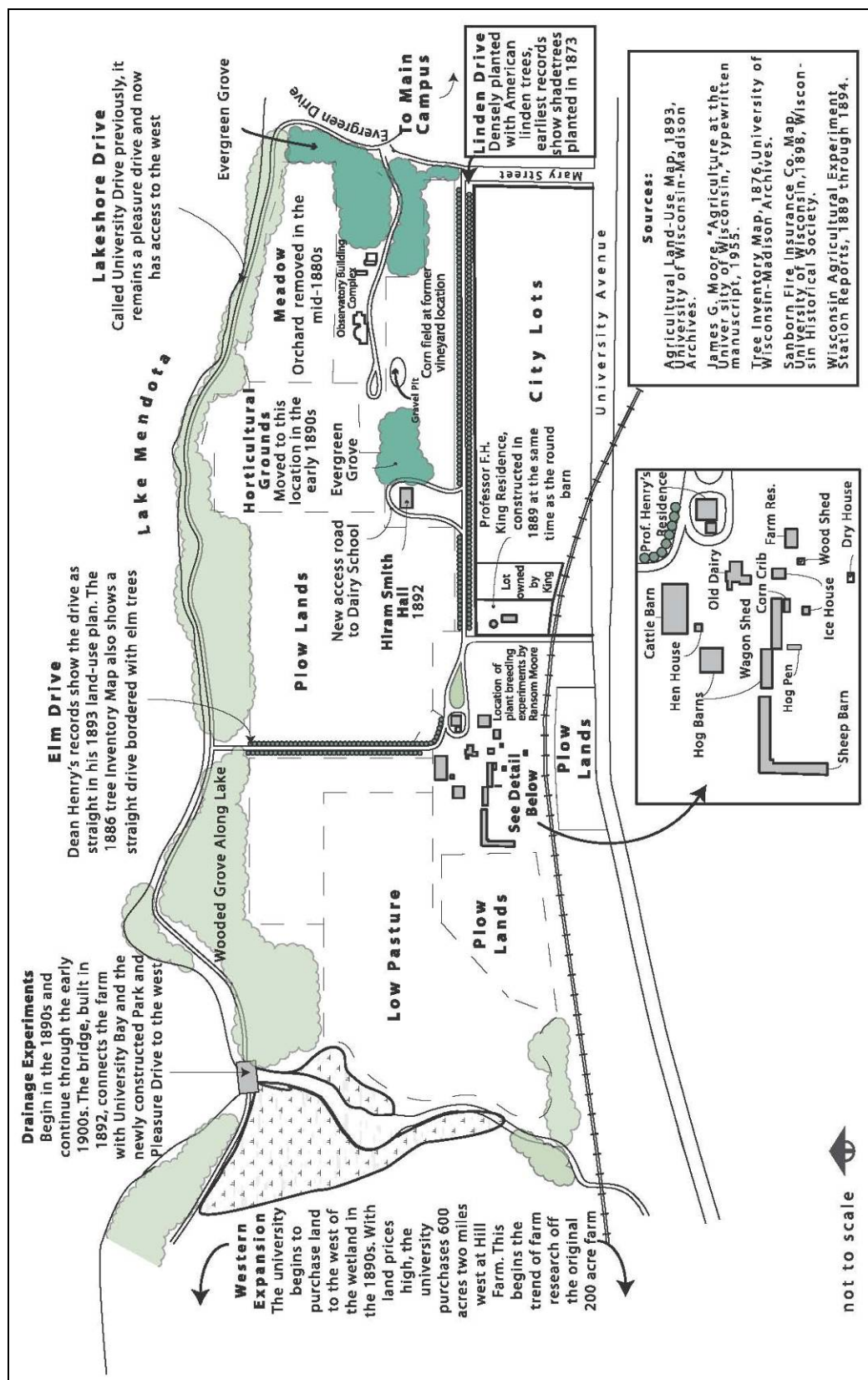


Figure 11: Period plan of agricultural campus, 1890 through 1894.

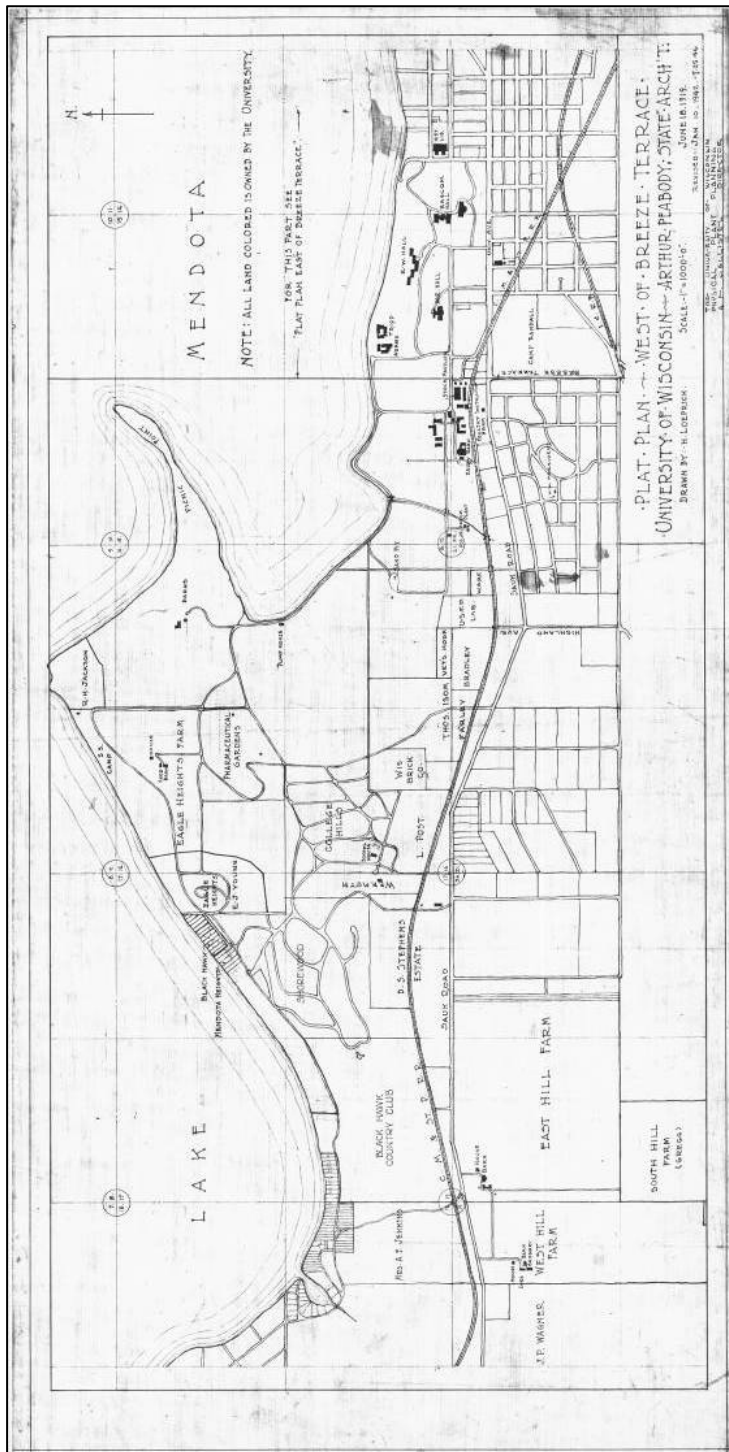


Figure 12: Plat plan of farm properties, 1919. Numerous farm buildings were constructed and agricultural land holdings expanded beyond the boundaries of the ‘home farm’ after 1896. The Hill Farms were purchased in the late 1890s.



Figure 13: Plan of the Grounds prepared by O.C. Simonds, 1906.

Period of Significance 1907-1941:

Agricultural diversification, the influence of the City Beautiful movement, and the naturalistic style of landscaping

By the early 1900s, growth in all university disciplines was straining existing space throughout the campus. The university's emphasis on practical and applied education created a need for specialized buildings and led to a re-evaluation of all university land for potential development. In 1908, university president Charles Van Hise commissioned city planners Warren Laird and Paul Cret to create a master plan for the university with campus architect Arthur Peabody. Together, they translated the aesthetics of the City Beautiful Movement into a plan for the campus.

On the agricultural campus, Peabody, Laird and Cret's plan called for the orientation of buildings into classical, formal relationships. This contrasted with the previous romantic landscape of curving roads, vernacular buildings, and revival architectural styles.

This ambitious plan proved too elaborate for the university to implement fully. However, over the next 30 years, some of the plan's basic concepts of land-use clustering, axial spatial organization, and classical building styles were incorporated into expansion plans for the university. For example, the Home Economics (Nancy Nicholas Hall), Horticulture, and Soils buildings all reflected the Beaux Arts-style of civic architecture inspired by the City Beautiful Movement. The placement of the Home Economics building, set back from the road, was consistent with Agricultural Hall, creating a unified spatial arrangement on Linden Drive. Laird and Cret viewed the drive itself as a significant landscape feature and named it the Greater Mall, visually extending Bascom Hill to the west.

Farther west, the Horticulture building was placed in a strong axial relationship with the Dairy Road in 1910.¹¹⁷ The horticultural gardens shifted southward from the Lake Mendota shoreline to a new site situated west and south of the new Horticulture building on Linden Drive.¹¹⁸ With the addition of the Hiram Smith Annex in 1910 and the Soils building in 1914, Laird and Cret imposed a more formal order on the loose spatial arrangement offered by the Hiram Smith/King Hall cluster. The development of the Lesser Mall (Henry Mall) also followed this new formal spatial organization (see the *Henry Mall Cultural Landscape Inventory* chapter for more details).

¹¹⁷ The Dairy Road was re-named Babcock Drive; until the 1950s the Dairy Road was centered on the Horticulture building. The last remnant of this road was removed in 2005 during the construction of the Microbial Sciences building to the west of Hiram Smith Hall.

¹¹⁸ The horticulture gardens remained at this location until the 1980s, until removed with the construction of the Plant Sciences addition to the Horticulture building.

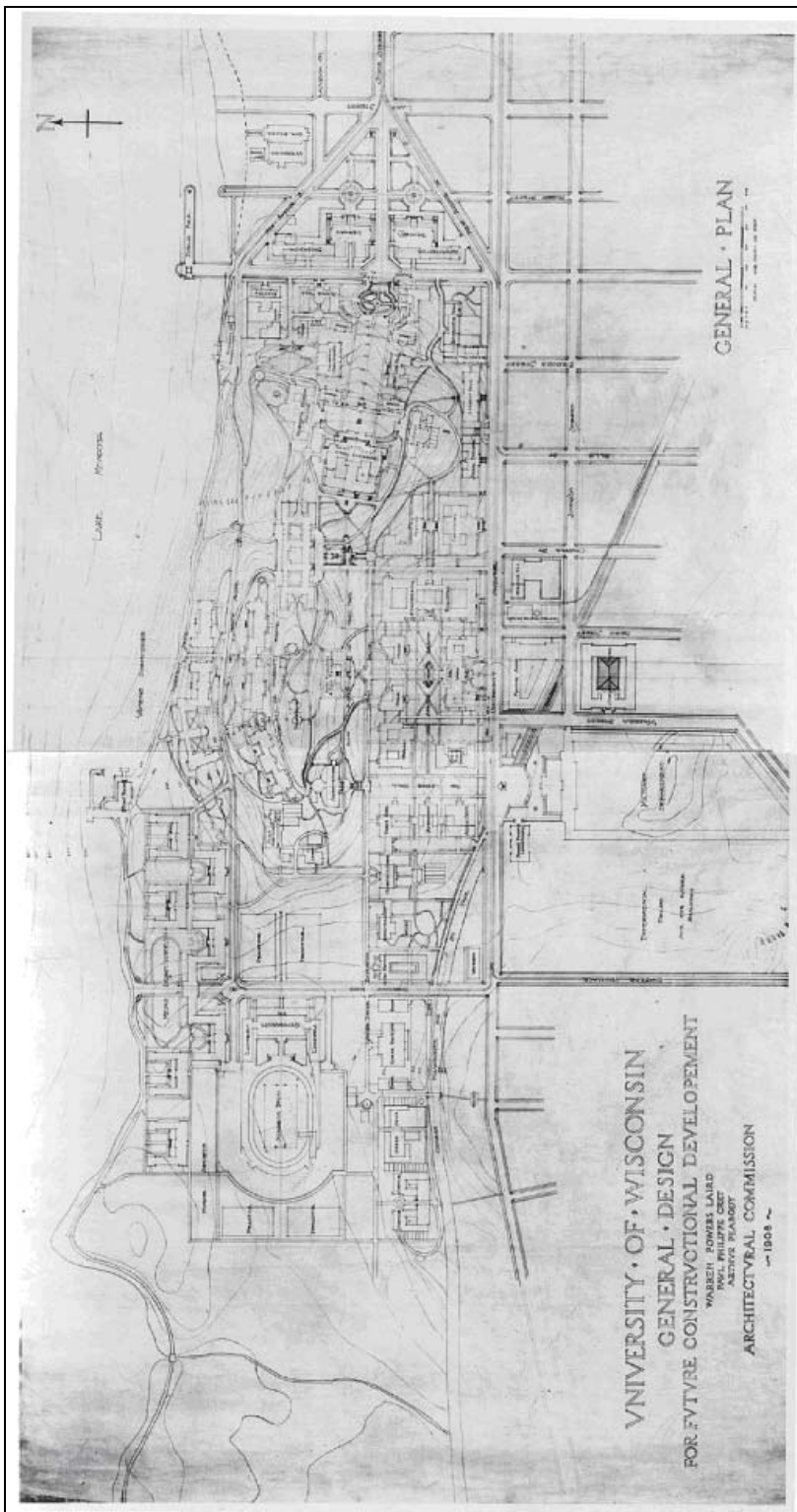


Figure 14: General design plan by Warren Laird and Paul Cret, 1908.



The Peabody, Laird and Cret plan (figure 14) also influenced architecture on the experimental farm, particularly the construction of the impressive Stock Pavilion in 1909. Of this building, Dean Russell wrote, “From an architectural point of view the building is regarded as one of the most imposing on the ground.”¹¹⁹ The Stock Pavilion was soon being used for a wide variety of university purposes, ranging from classical concerts and public orations to stock judging and horse shows. Bordering Henry’s ornamental lawn to the south, the “Cowlesium” created an important focal point for farm activities and university functions on the agricultural campus.¹²⁰

Changes in Land Use

Critical to the 1908 plan was the inclusion of the original 1866 Morrill Land Grant purchase as part of planning for general university land use. The impact on both the farm and agricultural college was significant, instigating major landscape changes to both. The Peabody, Laird and Cret plan proposed the geographic clustering of university disciplines, including basic sciences, applied sciences, engineering, medicine and agriculture. The color of the brick would identify distinct colleges. Red brick signified the agricultural campus. Most significantly, the plan called for the existing agricultural landscape to be used for distinctly non-agricultural uses: for dormitories, athletics and intramural activity. Peabody, Laird and Cret called for the conversion of farmland into recreational fields and athletic facilities, and the transformation of pasture and orchard areas near the lake into dormitory complexes, forever altering the perception as the western campus as the domain of the agricultural college. Given the severely land-strapped university, farmland came to be viewed by many as space for potential expansion.

Dean Russell Redefines Agriculture

In 1907, Dean Henry retired and Harry Russell, a leading professor in agricultural bacteriology, became the new dean of agriculture. Whereas Henry had been a broad visionary intent on establishing the college as a legitimate agricultural enterprise, Russell was a scientist who sought to diversify the campus through the creation of new fields of study. Under his leadership, new departments were established, including Home Economics in 1909, and Experimental Breeding (Genetics), Plant Pathology, and Poultry in 1910. These additions and rising student enrollments created more land-use demands. Thus, besides heeding the land-use goals of the 1908 master plan, Russell had to accommodate new buildings and landscapes dedicated to agriculture. He was continually looking outward, beyond the original farm, for expansion possibilities.¹²¹ While Dean Henry had great authority over the placement of buildings and landscape changes, Dean

¹¹⁹ H.L. Russell, *Wisconsin Agricultural Experiment Station Report*. Madison: University of Wisconsin Agricultural Experiment Station, 1908, 5.

¹²⁰ “Presidents, Musicians, and Livestock Perform in the University ‘Cowliseum,’” *Wisconsin Country Magazine*, February 1951, 8-9, 31.

¹²¹ H.L. Russell, *Wisconsin Agricultural Experiment Station Report*. Madison: University of Wisconsin Agricultural Experiment Station, 1907, 4.

Russell was limited by the 1908 plan that was viewed as both an authoritative blueprint and a source of ambiguity.¹²²

The Orchard and the Dormitory

Whenever we think of the University's growth around the Ag campus, we are reminded of Poe's story "The Pit and the Pendulum", where each swing of the pendulum brought the scimitar closer to the doomed man's neck. Just so does practically each new bit of university expansion come closer to the heart of the Ag college.¹²³

The College of Agriculture's immediate land-use needs required action by Russell. The orchard area and horticultural grounds located close to the lake and a short distance from the main campus were targeted for student residential development. While the construction of the dormitories did not occur for another twenty years, their proposed construction left long-range planning for the agricultural college in an ambiguous state. Pondering the future of the horticultural area, Dean Russell wrote in 1910, "This indefiniteness of future plans has been occasioned by the indefinite ideas of the regents with reference to future construction, and leaves the whole matter up in the air."¹²⁴ The orchard remained on Observatory Hill until the construction of the lakeshore dormitories, Adams and Tripp Halls, in 1926. While Russell did not search, as Henry had before him, for pilfered fruit under dormitory beds, he did have to deal with numerous relocations of the orchard.¹²⁵

¹²² The western campus land use issues generated by the Laird and Cret plan is reflected in this correspondence between Dean Russell and James Moore, dated August 16, 1910: "I have your note relative to use of Sandsten-Whitson tract (current location of the Forest Products Laboratory). The proposition at the outset was that this be secured for fruit or orchard purposes, especially the hilly portion, if the horticultural grounds including the orchard nursery, etc., on the north slope of Observatory Hill were to be taken over for general university purposes, as proposed in the plans of Professor Laird... The planting of an orchard so far from our base of operations should not be done it seems to me unless it is positively necessary, as the difficulty of operation and watching the same when it comes into bearing would be a source of considerable inconvenience. Any necessary expansion might preferably be made contiguous to our present operations. For this purpose there remains the possibility of expansion to the eastward back of Comstocks (Observatory director) and the utilization of ground now occupied by nursery, flowers, etc." See University of Wisconsin- Madison Archives, series 9/1/1/5, Box 16.

¹²³ "The Ever Tightening Noose," *Wisconsin Country Magazine*, editorial, 10 May 1929, 10.

¹²⁴ University of Wisconsin Board of Regents Detail of Land Holdings, 30 June 1972: The University purchased both the Andrew R. Whitson and the Emil P. Sandsten tracts in 1909. For a short time the tracts served as a location for the orchard. In 1931 they were then conveyed to the USDA Forest Products Laboratory.

¹²⁵ Other orchard locations included an area near Camp Randall, the current location of the Forest Products Laboratory and the Veterans Hospital.

Athletics for All

The advent of intramural sports placed further pressure on the agricultural lands. With the introduction of dormitories along the shoreline, recreational fields were soon needed for the student residents. The area surrounding the dean's residence was moved from the jurisdiction of the College of Agriculture to the athletic department and its head George Little. His philosophy of "Athletics for All" helped to promote the growth of intramural sports at the university. Farm fields located next to dormitories were converted to intramural fields as the students housing complex expanded westward.¹²⁶

Laird and Cret's 1908 proposal for a large stadium to the west of the proposed lakeshore dormitories did not materialize (figure 14). Instead, in 1913, the university decided to use Camp Randall for this function, which changed land-use planning for many departments. For the agricultural college it meant somewhat of a reprieve, as it only had to contend with dormitories and intramural sports for dominance of the western campus.

University Bay Expansion

The land due west of the original university farm always loomed as a tantalizing addition to the increasingly space-challenged university. Both Henry and Russell saw potential for expanding the farm on campus. John Nolen in his ambitious 1910 city plan, *Madison the Model City*, envisioned an arboretum on the land west of the university.¹²⁷ Speculative landowners in the area, however, quickly realized the potential profit of land proximate to the university and demanded financially prohibitive prices for their western University Bay properties. Nolen's arboretum concept was not realized until the early 1930s when 600 acres of land were purchased two miles south of the university for this purpose.

The ongoing successful drainage experiments that began in 1896 encouraged agricultural expansion westward to the university's boundary. A series of land purchases throughout the first half of the twentieth century provided the acreage for this westward development.¹²⁸ The board of regents, however, objected to the high cost of land purchased on University Bay between 1908 and 1914, and began an investigation that stymied further expansion until the final purchase of the Picnic Point Farm in 1939-41 and the Isom tract (Winterble House) in 1965.¹²⁹

As Russell watched the experimental farm slowly disappear under the foundations of dormitories, and the expanses of green lawn transform into intramural fields, the land at University Bay proved not very conducive to experimental agriculture. Wild game, poor soils, made it difficult for the researchers to obtain viable results from their

¹²⁶ In 1925, when George Little was hired as the Athletic Director at the University he launched an "Athletics for All" Campaign; David E. Cronon and John W. Jenkins, *The University of Wisconsin: A History* (Madison: University of Wisconsin Press), 657.

¹²⁷ John Nolen, *Madison: A Model City* (Boston, Mass, 1911).

¹²⁸ W.A. Henry, *Wisconsin Agricultural Experiment Station* annual reports from 1883-1907.

¹²⁹ In October 1965, WARF purchased the Winterble Property (formerly the Thomas Isom tract also known as the Keystone House. WARF then donated the property to the University of Wisconsin in 1968.

experiments.¹³⁰ By the late 1920s, naturalist Aldo Leopold was lobbying for wildlife preservation on the western campus. In 1927 much of University Bay was designated a wildlife refuge. The strains on agricultural land only escalated as the conflict between aesthetics, recreation and agricultural research shifted to the open spaces of the western campus. All were at constant odds in the battle for University Bay.¹³¹

The purchase of the first satellite experiment station outside the Madison area in 1909 moved the experimental farm well beyond the confines of its original 198-acre tract. This was followed by the establishment of an experiment station at Spooner, in northern Wisconsin, the first in a series of land acquisitions outside of those in Dane County. These new research fields provided varied environmental conditions, furthering the ability of the station to help the farmers in the state. At the same time, these field stations took the agricultural campus one step closer toward the transition from an agrarian farm to general college use.

The Tent Colony

Acute housing shortages led to a unique land use on the Lake Mendota shoreline (north of the current Eagle Heights Apartments), a seasonal tent colony for summer session students. The encampment, which lasted from 1912 to 1962, providing students and their families with inexpensive summer residences. The colony was run by Albert Gallistel, director of the physical plant, and his wife Eleanor, for much of its existence.¹³²

Housing Shortages

The continued popularity of the Short Course, and the increasing importance of the Long Course, made housing for agricultural students a critical issue. With no money to fund new housing, the College of Agriculture searched for creative methods to fashion dormitories in the late 1920s and early 1930s. In 1932 a World War I-era wooden dormitory, originally used by the Student Army Training Corps, was moved from Camp Randall; it first served as a United States Forest Products laboratory and then was remodeled into a Short Course dormitory behind the Stock Pavilion (figure 21).

In 1934 the Sheep Barn was remodeled to accommodate Short Course students and was renamed Kleinheinz Hall in honor of the university's shepherd, Frank Kleinheinz. The converted barn was located between the Dairy Barn and the Genetics Barn in an area used for animal husbandry purposes. Never considered a permanent solution, the rudimentary facilities and close proximity to activities associated with animal husbandry were a source of commentary throughout its 20 year history.¹³³

¹³⁰ Richard E. McCabe, *A Niche in Time*, unpublished book on the environmental and cultural history of University Bay; see the University Bay Collection, , University of Wisconsin-Madison Archives.

¹³¹ *Ibid.*

¹³² Remnants of the former tent colony can still be viewed in the Lakeshore Nature Preserve. An extensive history of area is available at: <http://www.lakeshorepreserve.wisc.edu/visit/tentcolony.htm>

¹³³ Feldman, *Buildings of the University of Wisconsin*, 1997.

The Farm: A Research Shift to Basic Science

Between 1910 and 1940, the experimental farm was in transition, reflecting the developing complexity and specialization of agricultural research. Swine barns, constructed in 1901, were moved to the north of the horse barn in 1915. Poultry barns were built in 1910 and a short time later, a poultry farm area was designated on the Whitson/Sandsten tract purchased in 1909. The beef cattle barn was constructed in 1916. The genetics barn moved to where the swine barn had been in 1915, the same year the hog serum plant was constructed. Two wings were added to the dairy barn, the first in 1909 and the second in 1916. As the decades passed, field research formerly conducted on the home farm shifted to the experimental stations throughout the state, including the Hill Farms station two miles west of campus, and the Eagle Heights Farm on University Bay.

The sheep barn, constructed in the 1890s, was converted to dormitories in the 1930s, as enrollment in the Short Course increased. This transition reflected the growing obsolescence of shepherders and sheep barns. The genetics barn, however, adjacent to the newly christened Kleinheinz Dormitory, flourished as agricultural research shifted to emphasize the basic sciences.

The scientific selection of animals and plants for improved agricultural quality and production was the focus of research on the experimental farm, and significant discoveries were made in many areas. In horticulture, the development of a significant tobacco breeding program, first under James Johnson (1909-1952) and later under William Ogden (1924-1974), the pioneering work of James Milward (1906-1951) in the development of superior potato seed stocks, and later, the cultivar testing of vegetables by O.B. Coombs (1930-1979), all contributed to significant advancements.¹³⁴

Research in plant pathology, established by Professor L.R. Jones in 1910, included a study on the severe problem of cabbage wilt in the state. The department evolved to study diseases affecting every field, forage, fruit and vegetable crop in Wisconsin. Southwest of the Horticulture building, a “disease garden” served as a living laboratory for faculty and students.

Agronomists, under the direction of Ransom Moore, studied improved field crops, building on the modest plant breeding experiments Moore had conducted at the current site of the Stock Pavilion in the early 1900s.¹³⁵ Working with the Wisconsin Agricultural Experiment Association, Moore reached out to agricultural college alumni to help improve seed quality. The agronomy department introduced improved cultivars of barley, oats, soybeans, corn and alfalfa.¹³⁶ The association quickly became a profitable

¹³⁴ Department of Horticulture, “1889-1989—A Century of Horticulture,” manuscript publication provided by Ed Hasselkus, Department of Horticulture.

¹³⁵ Dwayne Rohweder, David Peterson and Joe Lauer, eds., *The University of Wisconsin Agronomy Department: The First One Hundred Years*. Madison: The Board of Regents of the University of Wisconsin System, 2003.

¹³⁶ Rohweder *et al*, *The University of Wisconsin Agronomy Department*.

way for the university to make money through the distribution of quality seeds. Moore's innovative programs attracted the attention of other agricultural colleges, and they invited Moore to speak on how they could implement a similar program.¹³⁷

The agronomy department moved from Henry Mall to the new addition to the horticulture building in 1931. The new wing was later named Moore Hall, in honor of Ransom Moore. The former agronomy building on Henry Mall was backfilled by the genetics department, reflecting the rise of basic science in agriculture. In the animal husbandry department, research on selective cattle breeding and on tracking cattle pedigrees produced important advancements in artificial insemination.

Harry Russell's work in Hiram Smith Hall included the development of the test for bovine tuberculosis, which was demonstrated to farmers at the Stock Pavilion in 1910. Russell also studied incomplete sterilization during pea canning operations, eventually leading to new processes that resolved the "exploding can" problem caused by bacterial fermentation. Additionally, Stephen Babcock continued to work beyond his famous butterfat milk test. His work contributed significantly to an understanding of the bacteriology of cheese curing and milk pasteurization, work he did with Russell. Babcock's nutritional studies led to the discovery of Fibrin in milk, which later allowed biochemist Henry Steenbock to discover a method to recover Vitamin A in its pure form.¹³⁸

A New Funding Source for the University

In 1923, Steenbock found that irradiating food with ultraviolet light increased its vitamin D content, a discovery that would eventually eliminate rickets. He patented his finding in order to control the accuracy and reliability of the process. But rather than profit personally from his discovery, Steenbock believed that any monetary gains should be returned to the university to support research. So he proposed the establishment of an independent non-profit trust to manage patents and oversee revenue generated by university inventions. In 1925, the Wisconsin Alumni Research Foundation (WARF) was created. Fifteen percent of the receipts from patents went to the scientist, while the vast majority went to the university for on-going research, scholarships, and fellowship grants.

The potential economic power of WARF to fund research on the agricultural campus was soon realized as the Depression forced the state to severely limit university funding. Only projects that had full funding prior to 1930 were allowed to continue. Cash-strapped, the expansion and improvement of buildings and infrastructure was minimal; only those buildings in the planning stages prior to the Depression were constructed. In 1931, the Animal Science Laboratory (now part of the Meat Science and Muscle Biology

¹³⁷ Wilbur Glover, *Farm and College: the College of Agriculture of the University of Wisconsin, A History* (Madison: University of Wisconsin Press, 1952).

¹³⁸ Merle Curti and Vernon Carstensen provide a detailed account of the research in agriculture, its accomplishments, including Steenbock's discoveries. See Merle Curti and Vernon Carstensen, *The University of Wisconsin: A History 1848-1925* (Madison: University of Wisconsin Press, 1949).

Laboratory), located just west of the Stock Pavilion, was constructed. It was intended to be a part of a quadrangle of animal research buildings; however a lack of funds prevented any future development.

WARF, however, was able to subsidize numerous university programs in the 1930s. In 1938, WARF funds were used to finance building construction for the first time. Appropriately, it was for an addition to Steenbock's Biochemistry building (formerly Agricultural Chemistry) on Henry Mall.¹³⁹ WARF funding also made possible the growth of laboratories and research facilities after World War II, all of which accelerated the transition of Henry's pastoral farm into a 21st-century science and technology center.

Linden Drive and the Automobile

In the late 19th and early 20th centuries, horses and carriages traveled along campus drives up to the creamery, out to the farm and along the pleasure drives to the west. But with the rise of the automobile, the university's open spaces and roadways had to adapt to this new transportation technology. The university's romantic winding roads, while conducive to carriage rides, were not as accommodating to automobiles. As the 20th century progressed, vehicular circulation played an increasingly important role in the evolution of the agricultural campus.

Changes in road design began as early as 1900 when Linden Drive was altered into a simple curve that connected with Elm Drive at the horse barn. The university was soon enamored with straight lines, influenced both by automobile accessibility and by the formal City Beautiful Movement aesthetic, resulting in new road alignments. The need for wider roads and improved infrastructure meant the dramatic avenue of narrowly planted linden trees along Linden Drive was no longer functional. In the early 1900s, a third row of lindens was planted to offset the removal of one of the initial rows. The road was widened in 1916.¹⁴⁰

Observatory Drive

Observatory Drive provided access to the observatory building cluster, but went no farther until the early 1900s when Agricultural Hall was constructed. At that time a carriage path linked the new building to the main campus via Observatory hill to the east. In 1934, Observatory Drive was realigned to create a more direct route between Babcock Drive and Charter Street (Evergreen Drive). The old road, which had meandered up the hill between the observatory buildings, was reconnected to a pedestrian pathway from Agricultural Hall and became a major pedestrian access way to the western campus.

Automobiles also made it possible for off-campus field research to occur, which ushered in a tidal wave of general university land uses that changed the agricultural campus after

¹³⁹ Feldman, *The Buildings of the University of Wisconsin*.

¹⁴⁰ Thomas and Hasselkus, "The Trees of the University of Wisconsin-Madison Campus."

World War II. Parking became a contentious issue as early as the 1920s and remains so today. Parking on the grass from Henry Mall to the Home Economics building became an aesthetic nightmare for the editorial writers of the *Wisconsin Country Magazine*, who wrote that the lawn “is now as bare of grass as a country road.”¹⁴¹ The disapproving editorial appeared after the university decided to ban parking on Bascom Hill, subsequently increasing parking along Linden Drive and “marring the beauty of the Ag Campus.”

The Friends of Our Native Landscape

While major discoveries and diversification in research shaped the agricultural campus landscape, aesthetics also played an important role in defining its form and character. In 1915 the university hired its first landscape architect, Franz Aust. As both a teacher and supervisor of university grounds, Aust was influenced by the landscape aesthetics of his mentors, Wilhelm Miller at the University of Illinois, and Midwestern landscape architect Jens Jensen. Both were important advocates of the “Prairie Landscape Movement,” an aesthetic style that emphasized the use of native plants and existing natural landscape features. Aust wrote to Jensen soon after his appointment:

As you say, everything around here is ‘dope’, but I hope to instill a little bit of the spirit which I secured from by associations with Dr. Miller and yourself into the work here if you will only be patient and give me time enough. The people here are ready to do things if they are only shown how to do them. You may be interested to know that Dean Russell has been the instigator of having large masses of sumac under planting of lilies of the valley placed on the agricultural campus. Did you give him this idea?¹⁴²

Aust’s early work at the university included overseeing the overall tidiness of the campus, community outreach, and garden design.¹⁴³ Just as the Laird and Cret plan directed the overall spatial arrangement and land use on the agricultural campus, Aust influenced the horticultural design of the landscape. His broad understanding of landscape architecture also included urban and rural planning, ecology, and conservation.

Aust became involved with the Friends of Our Native Landscape organization in 1920, and he served as editor of its publication, *Our Native Landscape*, until 1943. The Friends

¹⁴¹ Editorial, *Wisconsin Country Magazine*, November 1924, 40.

¹⁴² Franz Aust, personal correspondence to Jens Jensen, 23 October 1915, from Franz Aust Papers, Wisconsin Historical Society Archives (Microfilm Reel 2, 437). An intriguing connection between Dean Russell and Jens Jensen is evident throughout Aust’s papers, inferring a strong friendship and respect for one another. When the university honored Jensen in the late 1930s, Russell’s support and recommendation were instrumental in bestowing Jensen with an honorary degree.

¹⁴³ Franz Aust, letter to Professor Moore (regarding beautification of the Agricultural Campus, May 3, 1933, in the Horticulture Subject File, Agriculture Dean Collection 9/1/1/. In a letter to Agronomy Department Head, R.A. Moore, Aust encouraged Moore to be more cognizant of the aesthetics of the area. “We have also made more progress in keeping the areas about the greenhouses more sightly. You will note we are cleaning up the situation back of the Agricultural Engineering building.” And finally, Aust asked: “One other question remains and that is the seed plots of Professor Stone’s. What provision could your Department make so that these will be more sightly throughout the summer months?”

of Our Native Landscape evolved from a Midwestern movement led by Aust's mentors Wilhelm Miller and Jens Jensen. A forerunner of the ecological restoration and preservation movement, the Friends of Our Native Landscape advocated the use of native plants in naturalized settings and the preservation of existing native landscapes throughout Wisconsin and the Midwest. This aesthetic shaped many of the university's landscapes in the 1920s and 1930s. One of the most noteworthy applications was at the university's new arboretum, which was constructed in the 1930s as a celebration of Wisconsin's native landscape.

Rethinking the Pleasure Drive, Something Old is New Again

The Friends of Our Native Landscape may have influenced the future of Lakeshore Drive, the farm road constructed in 1870 along the southern shore of Lake Mendota. With the addition of dormitories along the lake in 1926, pedestrian traffic along the drive escalated and led to conflicts with automobiles. As a result, the university closed the road from Dairy Road (Babcock Drive) east to Charter Street to automobiles in the early 1930s. In 1937, archaeologist and historian Charles E. Brown proposed to Aust the treatment of the path as a natural landscape preserve.¹⁴⁴ Aust agreed, and after discussing it with the Friends of Our Native Landscape, proposed the creation of a preserve program for the Madison lakes region as well as other communities.¹⁴⁵

Over the next 40 years, automobile access was eliminated from the entire drive, and the route became a path for pedestrians and cyclists. Now known as the Howard Temin Lakeshore Path, the route has assumed its own cultural landscape identity within the larger context of the university's Lakeshore Nature Preserve.

Marlatt Rock Garden and the Aust Rock Garden

Aust wrote numerous articles on landscape aesthetics and gardening in the 1920s and 1930s, many expressing his interest in naturalized rock gardens.¹⁴⁶ His detailed descriptions of how to develop a proper rock garden ranged from the aesthetic placement of rocks to the correct palette of plants that should be incorporated into the garden. Two gardens constructed on campus in the late 1920s and early 1930s express his philosophy: the rock garden east of Agricultural Hall, known today as the Aust Rock Garden (figures 70-76), and the Marlatt Rock Garden (figures 77-84) on the front lawn of Nicholas Hall.

In the 1920s, the field of home economics, like other agricultural disciplines, was looking to science for validation. In 1924 Vassar College began a course of study called "Euthenics," defined as the science of better living, based on the Greek word meaning

¹⁴⁴ Charles E. Brown correspondence with Franz Aust, July 2, 1937, from the Franz Aust Papers, Wisconsin Historical Society Archives.

¹⁴⁵ Franz Aust correspondence with Charles E. Brown, June 18, 1938, from the Franz Aust Papers, Wisconsin Historical Society Archives.

¹⁴⁶ Aust's Papers, at the Wisconsin Historical Society, provide a rich source of publications and articles by Aust.

“the science which studies the growth and change of human well-being through improvement of living conditions.” The University of Wisconsin adopted the term for its Home Economics Club and for a prominent historic oak that bordered Linden Drive.

The saving of the “Euthenics Oak” marked a watershed moment in ecological conservation on the campus. After the construction of the Home Economics building in 1913, the oak was designated for removal. A 1931 article in the *Wisconsin Country Magazine* recounted the resulting outcry: “The oak had become a part of the landscape and people who frequented this spot had acquired a feeling of affection for the tree and did not want it removed. A plea made to salvage the beautiful oak was finally agreed to.”¹⁴⁷ Dean Russell determined that such a prominent tree deserved a name, and so the “Euthenics Oak” was born. Franz Aust replaced the makeshift grade divider between the oak and the building with a rock wall. A naturalized planting of native species, including spring ephemerals, was designed as a landscape student thesis project.¹⁴⁸

Soon after the garden was constructed, however, the famous oak succumbed to honey mushroom fungus, and was cut down in 1932:

The Euthenics Oak is dead. It was like one of our own number had passed away when we returned to our work after the holidays to find that one of our most familiar landmarks was missing. How often we have passed this grand oak, sometimes pausing to marvel at its gnarled and spreading branches.¹⁴⁹

A mature replacement oak was planted and still stands today amidst the garden created for its predecessor.

The Lotus Bed on University Bay

The impressive Russell Laboratories on the Wisconsin campus do lasting honor to an outstanding man. But in the Lotus Beds of University Bay that man unintentionally established his own more intimate memorial.¹⁵⁰

While the celebration of the natural landscape was a significant aesthetic in the 1920s and 1930s at the university, ornamental gardening also influenced physical form. Aust was the conduit for most garden development on the campus, including an interesting planting in University Bay in the 1920s. Dean Russell, intrigued by lotus beds blooming in Janesville, Wisconsin, asked Aust to supervise the planting of a lotus bed in Lake

¹⁴⁷ Elsie Onrud, “The Euthenics Oak: This Campus Landmark Has Its Story,” *Wisconsin Country Magazine* (June 1931): 12.

¹⁴⁸ *Ibid.*

¹⁴⁹ “Euthenics Oak,” *Wisconsin Country Magazine* (January 1933), 8. Also see “Honey Mushroom Fungus Attacks Oak,” *Wisconsin Country Magazine*, (October 1932), 10.

¹⁵⁰ Janet Schlatter from an article in the *Capital Times*, 3 July 1964; see also Robert E. Gard, *University Madison-USA*. (Madison: Strauss Printing, 1970), 256.

Mendota; an elaborate research project began to explore the hardiness of various aquatic plantings in the bay (figure 16).¹⁵¹

Clyde Terrell, “a specialist on development of attractive places for birds, game, and fish,” wrote to Aust of his desire to donate various seeds and plants to the new aquatic garden. He also enclosed a sketch (figure 17):

...indicating by colors where I would plant different varieties of aquatic and ornamental plants, which would make the pool and shoreline more beautiful with different kinds of flowers and odd plants from early spring until late fall, and which would also give you a good representation of the different kinds of plants furnishing foods for fish and wild waterfowl.¹⁵²

How much of Terrell’s proposal was installed is unknown. We do know that lotus flowers were successfully propagated from stock provided by the Janesville plants and that they remain to this day, blooming in the bay.



Figure 16: Lotus bed on University Bay, circa 1920s.

¹⁵¹ Andrew Hopkins “How the University Got Its Lotus Bed,” August 1962. See Andrew Hopkins Papers, Wisconsin Historical Society.

¹⁵² Letter from Clyde Terrell to Franz Aust, 14 February 1927, in Franz Aust Papers, Wisconsin Historical Society Archives.

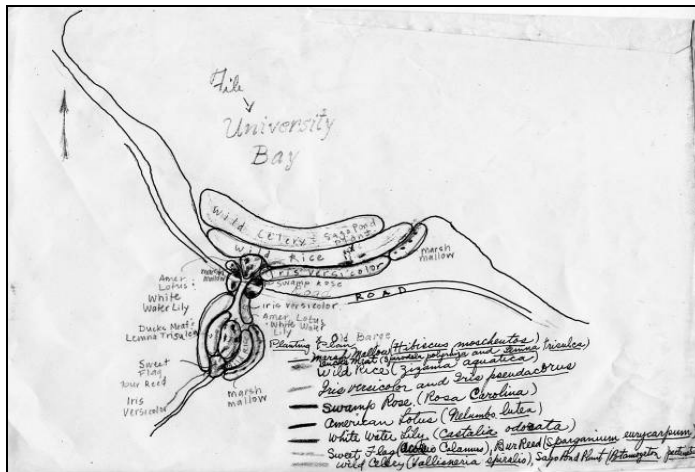


Figure 17: Aquatic planting plan, by C. Terrell, 1927.

The Pharmaceutical Garden

While an appreciation for natural aesthetics prompted the creation of many campus gardens, first on land near Camp Randall and then on University Bay, a medicinal garden was also installed on university land. Initially under the direction of Dr. Edward Kremers, the university's director of pharmacy, and in collaboration with the U.S. Department of Agriculture, research was carried out on drugs derived from plants. This successful project led the state to pass a statute for the creation of a Pharmaceutical Experiment Station, a pharmacy department division responsible for the production, research, development, and supply of medicinal drugs for the improvement of health in the state. A medicinal plant garden was established, first at Camp Randall, and later near the intersection of Lake Mendota Drive and University Bay Drive. The station conducted research on the plant drugs developed in the pharmacy department laboratories. The station also distributed its products, which were generally of better quality than those available through other channels, to pharmacists and physicians throughout the state. The pharmaceutical garden research effort ended in 1933, when further state funding was denied.¹⁵³

4-H Club Knoll

Ceremonial and memorial gardens were also important landscape features on the agricultural campus through the 1930s. On the western edge of Observatory Hill, 4-H Club Knoll (figures 107-110) became a gathering spot during the annual 4-H State Club Week. Each year, beginning in 1929, club members would convene at the knoll for a ceremony inspired by the Native American tradition of commemorative landscapes.¹⁵⁴ 4-H Club directors Wakelin McNeal and Thomas Bewick initiated the annual ceremony

¹⁵³ Department of Pharmacy website, University of Wisconsin-Madison: <http://www.pharmacy.wisc.edu/>.

¹⁵⁴ Marjorie L. Gleason and William E. Gleason. *The Father of Wisconsin 4-H: The Ransom Asa Moore Story* (Battle Lake, Minnesota : Accurate Publishing and Printing Inc., 1989).

and received official designation of the knoll by the regents in 1930. In the 1929 ceremony a red pine (sometimes called Norway pine) was planted.¹⁵⁵

A beautiful Norway pine was planted Sunday morning on the campus of the college of agriculture by the boys and girls as the first of a group that will stand in token of the future strength of the farm youth movement. A tree will be added each year during the summer encampment of junior farm leaders. A good bye pow-wow will be held Tuesday morning after which clubbers will hit the trails that lead back to the big wig-wams with running water and electric lights that decorate the countryside of Wisconsin.¹⁵⁶

In 1930, a granite site marker (a boulder brought from Oregon, Wisconsin), was installed to commemorate the official name designation.

Most of the trees planted on the knoll were evergreens. The first Norway pine was followed by annual plantings of white spruce (1930), Douglas fir (1931), Canaerti juniper [*Juniperus virginiana* ‘Canaerti’] (1934), and Scotch pine (1938). Many were dedicated to prominent individuals. One Douglas fir was dedicated to George Washington in 1932. A Scotch pine was dedicated to John Muir in 1938 in conjunction with a university-wide celebration of Muir’s legacy. In 1941, a sugar maple was dedicated to Ransom Moore, the founder of the agronomy department and the “father of 4-H” in Wisconsin, following his death earlier that same year. Laurence Graber, head of agronomy, presided over the event.¹⁵⁷ After World War II, the donation of significant acreage near Baraboo to the state’s 4-H organization and to the university changed the significance of the 4-H Knoll as well as the 4-H experience on the campus. No records of tree planting ceremonies exist after the 1941 ceremony, although the knoll and Observatory Hill continued to figure in 4-H week festivities for a few decades thereafter.

Babcock Memorial Garden

The Babcock Memorial Garden (figures 56-65) was an aesthetic pleasure garden dedicated to scientist Stephen Babcock after his death in 1932. Hollyhocks, Babcock’s favorite flower, were an important design element that became closely identified with him. Babcock had admired the hollyhocks blooming in the yard of fellow professor James Halpin, who had exchanged seeds with Babcock.¹⁵⁸

After Babcock’s death in 1933, 44 states proposed the construction of hollyhock gardens in his memory. Many of his former students, employed at universities throughout the country, oversaw the installation of these gardens. Even the University of Goettingen in

¹⁵⁵“The 4-H club Knoll,” *The Wisconsin Country Magazine*, June 1934, 11 and

“More Campus History-The 4-H Knoll,” *The Wisconsin Country Magazine*, May 1940, 13.

¹⁵⁶ “Indian Pageant is 4-H Feature” *Wisconsin State Journal*, June 24, 1929, 2.

¹⁵⁷ Gleason and Gleason. *The Father of Wisconsin 4-H: The Ransom Asa Moore Story*.

¹⁵⁸ Robert E. Gard, *University Madison-USA*, 66.

Germany, where Babcock completed his graduate training, and Tufts College in Boston, where he spent his undergraduate days, planted a Babcock garden in his memory.¹⁵⁹

In the early 1930s, the University of Wisconsin planted its own memorial garden:

The University planted a Babcock memorial garden which is one of Madison's beauty spots, located on the College of Agriculture campus about 100 feet from Linden drive near the Babcock and Henry Oaks, practically on the front lawn of the dairy building. Flowers and shrubs and the immortal hollyhocks brought from the backyard of the Babcock home on Lake Street bloom lovingly in this secluded garden of sentiment and memory.¹⁶⁰

Designed by Aust and landscape architecture professor G.W. Longenecker, the garden became a place of solitude and reflection for many. Visually cut off from the landscape around it by dense shrub screening, the garden provided the agricultural campus with a fitting memorial to one of its most revered figures.¹⁶¹

Another Historic Era Ends

Like the previous era, conflicts over land use characterized the period 1907-1930, though of a different type than Henry had faced from 1880-1907. While Henry struggled to balance beauty with research, Russell found his agricultural campus pitted against recreation, basic science, transportation, natural areas, and housing on an ever-diminishing western landscape. The trend toward increased agricultural diversification and specialization in the disciplines continued in the 1930s. Dean Russell left his post in 1932 to take over as the director of the new WARF organization. A friend and admirer of landscape designer Jens Jensen, Russell was the last dean to have any significant aesthetic vision for the agricultural campus landscape. His successors were more concerned with the function and development of facilities on the agricultural campus.¹⁶² By the end of the 1930s, Henry's agrarian landscape was at an ominous crossroads as a new world order based on modernism, science, and technology emerged, with little appreciation for the pastoral character, vernacular barns, and romantic buildings of the past.

¹⁵⁹ H.M. Egstad, ed. "44 States Plant Babcock Memorial Gardens." *Wisconsin Alumni Magazine* 33:5 (February 1932): 151.

¹⁶⁰ Jeanne D. Lamoreaux, ed., "Among Ourselves," *Wisconsin Alumnus* 45:1, October 1943, 25.

¹⁶¹ Franz Aust, "Ostentation or a Sanctuary of Solitude," 464-65.

¹⁶² See Dean of Agriculture College Papers, University of Wisconsin-Madison Archives.

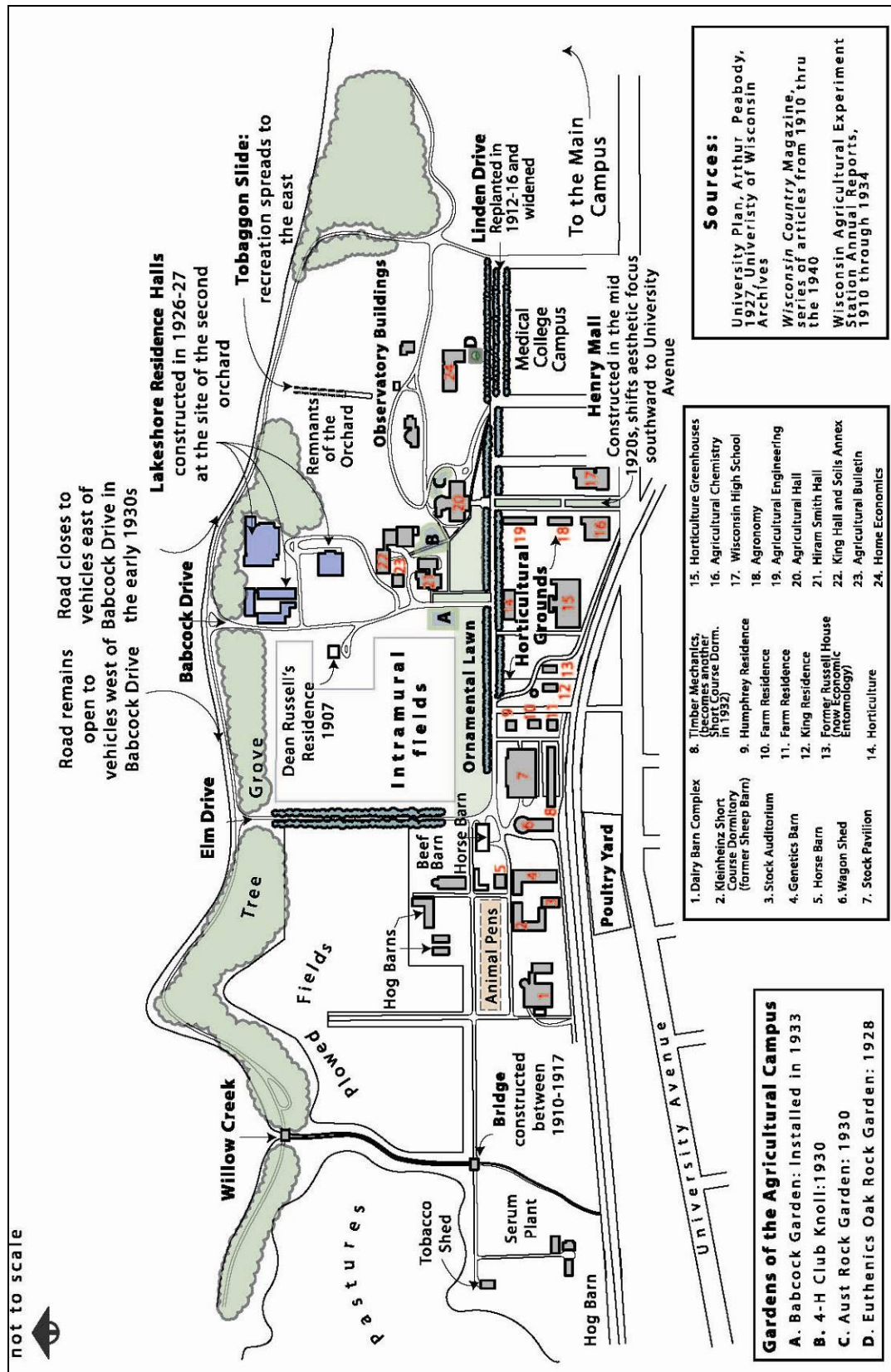


Figure 18: Period plan, agricultural campus, 1927-1932.

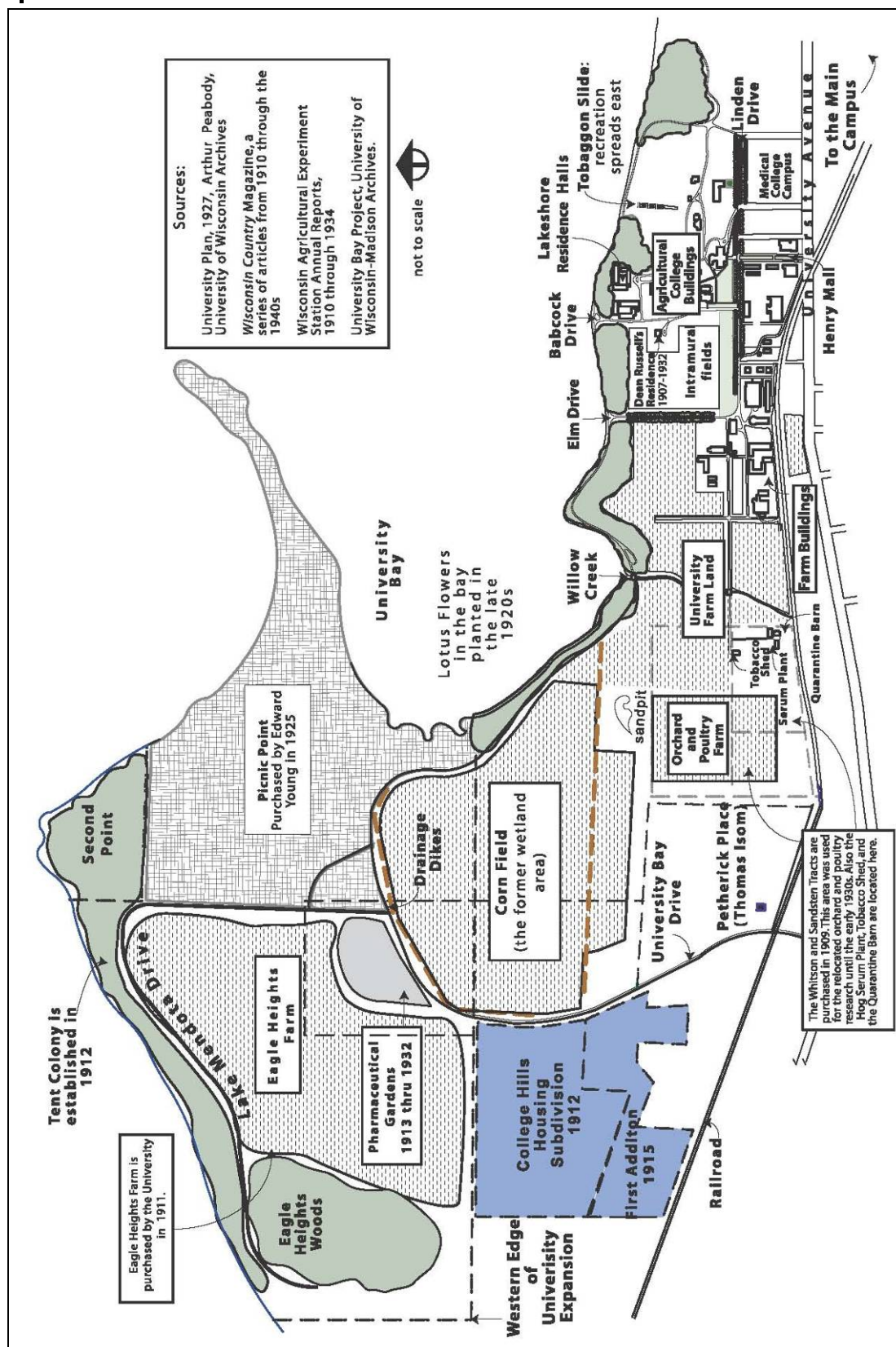


Figure 19: Period plan, agricultural campus and University Bay, 1920s.

Functionalism, Modernism and Campus Growth After World War II

The form of the agricultural campus continued to evolve as societal demands and new technologies changed. By the 1940s, the experimental farm had become a modern, specialized research entity, with only a few fields dedicated to the needs of Wisconsin farmers. The university's 1941 master plan pushed the agricultural campus still farther west. Many of the existing college buildings, including Hiram Smith Hall and King Hall, were scheduled for demolition to make way for new land uses. Agricultural Hall was not immune to change either, for it was to be converted into a general administration building for the university.¹⁶³ In contrast to the City Beautiful plan of Peabody, Laird and Cret, the 1941 proposal was a pragmatic land-use document. Transportation needs were prominent and the plan reconfigured numerous roads. However, World War II led the university to focus on the war effort, and many of these proposals were postponed or not implemented. The university's landscape remained in a holding pattern.¹⁶⁴

Post-War Changes

The romantic gardens of the 1930s would not fare well in this new era, as the war and its aftermath ushered in a dramatic shift in the aesthetics and function of the agricultural campus landscape. The campus literature of the 1930s and 1940s reflected this change. In the 1930s, the *Wisconsin Country Magazine* (a publication written by students from the College of Agriculture and Home Economics) was a rich source of campus landscape documentation. The magazine was filled with articles on the 4-H Knoll, the Euthenics oak, land-use changes, and parking issues. After the onset of the war, few accounts of ornamental gardens or landscapes appear. Instead, the magazine took on the more scientific and technical approach that would soon impose another layer of landscape aesthetics on the university.

With the end of the war in 1945, the pressures of non-academic land-uses, including automobile circulation and parking, dormitories, intramural facilities, and campus natural areas (now the Lakeshore Nature Preserve), only increased. These land-use needs, together with the demands for research and classroom space, took precedence over concern for the aesthetic landscape. Space constraints forced the placement of numerous temporary buildings on the lawn between Agricultural Hall and the horse barn. By the end of the 1940s, Dean Henry's "extended beautiful stretch of sward and shrubbery nearly half a mile in length" was the site of six temporary research buildings (figure 47).¹⁶⁵ When permanent building construction resumed, a modern architectural aesthetic was seen as reflecting progress on the agricultural campus.

¹⁶³ Wisconsin State Planning Board, *A Campus Development Plan for the University of Wisconsin*, Madison: Wisconsin State Planning Board, 1941.

¹⁶⁴ Ibid.

¹⁶⁵ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, Madison: University of Wisconsin Agricultural Experiment Station, 1905.

Changes in the Dairy School

Now, more than ever before, the campus of the University's College of Agriculture is the main spring of America's dairy industry. The UW's new Babcock hall opened this fall, and the \$2.5 million building ranks as one of the finest dairy teaching and research centers in the nation.

It is a far cry from Hiram Smith hall, the old dairy building erected in 1893, and stands in even greater contrast to the UW's first laboratory, constructed in an old residence by Stephen Moulton Babcock, after whom Babcock hall is named.¹⁶⁶

Although Hiram Smith Hall, was not razed as the 1941 master plan had proposed, the dairy school obviously had outgrown its original building. For much of the 1940s the dairy science department had lobbied for a new facility. Their efforts culminated in the opening of a new dairy building, Babcock Hall, in 1951 at the corner of Babcock and Linden Drives. A sign of progress and technological advancement, the building's construction, both symbolically and physically, initiated a new landscape of modern laboratories that soon proliferated over the agricultural campus.¹⁶⁷

The 1941 master plan also proposed the straightening of Babcock Drive. Formerly the Dairy Road, Babcock Drive had historically meandered north to the lake, with three distinct sections. Officially realigned in 1952—with the section of road intersecting with the lakeshore path creating a straight line south, past the Horticulture building—the new road influenced the future locations of E.B. Fred Hall (1955) and the Plant Sciences building (1983) at the corner of Linden and Babcock Drives. The new road, Babcock Drive, ignored historic landscape context completely and demolished three historic landscape features in the process: 1) Babcock Memorial Garden, just west of Hiram Smith Hall, was displaced from its original location and reinstalled in a less grandiose setting on the east side of the newly constructed Babcock Hall; 2) the Horticultural Gardens, to the west of the Horticulture building, a remnant of the Peabody, Laird and Cret plan, were truncated; and 3) two memorial oaks, planted in honor of deans Henry and Russell, were removed.

¹⁶⁶ Tom Jamieson. "America's leading Dairy State Gets America's Finest Dairy Center...Babcock Hall." *Wisconsin Country Magazine*, March 1950, 14-15.

¹⁶⁷ Ibid.

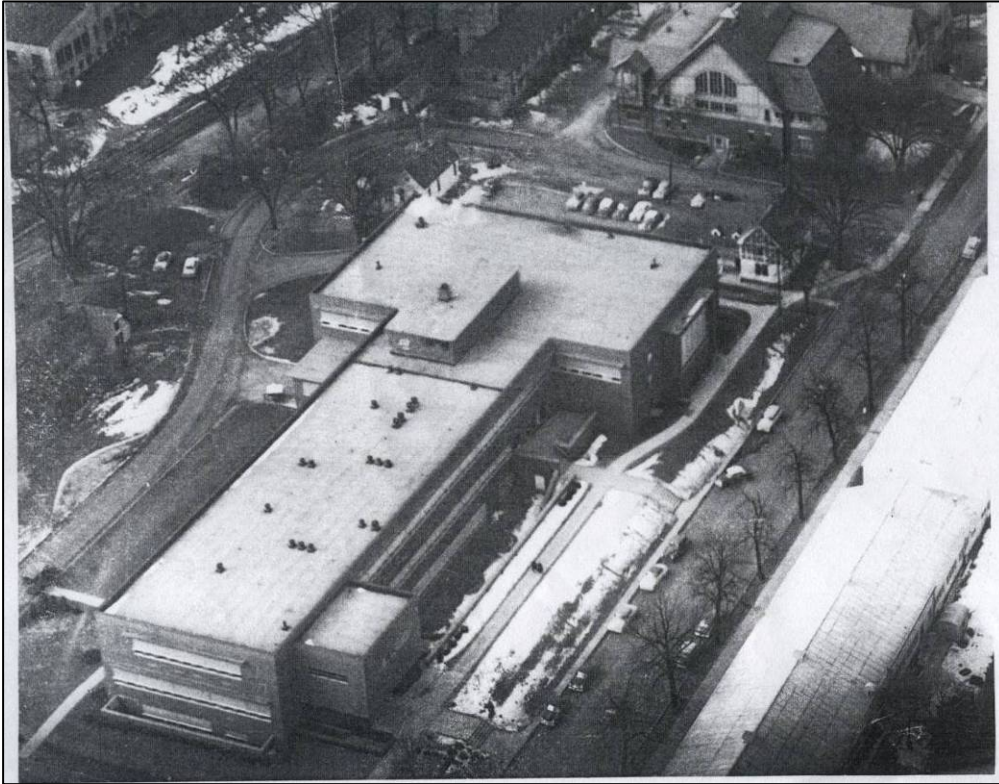


Figure 20: Babcock Hall and adjacent buildings, 1951. The curving Farm Place road and the King residence can be seen to the left of the new building. The old farm superintendent's house, another farm residence, the Stock Pavilion and the temporary Short Course dormitory are at the top of the photo.

In 1955, with the construction of b and the realignment of Babcock Drive, the central core of the agricultural campus was now defined by mid-twentieth century parameters. The wide expanse of lawn connecting Agricultural Hall and the horse barn had already lost its visual impact with the intrusion of the numerous temporary buildings erected after the war. The City Beautiful directives of the Peabody, Laird and Cret plan were, for the first time, no longer used in planning decisions at the university. Instead, the modern functionalism of the 1941 plan, which glorified the individual building, dominated the landscape. The location of bacteriology building (later re-named E.B. Fred Hall), in particular, ignored the ordered, consistent setback on the northern side of Linden Drive that Peabody, Laird and Cret had proscribed. Placed closer to Linden Drive, bacteriology building permanently obstructed the view to the west from Agricultural Hall. An article in the *Wisconsin Country Magazine* in 1957, lauded the perceived progress the (nicknamed) “Bacty” building symbolized: “I see they are working on landscaping the area where T-15 (temporary building) stood. At least now you can see and appreciate the beauty of the Bacty Building.”¹⁶⁸

Campus architect Gordon Orr noted the building’s significance as the first laboratory erected in a modern architectural style, but made no mention of the significant landscape

¹⁶⁸ “Campus Ramblings,” *Wisconsin Country Magazine*, April 1957, 11.

change the bacteriology building inaugurated.¹⁶⁹ The building was faced with red brick, however, consistent with the Peabody, Laird and Cret plan, yet no grand vision for a cohesive landscape context remained. This new precedent continued as numerous red brick, modern laboratories soon proliferated throughout the agricultural campus, including the Russell Laboratories in 1965 and the Animal Science building in 1972, both placed on Henry's lawn. With their constructions, both the historic significance and visual impact of the dramatic vista between Agricultural Hall and the horse barn were permanently lost. Any perceived separation between the College of Agriculture and its farm was blurred beyond distinction as the college simply overwhelmed the farm.

Student Residential Use

An influx of financial support for the construction of student dormitories occurred in the 1940s, irrevocably altering land-use patterns throughout the residential area of the experimental farm and increasing the urbanization of the campus. Two new Short Course dormitories (Jorns and Humphrey Halls) were constructed along the Lake Mendota shoreline in 1949. Students would no longer have to sleep in the sheep barn.¹⁷⁰

The sheep barn was demolished in 1952, and the new Dairy Cattle Center was constructed on the site. The agricultural residential area on Farm Place changed even more with the realignment of Babcock Drive in the early 1950s, the construction of Babcock Hall in 1951, and the realignment of the railroad in the early 1960s. The first dairy school building, constructed in 1880 and moved to Farm Place in 1900, was torn down in 1949. The F.H. King house, where King's widow lived until her death, was removed in 1955. The first Short Course dormitory, south of the Stock Pavilion, was also torn down for parking in the early 1960s (figure 21). Still later, the Russell house, the former home of Aldo Leopold's wildlife management department, was razed in 1964.¹⁷¹

¹⁶⁹ Gordon Orr, et al, *Perspectives of a University, A Survey of Campus Architectural, Historical, Archaeological, and Memorial Resources and Recommendations for Preservation*, University of Wisconsin—Madison, Madison: University of Wisconsin, 1978.

¹⁷⁰ Dwight Johnson, ed., "How the Badgers got a Library...and other Buildings," *Wisconsin Alumnus*, October 1949, 5.

¹⁷¹ Feldman, *Buildings of the University of Wisconsin*, 1997.



Figure 21: Short Course dormitory, Prof. Robert Muckenhirn, circa 1958.

The construction of the Campus Drive extension, between 1969 and 1972, was the last circulation change to affect the residential area; it imposed the sounds, sights, and smells of a major circulation artery on this once pastoral landscape. Today the evocatively named Farm Place essentially functions as parking and service access for the Stock Pavilion and Babcock Hall. The only remaining residential structure is the former farm superintendent's house, originally constructed in 1868. It humbly sits between the 1909 Stock Pavilion of the City Beautiful era and the 1951 modernist Babcock Hall.

Agricultural Land Use, Recreation and the Preservation of Land

The College of Agriculture battled land-use conflicts on two fronts after World War II. Recreation and agriculture were at constant odds on the land that formed the original 1866 purchase. On University Bay, both the recreation advocates and biologists battled with the College of Agriculture over the future of the bay. In 1946, the battle culminated in an acrimonious agreement in which the original experimental farm acreage was divided between recreation and agriculture. In a detailed report to the committee formed to determine the future of the west side of the campus, the agricultural campus leaders argued that:

the College of Agriculture must have adequate areas of its own near the campus land as shown in this report, for necessary developments and expansions, if it is to continue to maintain the momentum of achievements and contributions to the welfare of the state and nation which have been so characteristic of its long

history as an integral part in the well being of the State and of the University itself.¹⁷²

After years of negotiations, a line centered on the yet-to-be constructed extension of Observatory Drive (west of Babcock Drive) became the official division between the opposing land uses in the late 1940s. The locations of the Natatorium, the oval for the Dan McClimon Track, and the Nielson Tennis Stadium all resulted from this agreement.¹⁷³ On University Bay, the preservation and restoration of the western campus as a natural preserve concerned biologists and naturalists. However, the development of the university's arboretum left the natural landscapes of the western campus in a nebulous holding pattern.¹⁷⁴ For many years, the area west of Walnut Street served as the battleground between recreation advocates, biologists, and the agriculture department, which all but eliminated agriculture from University Bay. Today, only a small agricultural presence remains. Housing, parking, campus natural areas (now the Lakeshore Nature Preserve), and the University Hospital have usurped the former agricultural land on the far western campus.



Figure 22: View toward Lake Mendota from the experimental farm, 1927. The battle over land use between agriculture and intramural sports on the western campus was ongoing for much of the first half of the twentieth century.

¹⁷² Letter from university agricultural leaders to Agricultural Dean Ira Baldwin regarding the land-use needs of agriculture at the university. University of Wisconsin Arboretum , University Bay folder.

¹⁷³ Ibid.

¹⁷⁴ Richard E. McCabe, *A Niche in Time*, 1973, unpublished book on the environmental and cultural history of University Bay; see the University Bay Collection, , University of Wisconsin-Madison Archives.

The Loss of the Farm

The University Hill farm contracted and finally disappeared altogether to make way for real estate developments; the animals so long used for research on the agriculture campus, were moved to Arlington, thirty miles north. No longer would the bawling of cows, the steady bleating of sheep and the neighing of horses adds a bucolic touch to the west end of campus.¹⁷⁵

In the late 1890s the university purchased Hill Farms for agricultural research, as the land needs of the university and the land needs of agricultural research exposed the outward limitations of the original 1866 farm purchase. In 1955, Hill Farms experienced a somewhat similar fate, but instead of general university land use enveloping the farm, Hill Farms was lost to the City of Madison's burgeoning population. Hill Farms was sold for residential development, providing the university with \$4,000,000 from the sale. To offset the loss, the university purchased 5,000 acres of "fertile sloping prairie soil," twenty miles north of Madison near the town of Arlington.¹⁷⁶ Today agricultural research is farther removed from the original experimental farm than ever before. Along with the construction of E.B. Fred Hall in 1955, the purchase of the Arlington Farm marked the beginning of an era of intense building activity on campus and the end of the predominately pastoral character of the agricultural campus.

¹⁷⁵ Robert E. Gard, *University of Wisconsin U.S.A.* (Madison: Strauss Printing and Publishing, 1970), 2.

¹⁷⁶ Arthur Hove ed., "Hill Farms Sale Provides Funds for Research," *Wisconsin Alumnus*, May 1962, 25.

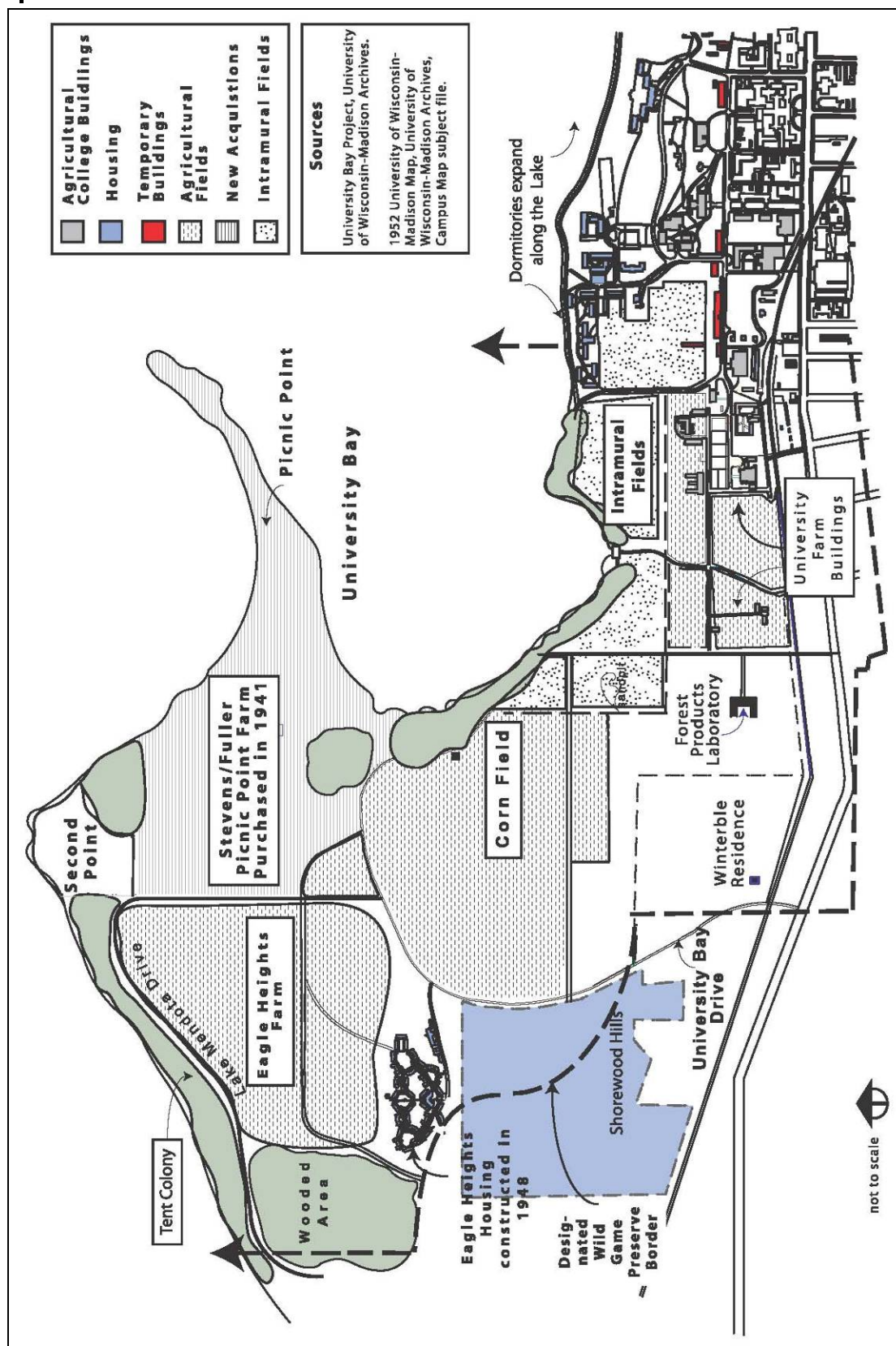


Figure 23: Period plan: agricultural campus and University Bay, 1940s.

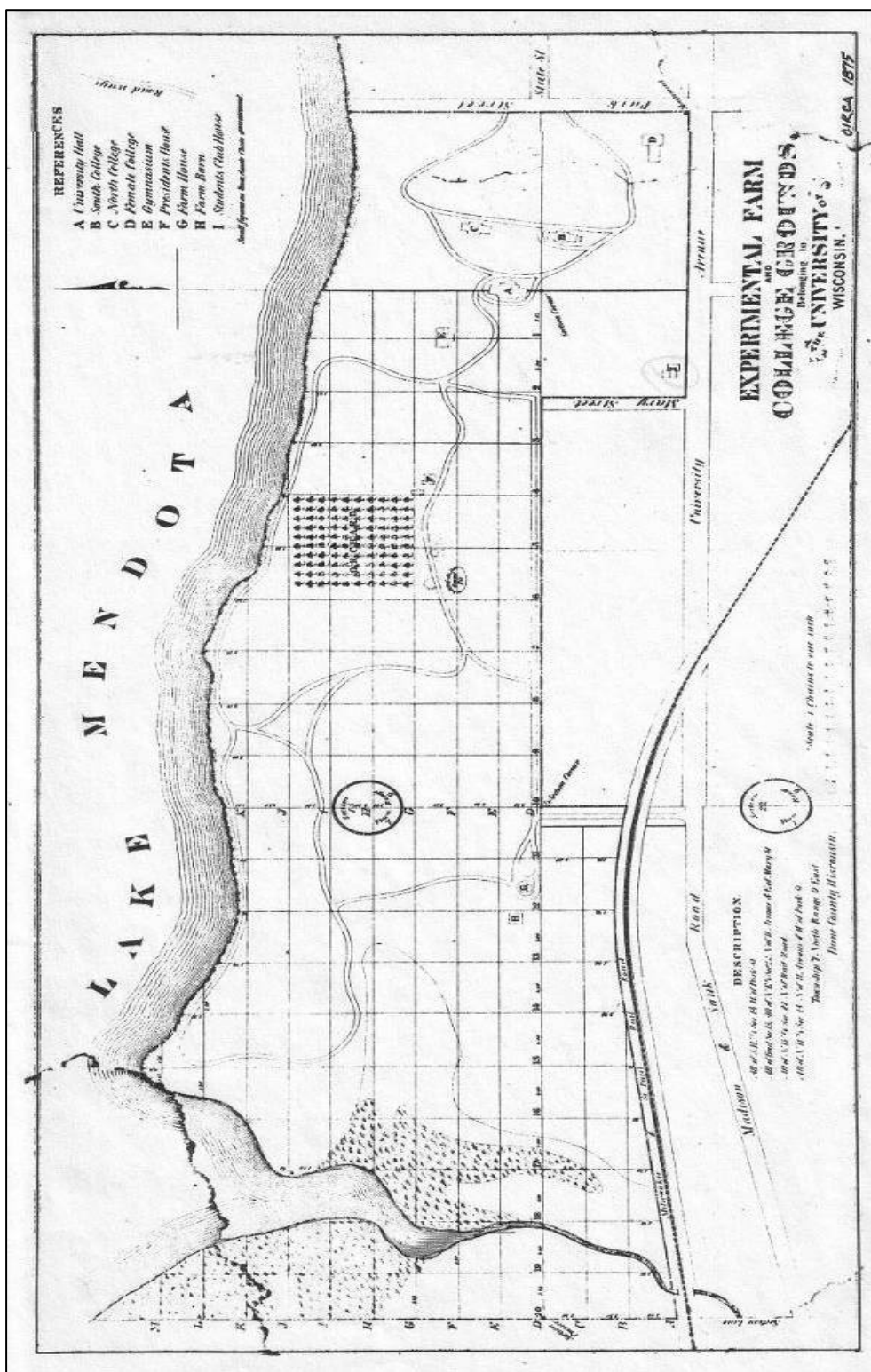


Figure 24: Map of Experimental Farm and College Grounds, circa 1870s.

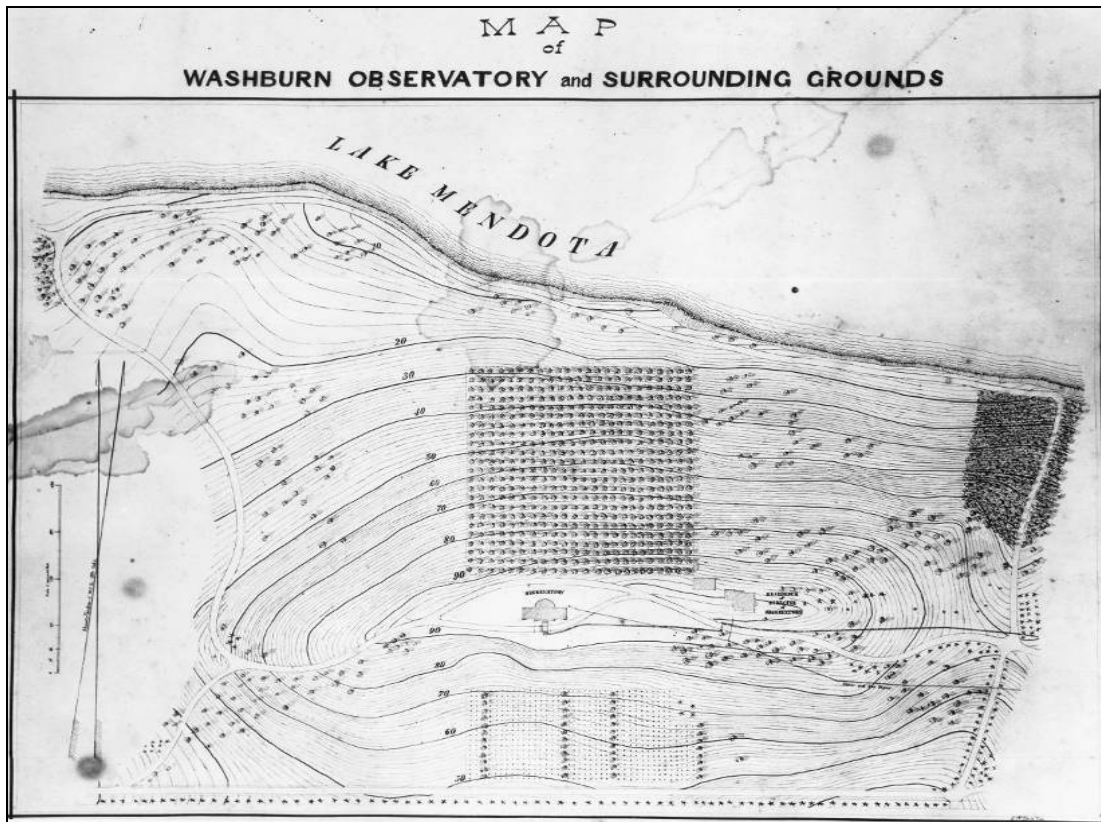


Figure 25: Map of Washburn Observatory and surrounding grounds, 1880. Early experimental farm activities are shown: the orchard to the north, the vineyard to the south, and a row of evergreens on the southern border of the farm.



Figure 26: View of the main barn and farm superintendent's house, 1894. The main barn was remodeled into the horse barn in 1899, and the farm superintendent's house was relocated to the east in the early 1900s.



Figure 27: View of the experimental farm circa 1898. The new Dairy Barn silo is visible in the upper left. The photo was taken prior to the renovation of the horse barn, the straightening of Linden Drive, and the move of the farm superintendent's house to Farm Place. The large tree in the left foreground open area is likely the original Euthenics oak.



Figure 28: Cornfield on the southern slope of Observatory Hill, circa 1880s.

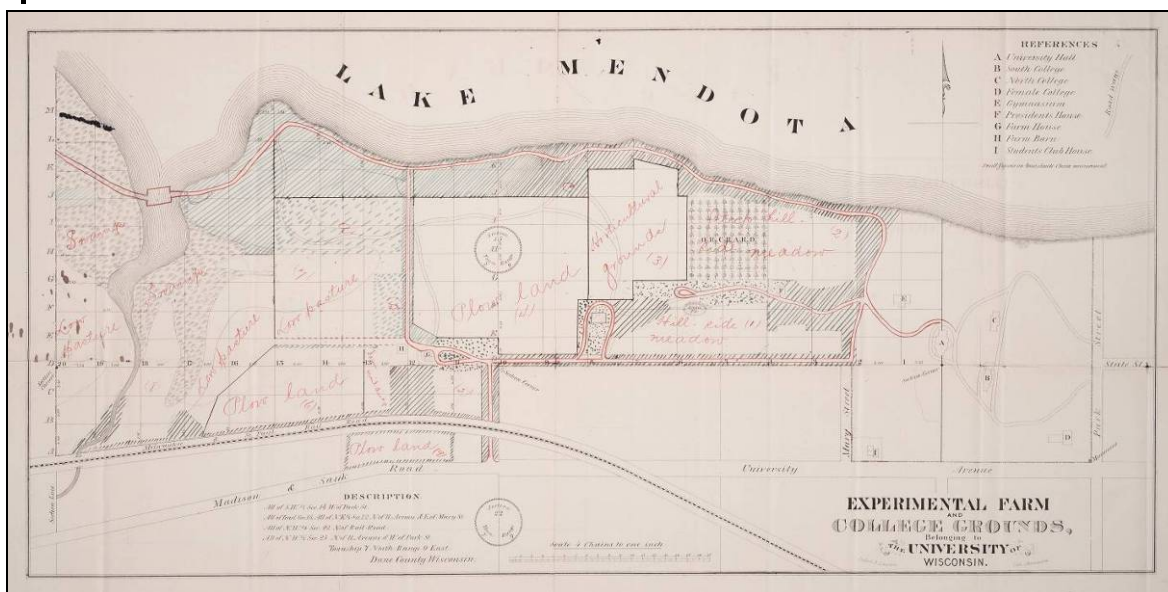


Figure 29: Map of Experimental Farm and College Grounds, circa 1870s. The ink notations on this map, attributed to College of Agriculture Dean William Henry, may have been added in the 1890s. The notations illustrate circulation and land use plans for the agricultural campus. The original (unmarked) 1870s map is shown in figure 24.

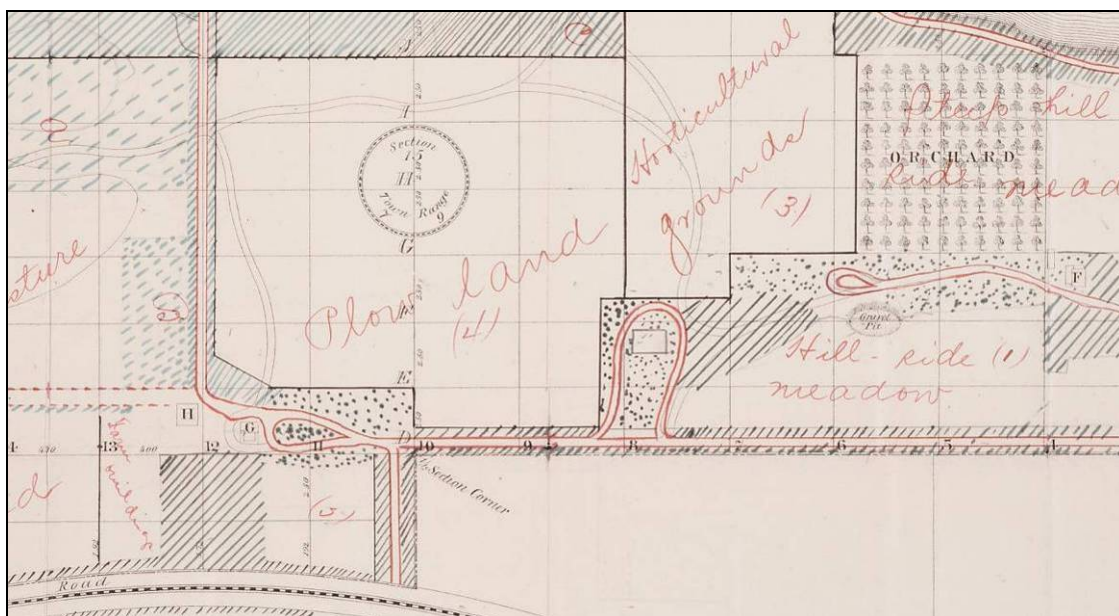


Figure 30: Detail of Experimental Farm and College Grounds, circa 1870s, with ink notations circa 1890s (see figure 29). Notations and road alignments represent plans and may or may not have been implemented.



Figure 31: The Agricultural Dean's Residence, circa 1896. Elm Drive runs left to right behind the residence.



Figure 32: View of agricultural experiment plots circa 1896. Photo taken from horse barn at corner of Elm and Linden Drives. Agricultural Dean's Residence and the newly completed Horticulture/Soils Building (King Hall), are visible in upper right corner.



Figure 33: Agricultural Hall, circa 1902. The building's Beaux Arts and City Beautiful features added a new aesthetic layer to the agricultural campus.



Figure 34: View of Agricultural Hall, with new landscaping, ca, 1904-1908.



Figure 35: View of the horse barn, circa 1900s. This landscaped area at the corner of Elm and Linden Drives is visible today, the last remnant of a sweeping lawn extending to Agricultural Hall.



Figure 36: View of the horse barn, summer, circa 1900s. Conifer specimen trees dot the lawn in the foreground, backed with a row of American elms lining Elm Drive.



Figure 37: View of conifer collection at corner of Linden and Elm Drives, circa 1904-15. Conifer specimen trees continue to be planted at this location for instructional use.

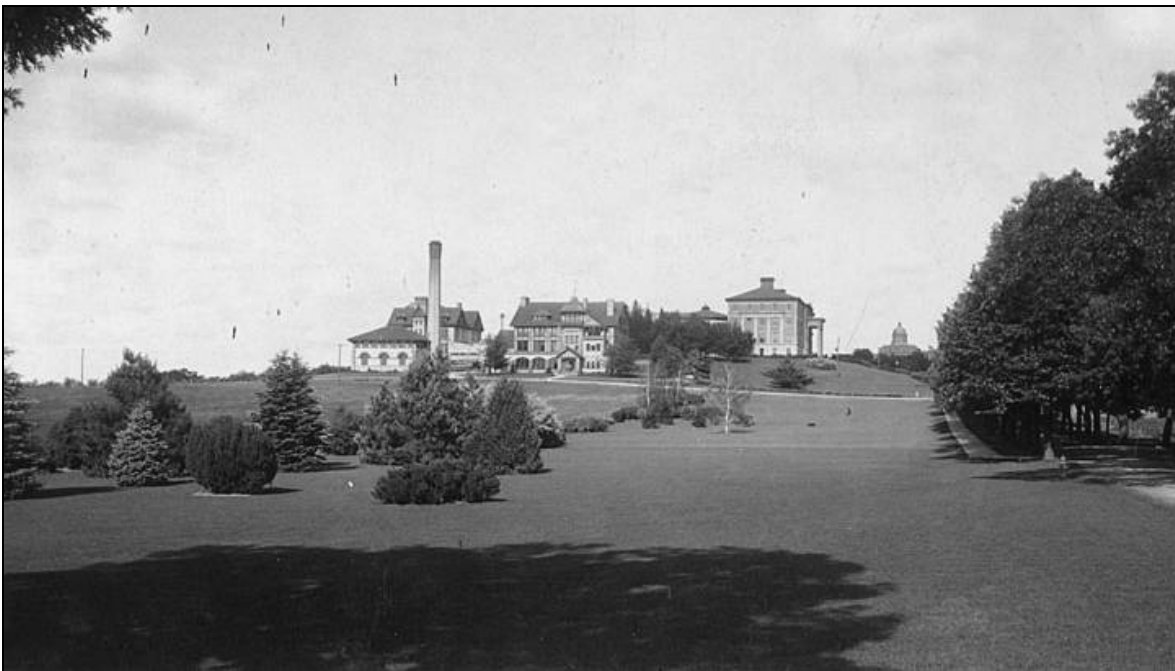


Figure 38: View lawn from corner of Linden and Elm Drives, circa 1904-15. Double row of linden trees visible at left.



Figure 39: View of lawn near corner of Linden and Elm Drives, circa 1916. The dome on Bascom Hall is no longer visible in this photo having been destroyed in a fire October 10, 1916 (compare with figures 37 and 38).



Figure 40: View of sheep grazing on the pastoral lawn near Agricultural Hall, circa 1910s. The flock was likely tended by university sheepherder Frank Kleinheinz.

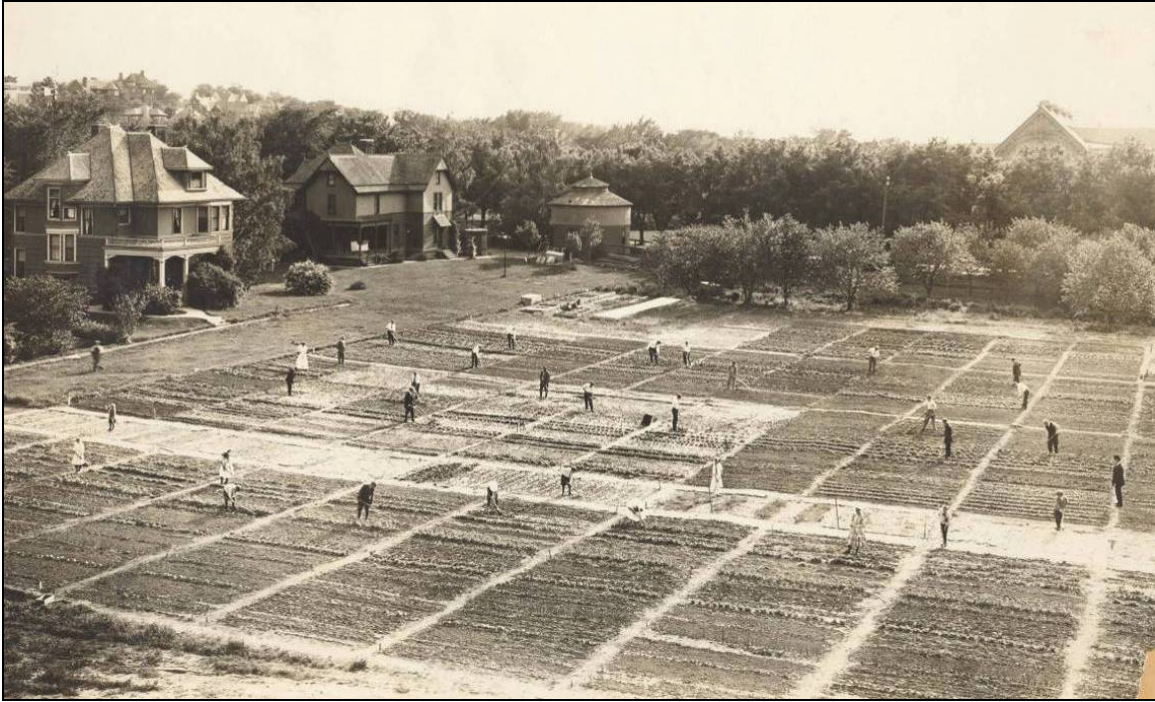


Figure 41: View of educational garden plots near Russell and King houses, 1912. The Stock Pavilion is in the upper right corner. Harry Russell's house is at the far left, adjacent to the F.H. King home and round silo.



Figure 42: Seed collection in agronomy department plot, circa 1920.



Figure 43: View east on Linden Drive, circa 1900s. Hiram Smith Hall is to the left.



Figure 44: View east on Linden Drive, circa 1904-1915. The Horticulture building is visible on the right.



Figure 45: View east on Linden Drive, circa 1904-1915. Notice a third row of young linden trees on the far right. In 1916 Linden Drive was widened and the middle row of trees was removed.

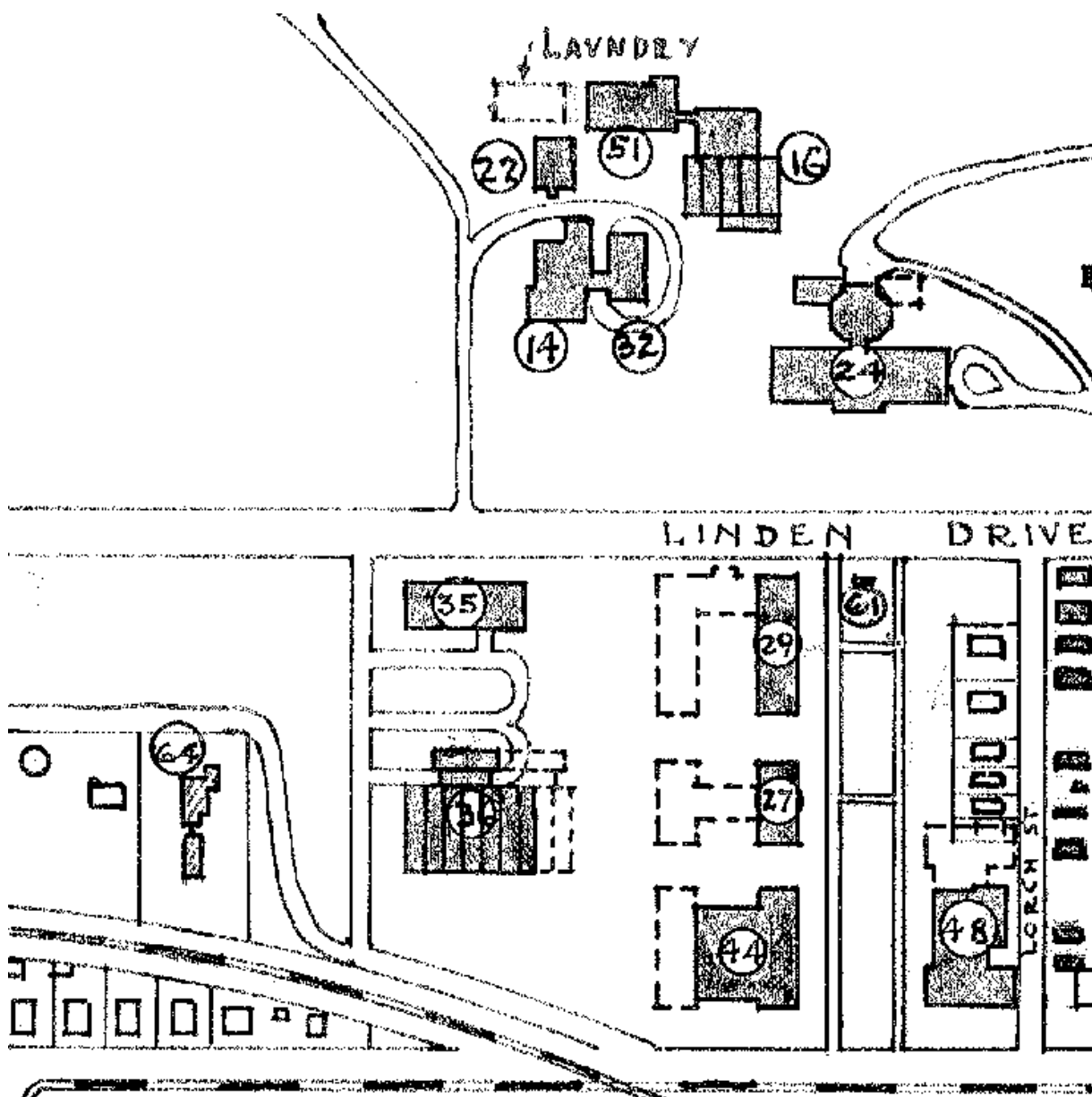


Figure 46: Detail from plat plan, 1918 (revised 1924). "Plat plan-East of Breeze Terrace-Arthur Peabody, state architect." Buildings shown: Russell House (64), Horticulture (36), Agricultural Chemistry (44), Wisconsin High School (48) Agronomy (27), Agricultural Engineering (29), Hoard Memorial (61), Agricultural Hall (24), Dairy Building (32), Dairy Laboratory (14), Dairy Machine Laboratory (22), Soils Physics (51), Soils Building and Greenhouses (16).



Figure 47: View of temporary buildings, circa 1948. Surplus military buildings were brought to campus following WW II to accommodate the influx of returning veterans. Babcock Drive (original alignment) separates the buildings under construction (background) from the completed buildings. Moore Hall is visible at left.



Figure 48: View of the intersection of Babcock Drive (re-aligned) and Linden Drive, circa 1962. In preparation for the construction of Russell Laboratories the temporary buildings were torn down.



Figure 49: View looking west on Linden Drive, toward horse barn, 2005. The Stock Pavilion is on the left. The adjacent silos are part of the Dairy Cattle Center, The conifers and the lilac bed on the right obscure the view of the horse barn.



Figure 50: View of the horse barn from the Stock Pavilion, 2005. Currently the horse barn is used for physical plant storage.



Figure 51: View looking southwest to the horse barn 2005. The lawn on the south side of the Animal Health and Biomedical Sciences building is the last remaining expanse of the dramatic green vista that once connected the horse barn with Agricultural Hall.



Figure 52: Frank Kleinheinz boulder and bur oak, 2005. In honor of the university's sheepherder, this marker was placed in 1930 in an area where sheep once grazed (see figure 40). The marker is located near the south entrance to Animal Health and Biomedical Sciences building.



Figure 53: A view of the horse barn from the west, 2005.



Figure 54: View of the Livestock Laboratory from the horse barn, 2005.



Figure 55: View of gardens south of the Horticulture building, circa 1930s. The Russell house is in the background.

Babcock Memorial Garden

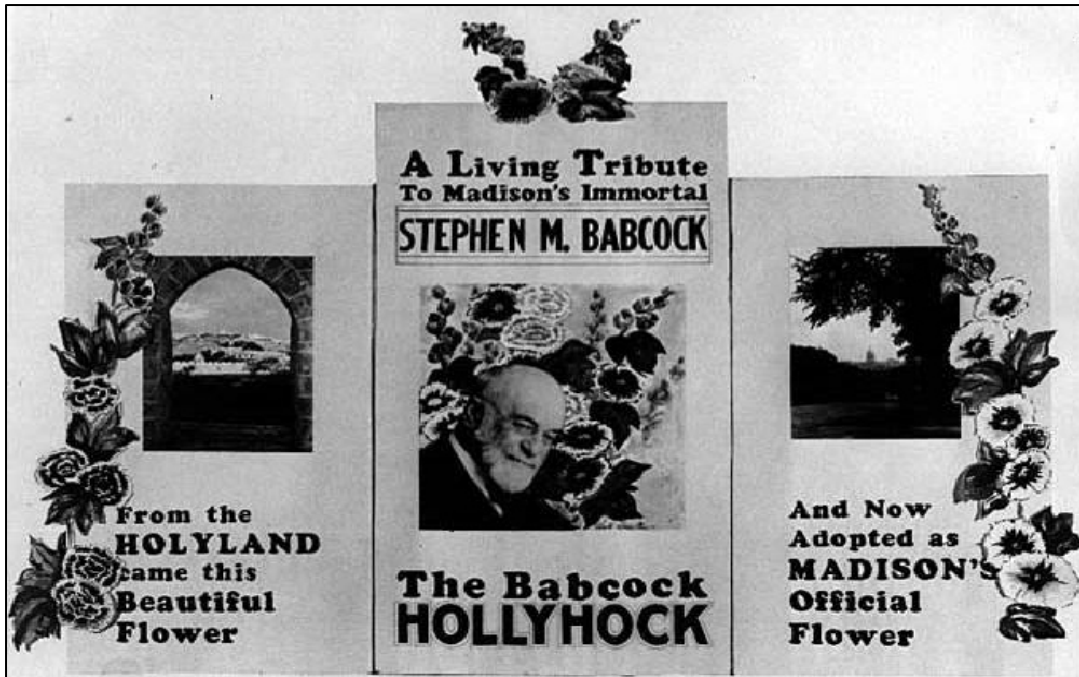


Figure 56: Babcock Hollyhock, Madison's official flower. The city of Madison declared the hollyhock as its official flower in tribute to Stephen Babcock's favorite flower.



Figure 57: Stephen Babcock in his hollyhock garden, circa 1930. The garden was at his home on North Lake Street.

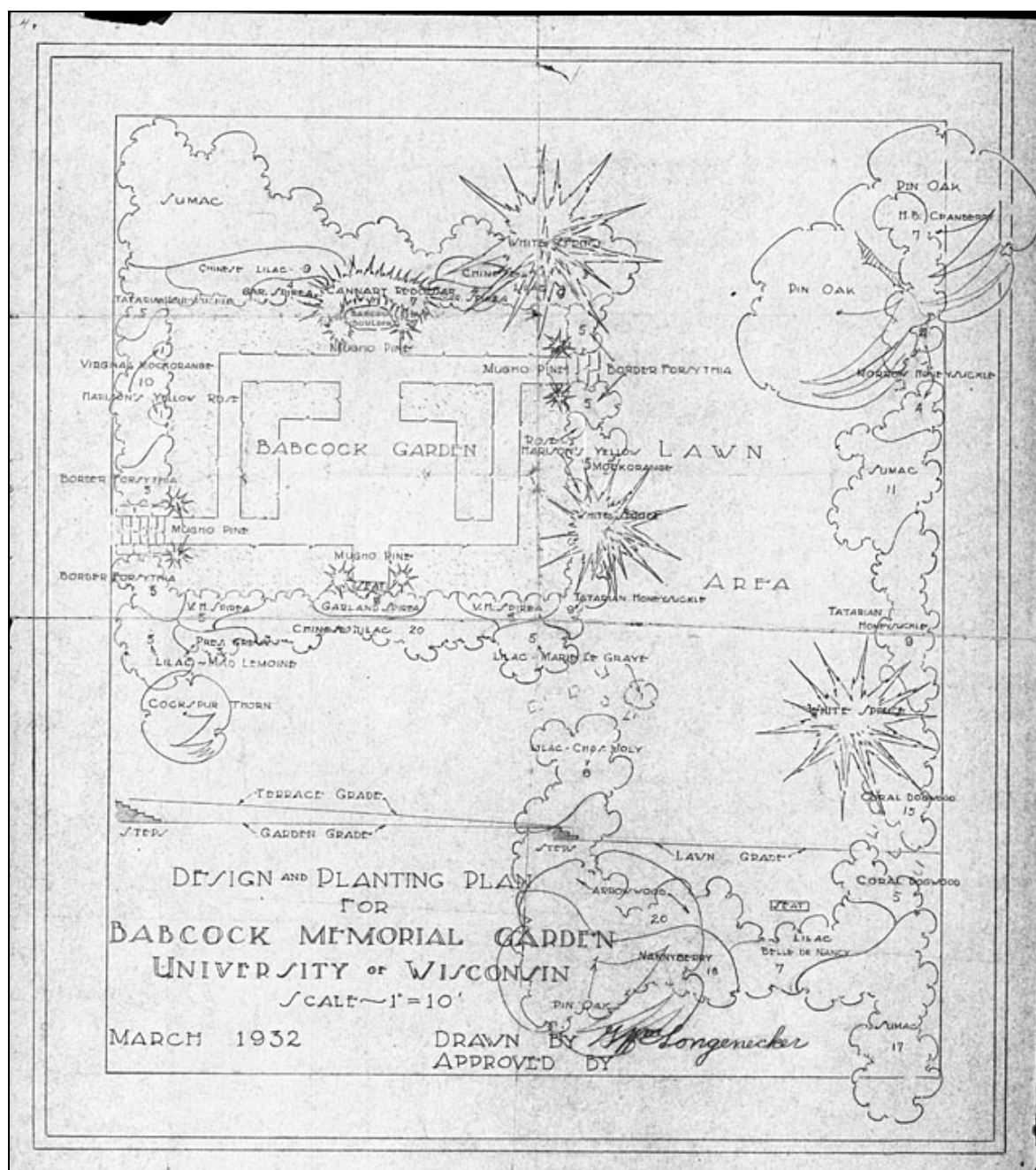


Figure 58: Plan for Babcock Memorial Garden by G.W. Longenecker, 1932.



Figure 59: The Babcock Memorial Garden at its original location, circa 1940s. Just above the stairs is the original location of Babcock Drive today.

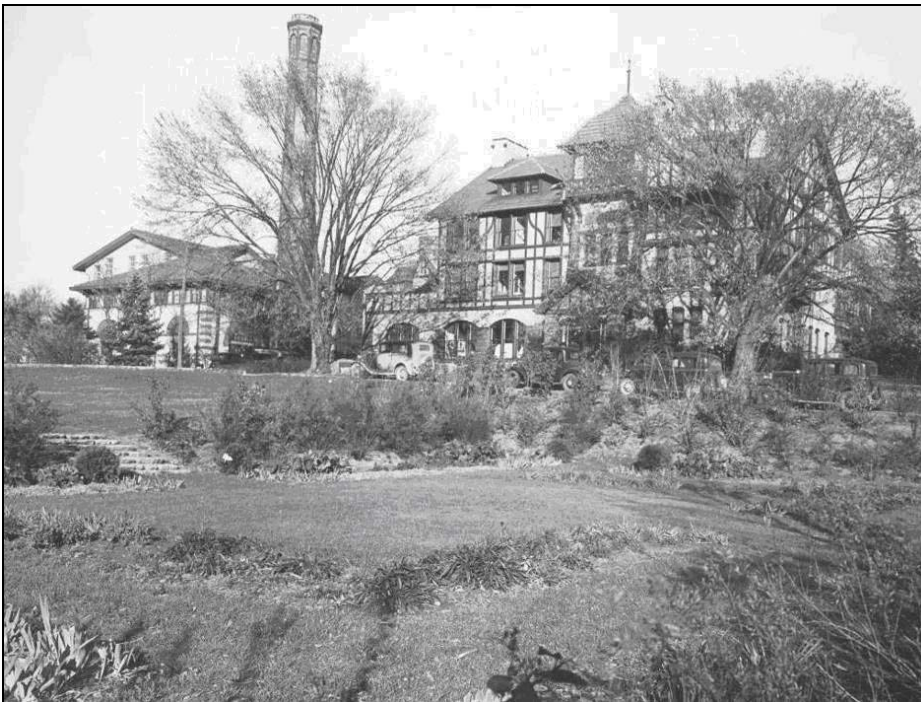


Figure 60: View of Babcock Memorial Garden, circa 1940s. Hiram Smith Hall is at the rear.





Figure 62: Babcock Memorial Garden bench, selected by Franz Aust, 2005. The garden was re-established in 1952 on the east side of Babcock Hall.



Figure 63: The Babcock Memorial Garden after its relocation in 1952-53.



Figure 64: Babcock Memorial Garden, 2005. The garden was truncated by the widening of Babcock Drive and the installation of retaining walls to the north.



Figure 65: View of southeast corner, Babcock Memorial Garden, 2005.



Figure 66: View of horticulture gardens and greenhouses, 1970. The Horticulture building and Moore Hall are at lower left. The greenhouses were replaced in 1996 with the construction of the Biochemistry Addition. The loss of the horticultural gardens (center of photo) resulted in more ornamental plantings on Henry Mall.



Figure 67: View from Babcock Memorial Garden toward Biochemistry Addition, 2005.

Aust Rock Garden



Figure 68: View of the eastern side of Agricultural Hall, circa 1903 The Aust Rock Garden would be installed on the eastern slope adjacent to the building in the early 1930s, after the eastern wing to the library was completed.



Figure 69: View of future Aust Rock Garden location, circa 1910s.



Figure 70: Construction of the Aust Rock Garden, 1929.



Figure 71: Construction of the Aust Rock Garden, 1929.



Figure 72: Aust Rock Garden, soon after construction, early 1930s.



Figure 73: Current condition of Aust Rock Garden, 2005. The steps today are in poor condition and it is difficult to discern their location between the naturalized rock outcroppings.



Figure 74: Current view of the Aust Rock Garden, 2005.



Figure 75: Aust Rock Garden overgrown with invasive species, 2005.



Figure 76: Detail view of the Aust Rock Garden, 2005. Despite the lack of maintenance, the structural integrity of the garden remains.

Abbey Marlatt Rock Garden and Euthenics Oak



Figure 77: View of future Marlatt Rock Garden, prior to 1915. The oak tree to the right would be given the name “Euthenics oak” to commemorate the student club of the same name.



Figure 78: View of the Marlatt Rock Garden, circa early 1930s.



Figure 79: View of Van Hise Hall construction site, 1965. The Marlatt Rock Garden is located at the western edge of the site.



Figure 80: View to the west on Linden Drive, 1978. The modern Van Hise Hall was superimposed on the City Beautiful inspired "Greater Mall."



Figure 81: View of the Euthenics oak from the intersection of Linden Drive and Charter Street, 2005. The oak retains a prominent profile. Van Hise Hall is to the right.



Figure 82: View of the Euthenics oak from Linden Drive, 2005.



Figure 83: Marlatt Rock Garden, 2005, While the Euthenics oak retains its focal point status in the garden, the ground plane has lost structural integrity because of the numerous weeds and hosta plantings.



Figure 84: Interior view of the Marlatt Rock Garden, 2005.

Hiram Smith/King Hall Cluster



Figure 85: Hiram Smith Hall, circa 1893 The landscape design consisted of terraced beds and wooden walkways. The concept of an evergreen grove behind the building continues today on the 4-H Knoll.



Figure 86: View of Hiram Smith/King Hall cluster circa 1910s.



Figure 87: Hiram Smith Hall circa 1910s. Originally constructed in 1890, two additions were made to the north side in 1901 and 1909.



Figure 88: View of Hiram Smith/King Hall cluster, circa 1910s.

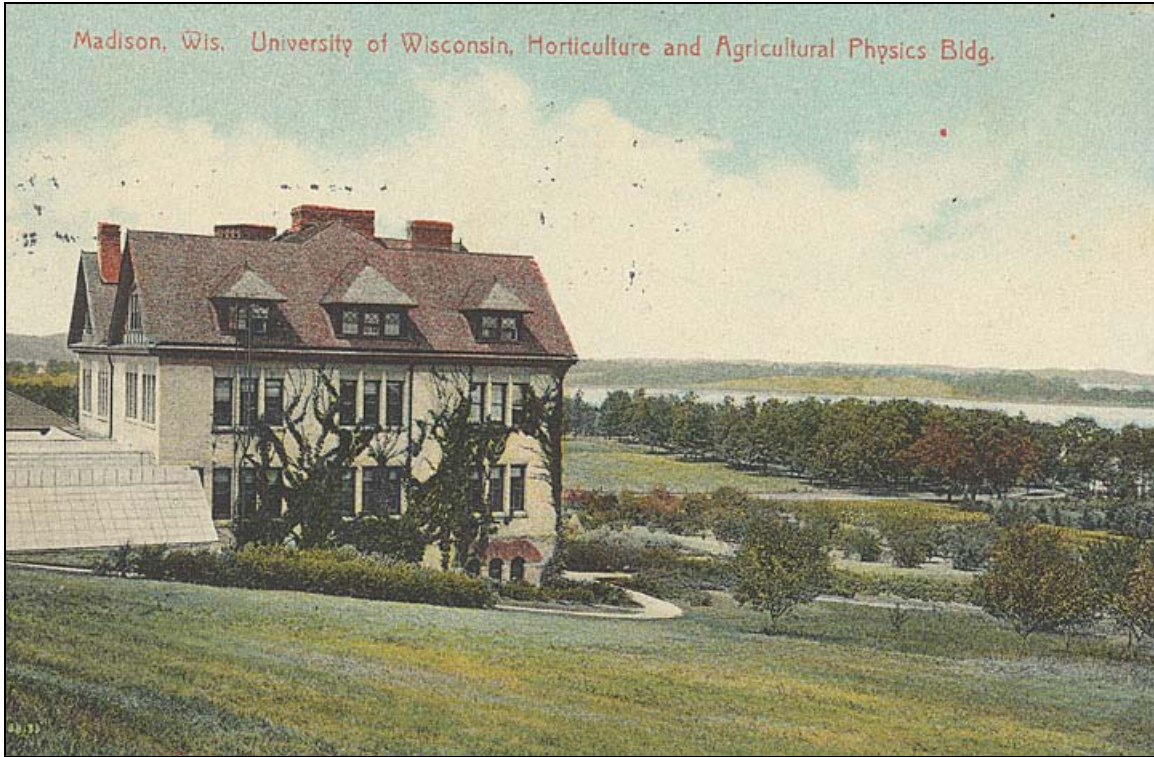


Figure 89: View of King Hall, circa 1890s. The main entrance to the building was oriented to the north, facing the horticultural fields, the orchard, and Lake Mendota.



Figure 90: View of the Hiram Smith/King Hall cluster looking east, circa 1909-14. Two windmills are visible on and adjacent to King Hall. Compare photo with figure 38, where windmills are not present, but landscape plantings are of a similar stature.



Figure 91: View Hiram Smith/King Hall cluster from the west 1912. The orchard and horticultural grounds are in the foreground.

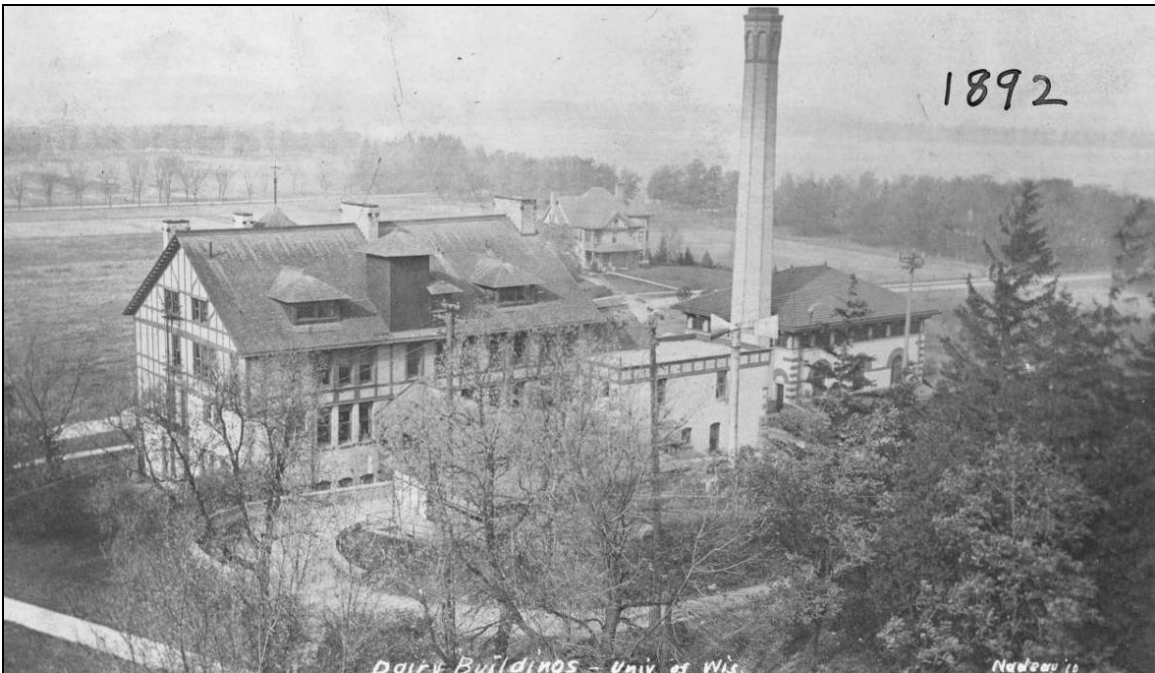


Figure 92: View of Hiram Smith Hall, circa 1910s. The two-story addition (1910) on the northeast corner of Hiram Smith Hall is visible. (The ink notation “1892” in the upper corner must refer to the completion date of Hiram Smith Hall, not the date of the photo.)



Figure 93: View of King Hall and Soils, circa 1915. The addition of the Soils building created a formal courtyard enclosure. The orchard and horticultural grounds, in the foreground, were the subject of much debate about their relocation at this time.



Figure 94: View of the Hiram Smith/King Halls courtyard area, circa 1915. The strong diagonal lines and central vegetative island emphasized pedestrian access, but there was, at this early date, ambiguity regarding future automobile and pedestrian land use.



Figure 95: View of the Hiram Smith/King Hall courtyard, circa 1930s.



Figure 96: View to Hiram Smith Hall from Linden Drive, circa 1910s, This perspective illustrates the visual importance of the building on Linden Drive, prior to the construction of E.B Fred Hall in 1955.



Figure 97: Aerial view of the agricultural campus, circa 1923. The influence of the Peabody, Laird and Cret plan is apparent with the symmetric placement of the Horticulture building on Dairy Road, the development of the Hiram Smith/King Hall courtyard, the formal horticultural gardens and the spatial building arrangement on the Lesser (Henry) Mall.

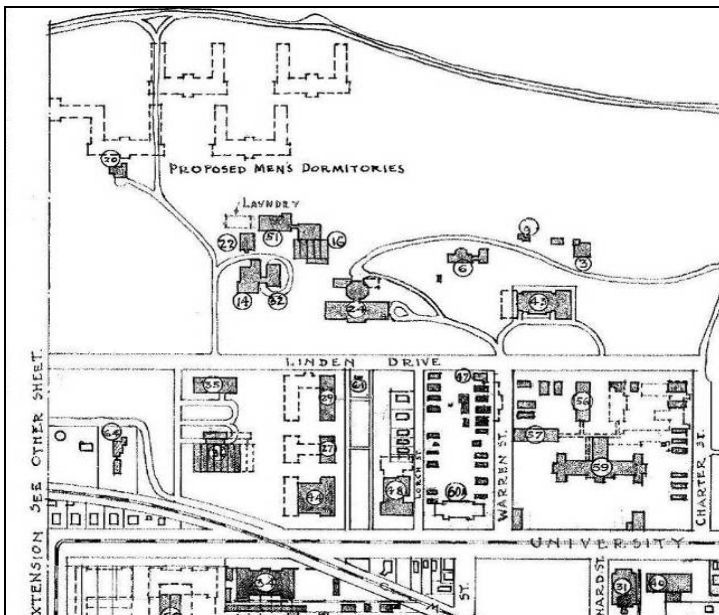


Figure 98: Detail of Arthur Peabody's Campus Plan, 1918. Note the vehicular circulation patterns and the proposed men's dormitories (Tripp/Adams Halls) to the north.



Figure 99: Aerial view, of agricultural campus and lakeshore dormitories, circa 1926. The dormitories were superimposed onto the existing farm landscape. Observatory Drive has yet to be realigned. The Hiram Smith/King Hall cluster still retained a physical connection to its surrounding orchard landscape.



Figure 100: Aerial view of Observatory Hill, 1957. When Observatory Drive was relocated to the north, it significantly changed the Hiram Smith/King Hall cluster's relationship to the orchard landscape.

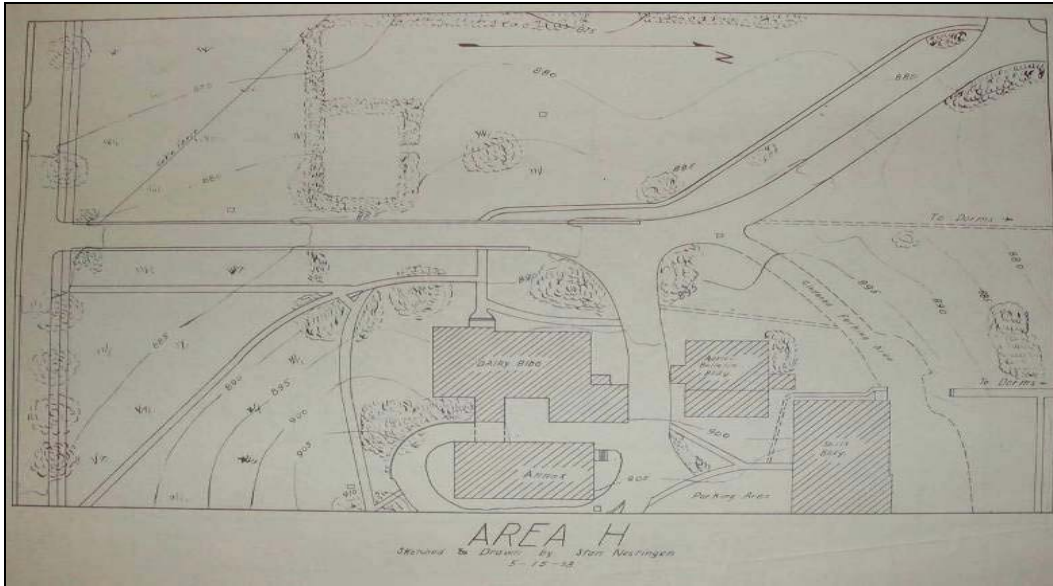


Figure 101: Site sketch of Hiram Smith/King Hall cluster, 1938. This drawing, produced during a student surveying project, details the circulation patterns and spatial relationships of this part of the agricultural campus. Babcock Memorial Garden is shown to the southwest of the Dairy Building (Hiram Smith Hall).



Figure 102: View of the Hiram Smith/King Hall courtyard, circa 1960s. By this period the vegetative island has been paved over and the cold frames have been added to the south of the greenhouses.



Figure 103: View of the Hiram Smith/King Hall courtyard, 2005. Pickup trucks have replaced the station wagons and Model T's of earlier eras. Ambiguity remains between pedestrian and vehicular use of the space. The courtyard remains a main pedestrian route from Agricultural Hall to the lakeshore dormitories.



Figure 104: View into Hiram Smith/King Hall courtyard, 2005. The western façade of Hiram Smith Hall is now devoid of large trees, adorned instead with a bicycle rack and deciduous shrubs.



Figure 105: View of Hiram Smith Hall looking north, 2005. With the demolition of E.B. Fred Hall, the Hiram Smith/King Hall cluster returned to its historic visual prominence on the agricultural campus.



Figure 106: Model of Hiram Smith/King Hall cluster and Microbial Sciences, 2005. This computer generated image projects future spatial relationships. The Microbial Sciences building was completed in 2007.

4-H Club Knoll



Figure 107: 4-H Club Knoll boulder, 2005. Dedicated in 1930, The boulder was brought to campus from a hillside in Oregon, Wisconsin.



Figure 108: View of 4-H Club Knoll and Ransom Moore sugar maple, 2005. The tree was planted during State Club Week, June 1941.



Figure 109: View of the 4-H Club Knoll, 2005. King Hall is in the background.



Figure 110: View of the flagstone steps at the 4-H Club Knoll, 2005. The steps lead to the circular stone bench and the Ransom Moore sugar maple.

EXISTING CONDITIONS

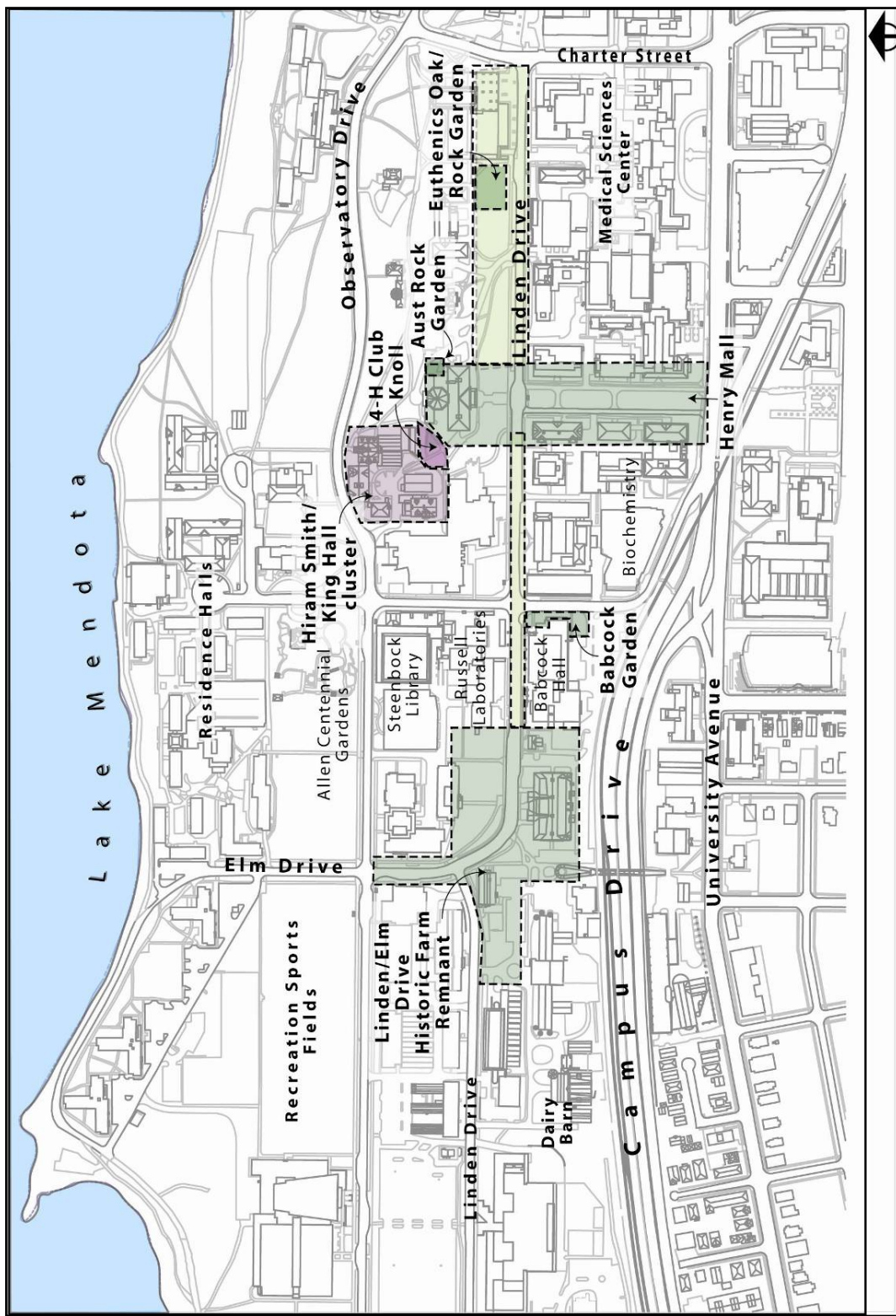


Figure 111: Landscape character areas with component landscapes, 2005.

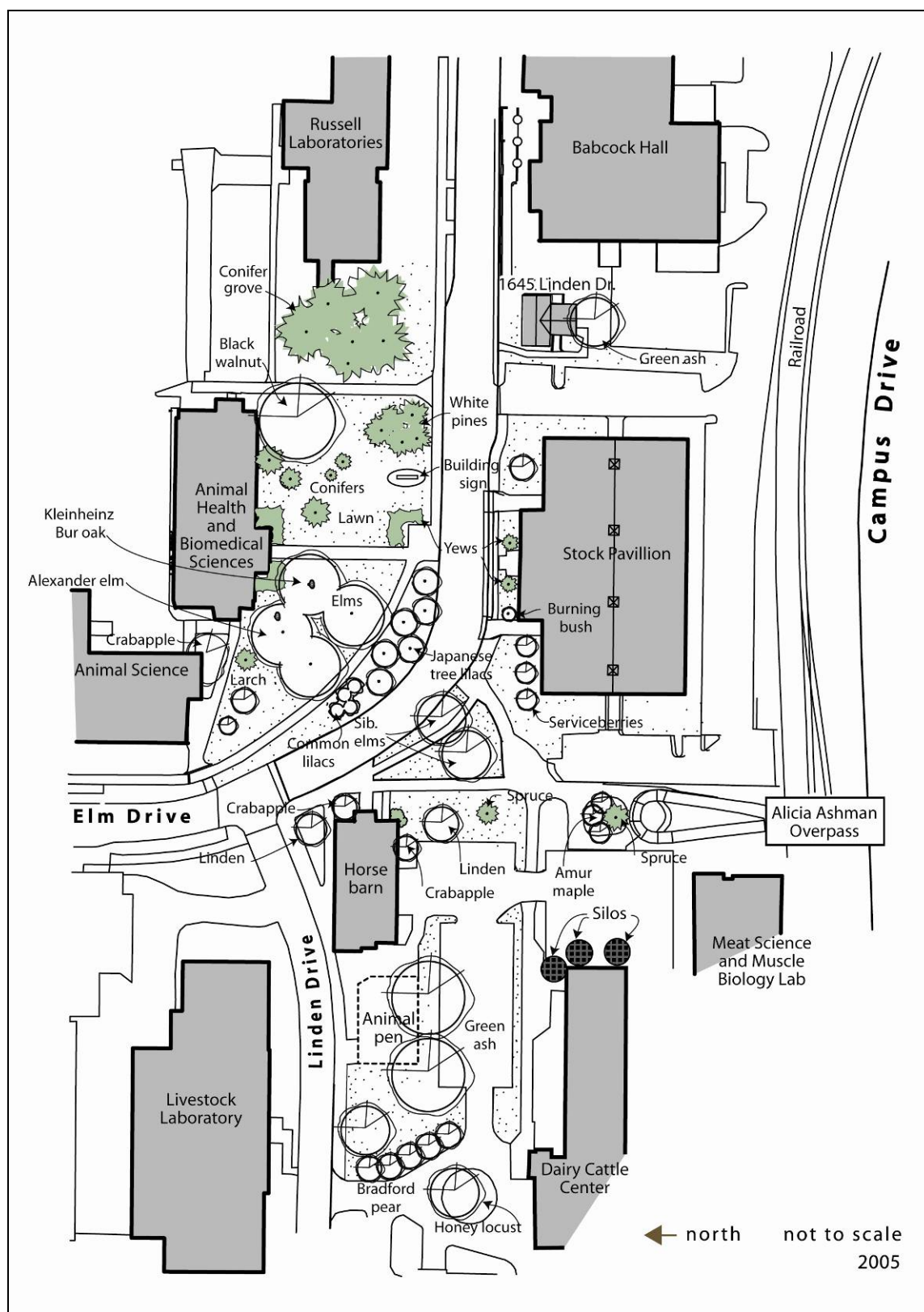


Figure 112: Existing conditions, Linden/Elm Drive farm remnant, 2005.

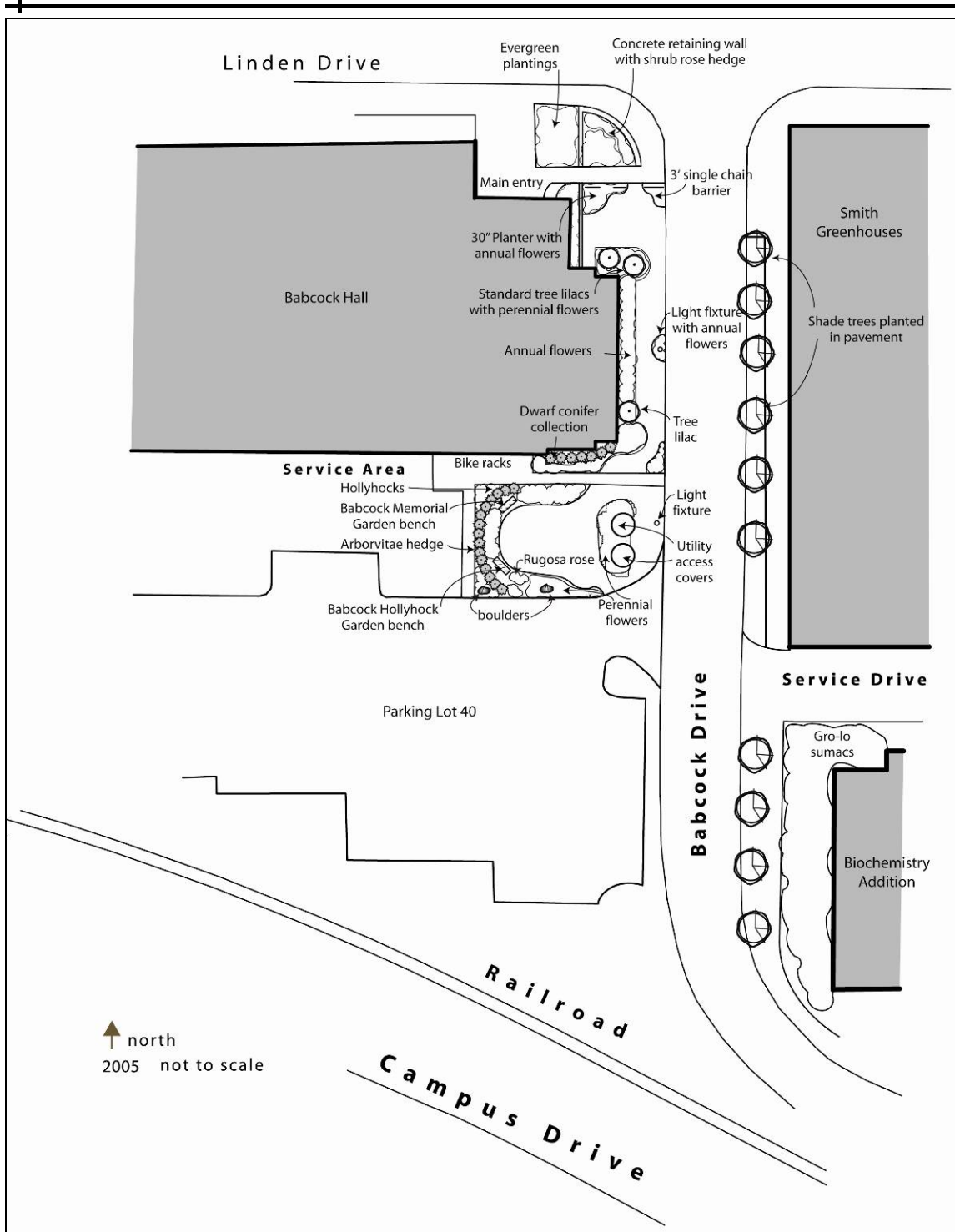


Figure 113: Existing conditions, Babcock Memorial Garden, 2005.



Agricultural Campus (rev. 2011)

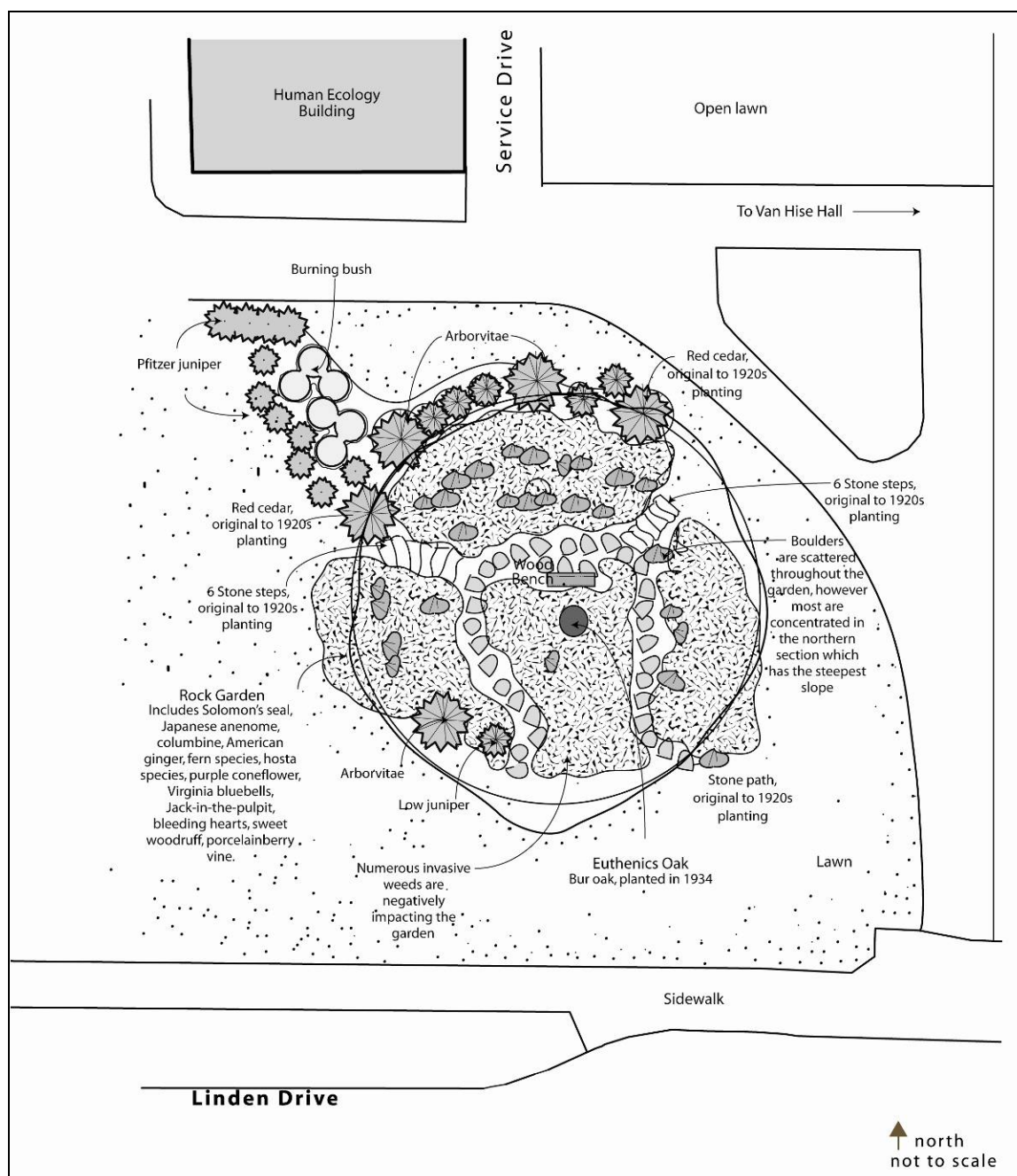


Figure 115: Existing conditions, Marlatt Rock Garden and Euthenics oak, 2005.

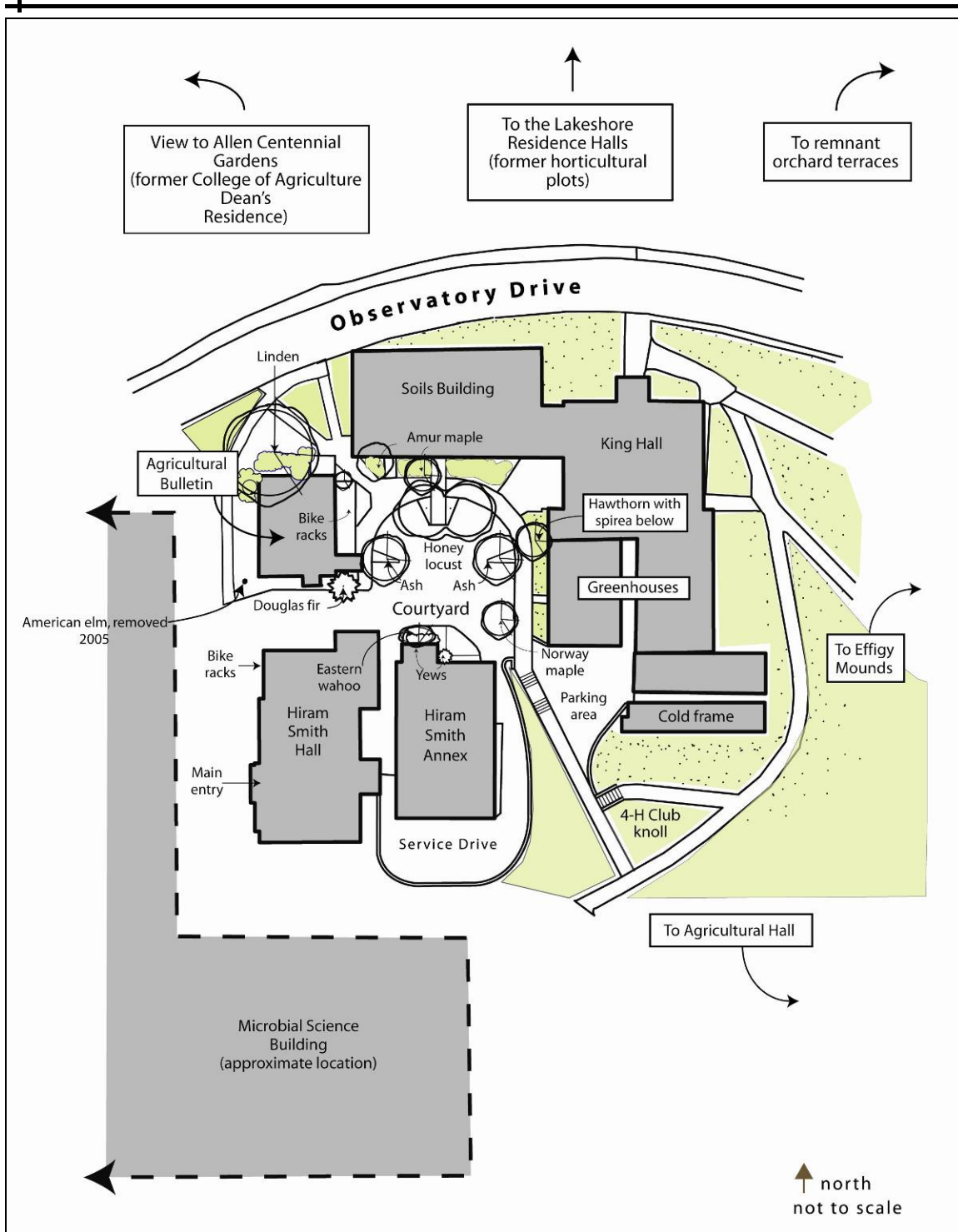


Figure 116: Existing conditions, Hiram Smith/King Hall cluster, 2005.

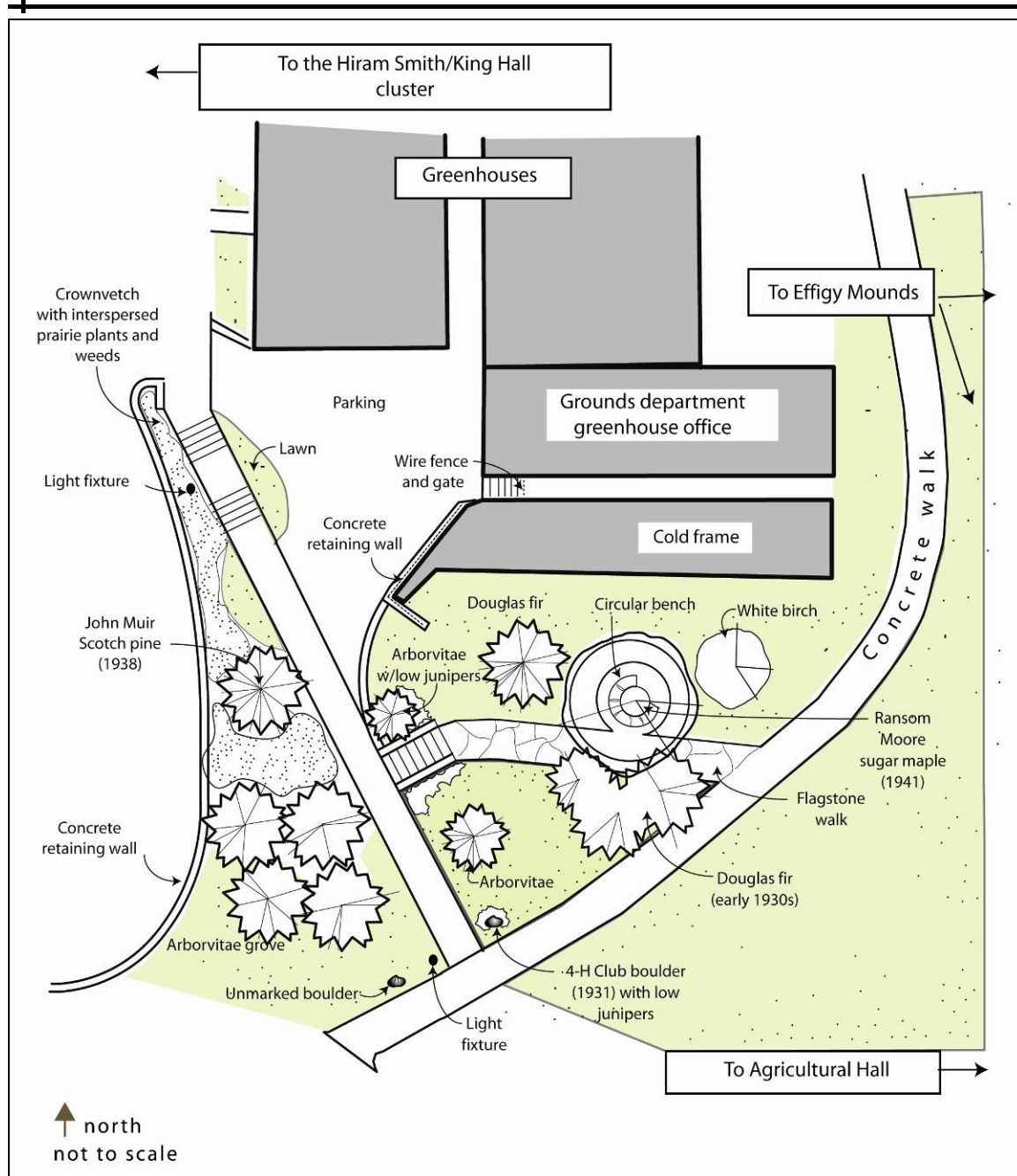


Figure 117: Existing conditions, 4-H Club Knoll, 2005.

ANALYSIS OF INTEGRITY

The Agricultural Campus Historic Landscape includes two landscape character areas, each with additional landscape components.

Linden Drive landscape character area

Component areas:

- **Linden/Elm Drives Farm Remnant:** The southern boundary extends from the southern elevation of the Stock Pavilion, and proceeds westward to the horse barn. The western boundary extends to the animal pen west of the horse barn as far as Linden Drive and includes the silos on the eastern elevation of the Dairy Cattle Center. The northern boundary extends to the southern elevation of the Animal Health and Biomedical Sciences building. The eastern boundary extends to the western elevation of Russell Laboratories and the eastern elevation of 1645 Linden Drive.
- **Babcock Memorial Garden:** The re-located garden extends from the southern sidewalk along Linden Drive to the northern limit of Babcock Hall parking lot, and to the east by Babcock Drive.
- **Henry Mall:** See the Cultural Landscape Project chapter: *Henry Mall Cultural Landscape Inventory*.
- **Aust Rock Garden:** The western border is due east of the eastern wing of Agricultural Hall; the eastern and northern borders are formed by the service drive extending to the north of Agricultural Hall, while the southern border is a parking area.
- **Marlatt Rock Garden:** The garden is circular, with the border approximately the width of the tree's canopy. The location of the garden is on the southeastern lawn of Nancy Nicholas Hall (formerly Human Ecology). South of the garden is the east/west sidewalk that parallels Linden Drive. A hedge of arborvitae and junipers (some dating to the installation of the garden in the late 1920s) remains northwest of the garden.

Western Observatory Hill landscape character area

Component areas:

- **Hiram Smith/King Hall Cluster:** This group of buildings is bordered on the western edge by Hiram Smith Hall and the Agricultural Bulletin building; to the north by Observatory Drive; and to the east by the King Hall greenhouses. The southern border extends to the southern edge of the service drive around the Hiram Smith Annex and the southern elevation of Hiram Smith Hall.
- **4-H Club Knoll:** To the north, the knoll is bordered by the edge of the steep lawn grade that extends to the cold frames currently used by the physical plant

grounds department; to the east, as far as the effigy mounds; to the south the diagonal sidewalk that exists at its intersection with the sidewalk bordering Hiram Smith Annex. The 4-H Club Knoll marker is at this juncture. To the west the border extends to the eastern concrete retaining wall along the Hiram Smith Annex service drive.

With the exception of the Babcock Memorial Garden, the landscape character areas retain integrity related to the historic significance of the agricultural campus. Therefore, they contribute to the Agricultural Campus Historic Landscape. The analysis of the landscape character areas has addressed: land use, spatial organization, vegetation, circulation, topography, and views. Buildings and small-scale features that contribute are described for each character area in table format.

Linden/Elm Drive Farm Remnant-Analysis of Integrity

Summary

The Henry and Russell eras on the agricultural campus were times of scientific discovery, which translated into significant growth and an elevated status for the experimental farm. The construction of the state-of-the-art dairy barn in 1898 and the renovation of the main barn into the horse barn in 1899 created architectural landmarks that remain on the agricultural campus today. While the historic integrity of this landscape remnant has been impacted by modern development, sufficient historic features remain, including Linden Drive, the horse barn, the Stock Pavilion, and the remnant lawn with ornamental plantings, curving road and pedestrian pathways, to provide substantial links to the historic landscape. Over time, land-use demands on the agricultural campus have reduced the wide expanse of lawn and views that once linked the horse barn to Agricultural Hall.

Land Use

Scientific agricultural research in Wisconsin began at the site of the current horse barn. Here in 1868, the first buildings were erected, the main barn and the farm superintendent's house. Initially, all agricultural research was conducted on nearby farm plots. With the advent of dairy research, numerous specialized barns and small farm-related structures were constructed to support animal husbandry and dairying. Throughout the 1880s, farm director W.A. Henry's writings reflected his focus on the development of a research farm, not a landscape of "horticultural loveliness."¹⁷⁷ In 1892, a campus beautification movement influenced land use on the farm. Recommendations made by the board of visitors, and reported in newspaper articles and in reports from the board of regents from the 1890s, illustrate landscape gardener O.C. Simonds' active involvement on the campus during this time of significant landscape change. From these sources we can ascertain the influence he had on the aesthetic development and physical organization of the agricultural campus. It is quite probable that the early farmhouse and

¹⁷⁷ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, 1886.

dairy building were moved to Farm Place, east of the Stock Pavilion, under Simonds' direction. This area became the central residential land-use area on the agricultural campus.

On the farm, campus architect J.T. Jennings enhanced Simonds' romantic landscape aesthetic by employing the Norman style on several agricultural buildings. In the early 1900s a lawn was installed that swept from the new Agricultural Hall to the recently remodeled horse barn. This area became the symbolic front yard of the farm, a key feature in the presentation of both the agricultural college and farm to the public. After World War II, the demand for research and classroom space on the original experimental farm increased. By the end of the 1940s, Dean Henry's, "extended beautiful stretch of sward and shrubbery," located between Agricultural Hall and the horse barn, the site for six temporary research buildings.¹⁷⁸ The construction of Russell Laboratories (1965), Steenbock Memorial Library (1969), and Veterinary Science [currently Animal Health and Biomedical Sciences], (1972), in addition to the development of intramural fields to the north, eliminated any perceived separation between the college and the farm.

The transition from a farm to laboratory emphasis altered land-use patterns on the farm. The construction of large-scale buildings and laboratories moved most agricultural activity off site. Residential land use was also eliminated in the 1950s.¹⁷⁹ Today, the remains of the original farm landscape are seen in the horse barn, the animal enclosure to the west, the Stock Pavilion, the intersection of Elm and Linden Drives, and the lawn with memorial trees to the south of the Animal Health and Biomedical Sciences.

To the west of the Stock Pavilion is a small circular planting bed with three Amur maples and a tall spruce. The bed, revealed in early maps of the area, was historically connected to a wagon shed that housed the university's horses. Today this bed is at the base of the Ashman overpass over Campus Drive that links the agricultural campus to University Avenue. The Stock Pavilion retains its historic architectural integrity, and maintains a historic landscape relationship to Linden Drive, the farm superintendent's house (moved to its current location in 1901), the lawn on the south side of Animal Health and Biomedical Sciences, and the horse barn to the west. Behind the horse barn is a small animal pen. Historically, the area between Linden and Green Ash Drives, where the US Dairy Forage Research Center is located today, was fenced for livestock. The horse barn now functions as storage space for the university's physical plant. Despite these changes, this landscape cluster retains an agricultural character through the architecture of the buildings, the pen enclosure west of the horse barn, the lawn, and Linden Drive.

¹⁷⁸ W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, 1905.

¹⁷⁹ Jim Feldman, *Buildings of the University of Wisconsin* (Madison: University of Wisconsin Archives, 1997).

Spatial Organization

The location of the farm was specifically oriented for roads and land use. Following the Olmstead land-grant college model, the early farm consisted of a small cluster of buildings situated in an informal setting.¹⁸⁰ This spatial arrangement continued until the early 1900s, when the influence of the City Beautiful Movement affected campus design.

The relocation of three early farm buildings, placed in a row and oriented to Farm Place and Linden Drive, indicated a more conscious attention to the principles of the City Beautiful aesthetic. The axial arrangement of these structures, together with the construction of the Stock Pavilion, created a more formal building cluster surrounding the lawn. Beginning in the 1940s, numerous buildings, at first temporary and then permanent, were placed on the ornamental lawn, disrupting the spatial organization of the landscape.¹⁸¹ Today, the early spatial character of this area is difficult to ascertain, but the horse barn, Stock Pavilion, former farm superintendent's house and the remnant ornamental lawn retain a spatial relationship that contributes to the historic landscape.

Vegetation

Prior to pioneer settlement, an oak savanna was the predominant native landscape in this area. Oak remnants remain to the west of Willow Creek, but not within the Linden/Elm Drives farm remnant. Under the direction of the first farm superintendent, William Daniells, the farm used vegetation for science, with research orchards, vineyards, and fields being planted. The hiring of John Bascom as the new president of the university in 1874 brought a renewed interest in landscape aesthetics, which prompted numerous tree plantings throughout the campus grounds, including on the farm.¹⁸² Vegetation was used to delineate use areas and to define the farm boundaries with tree lines planted along the prominent farm roads of Linden, Elm, and Green Ash Drives, and for a brief time, Box Elder Drive.¹⁸³

Linden Drive served as the main access route to the western campus. The closely planted trees limited road expansion possibilities, however. The advent of the automobile age precipitated the need for wider roads and improved infrastructure, and minimized the functional service of the avenue of linden trees. In the early 1900s a third row of lindens was planted to offset the removal of one of the initial rows. The subsequent widening of the road, construction of buildings, and infrastructure improvements have diluted the allée affect of the road. The health of the current lindens is also increasingly endangered

¹⁸⁰ Laura Wood Roper, *FLO, A Biography of Frederick Law Olmsted* (Baltimore, Maryland: Johns Hopkins University Press, 1973), 312.

¹⁸¹ Wisconsin State Planning Board, *A Campus Development Plan for the University of Wisconsin*, Madison: Wisconsin State Planning Board, 1941.

¹⁸² See the tree map located in the University of Wisconsin Archives series 1/1/3, Box 8, Board of Regents Secretary Files, in the folder dated: June 23, 1875.

¹⁸³ "The farm hands are busy planting shade trees in the street bordering the University Park." See *University Press*, Vol. 4, No. 10, May 15, 1873, 275.

by their sensitivity to urban environmental stresses.¹⁸⁴ Elm Drive, like so many elm avenues in America, was decimated by Dutch Elm Disease. Today, a variety of hybrid and Asian elms have been used to replace the American elms, but do they do not give the shaded alleé effect of the earlier era. Both Box Elder and Green Ash Drives no longer exist. Box Elder Drive, changed to Farm Place, became the residential area of the agricultural campus.¹⁸⁵

The early farm used vegetation for pasture and research plots, paying little attention to aesthetics. An 1883 article in the student newspaper noted one attempt at ornament: “The small attempt to coax a few blossoms into life along the University Drive last year was a failure, so that with the exception of a small spot in front of the University farm house, our wide extent of ground is destitute of flowers.”¹⁸⁶ Things began to change in the 1890s, however, as landscape gardener Simonds’ brought his romantic garden aesthetic to the campus.¹⁸⁷

In 1905, quite possibly under the design direction of Simonds, a pastoral lawn and ornamental plantings were developed, which visually and symbolically connected the horse barn to the Agricultural Hall.¹⁸⁸ A mixed collection of conifers featured prominently on the lawn, framing the views and delineating the lawn from the research fields to the north.¹⁸⁹ The City Beautiful aesthetic had little impact on the vegetation of this landscape.

Today, a remnant of William A. Henry’s lawn remains across from the horse barn and to the south of the Animal Health and Biomedical Sciences building. The lawn extends to Russell Laboratories, but the vista to Agricultural Hall no longer exists. On the lawn are two memorial trees with corresponding engraved boulders, one for Frank Kleinheinz (bur oak) and another for Alex Alexander (elm).

Japanese tree lilacs planted along Linden Drive are distinctive, but they limit visual relationships between the horse barn and Linden Drive. A group of four common lilacs is located adjacent to the Japanese tree lilacs. On the other side of the entry walk to the Animal Health and Biomedical Sciences building is a mixed collection of conifers. Little design intent or framing of views is evident among the recently planted trees, as had

¹⁸⁴ William R. Thomas and Edward R. Hasselkus, “The Trees of the University of Wisconsin-Madison Campus,” unpublished report, 1975, 6. See University of Wisconsin-Madison Archives: subject file E.B. Fred.

¹⁸⁵ At that time box elders were deemed undesirable trees, hence the name change. Remnants of the original tree plantings that once lined Green Ash Drive, to the south of the horse barn, can still be seen today.

¹⁸⁶ Local Section, *University Press*, May 19, 1883, 1.

¹⁸⁷ See Appendix 2.

¹⁸⁸ See W.A. Henry, *Wisconsin Agricultural Experiment Station Report*, Madison: University of Wisconsin Agricultural Experiment Station, 1905, 2.

¹⁸⁹ Andrew Jackson Downing wrote extensively about conifers in the American landscape. He considered their form and year-round interest as an important asset for their use. The University of Wisconsin campus is another example of Downing’s influence on the aesthetic character of the American landscape. Conifers were planted extensively throughout the campus in the later half of the nineteenth century. See Downing’s essay, “A Word in Favor of Evergreen Trees,” *Rural Essays* (New York: George Putman and Co., 1853), 327-334.

occurred in the original design of evergreens on the site of the early farm period. The cluster of white pine at the southwestern corner screens the lawn from Linden Drive.

At the horse barn, vegetation is limited to sporadic plantings of yews, crabapples and linden trees. Three mature Siberian elms are clustered on the southeastern side of the barn where Linden and Elm Drives meet. These trees were planted as replacements for the original disease-infected American elms.¹⁹⁰ Remnants of Green Ash Drive are seen in the parking lot to the south of the horse barn, where sporadic, mature, green ash trees provide some historic vegetative context to the area. At the Stock Pavilion, a formal foundation planting of clipped yews frames the main entry with three serviceberries west of the door and a linden tree to the east.

Circulation

Early maps indicate that Linden Drive connected Charter Street (formerly Mary Street) to the horse barn after the purchase of the 1866 Loring Tract. The drive initially encircled the farm superintendent's house located adjacent to the horse barn. The center of the Experimental Farm activity was at the intersection of Elm and Linden Drives. Elm Drive extended northward, but did not connect with Lakeshore Drive (currently the lakeshore path) until the 1880s.¹⁹¹ Circulation patterns defined this area from the time of the purchase of the farm in 1866. In the early 1900s Linden Drive was realigned into a simple curved road that connected to Elm Drive at the horse barn. This circulation route remains today. The portion of Linden Drive that extends from Charter Street to Elm Drive retains integrity as a historic vehicular circulation route. The portion of Linden Drive that extends to the west from the horse barn was straightened in the 1950s and does not contribute to the historic circulation route.

The area once covered with experimental fields, is today bisected by paved roads and parking areas. Linden Drive, when traveling west from Babcock Drive, is also a major pedestrian thoroughfare. Just south of the horse barn is a pedestrian circulation node, located approximately where Green Ash Drive once intersected with Linden Drive. From this juncture, pedestrians can travel south to the Ashman overpass which connects the campus with University Avenue, go north to the residence halls and intramural fields, or proceed west to the agricultural research and teaching facilities. This site was the historic location of the wagon shed.

Views

Historically, views were an important design consideration on the agricultural campus. The college and farm were initially two distinct areas, and buildings were grouped accordingly, though the visual relationships between the two spheres of agriculture were considered. The proposed location for the first agriculture college buildings (Hiram Smith/King Hall) was near the original farm buildings, however, this did not occur.

¹⁹⁰ Thomas and Hasselkus, "Trees of the University of Wisconsin-Madison Campus," 5.

¹⁹¹ The Wisconsin State Historical Society has numerous maps of this early era. W.A. Henry's Wisconsin Experimental Station Reports also illustrate landscape change, especially with regards to roads.

Instead, the buildings were constructed on the elevated, western edge of Observatory Hill, providing a prominent location for the new buildings. In the early 1900s the two areas were visually connected with the installation of the ornamental lawn between Agricultural Hall and the horse barn.

Today, the historic vista between college buildings and the farm no longer exists. The college has engulfed the farm, replacing former fields and experimental plots with buildings. The view along Linden Drive from Agricultural Hall to the horse barn hints at the vista that once existed, however, it is only a remnant of the historic relationship that once existed between the agricultural education buildings and the working farm.¹⁹² Construction of E.B. Fred Hall in 1955, Russell Laboratories and Veterinary Science (currently Animal Health and Biomedical Sciences) in 1965 and Babcock Hall in 1951 altered the views between the agricultural campus buildings associated with Hiram Smith Hall and Agricultural Hall to the east, and the farm buildings to the west.

Babcock Memorial Garden - Analysis of Integrity

Summary

Historically, the Babcock Memorial Garden was an aesthetic pleasure garden, dedicated to Stephen Babcock after his death in 1932. Located just north of the pastoral lawn running from Agricultural Hall to the horse barn, the garden connected visually to the horticultural gardens to the south, all of which created the “garden” character in the vicinity of Linden and Babcock Drives envisioned by Peabody, Laird and Cret in 1908.¹⁹³ The realignment of Babcock Drive in 1951 displaced the garden, which was moved next to Babcock Hall in 1952. The current garden does not physically represent the historic garden.

Land Use

Built in 1933 as a memorial to Stephen Babcock, the garden, designed by Franz Aust and W.A. Longenecker, remained due southwest of Hiram Smith Hall until the realignment of Babcock Drive in 1951. In its historic location the garden was a significant landscape space on the agricultural campus, a “sanctuary of solitude.”¹⁹⁴ The garden was moved to its current location at the eastern side of Babcock Hall in 1952. At the time of the relocation, E.B. Fred wrote, “I hope the Dean of Agriculture and his staff will do everything within their power to see that this garden, and the oaks if necessary, are relocated in an attractive and quiet spot.”¹⁹⁵

¹⁹² Andrew Hopkins correspondence with E.B. Fred, February 19, 1952. Andrew Hopkins Papers, Wisconsin Historical Society.

¹⁹³ Ibid.

¹⁹⁴ Aust, “Ostentation or a Sanctuary of Solitude.” See Franz Aust Papers, Wisconsin Historical Society Archives.

¹⁹⁵ Andrew Hopkins, correspondence with E.B. Fred, Andrew Hopkins Personal Papers, Wisconsin State Historical Society, February 19, 1952.

This desire, however, went unfulfilled as modern urban land uses have altered the area surrounding the garden. At the time of its relocation in 1952, the overall context of Babcock Drive retained the strong horticultural presence first proposed by Peabody, Laird and Cret in their 1908 plan. This horticultural land use has been lost with the construction of the E.B. Fred Hall (demolished in 2004), the installation of a parking lot along Babcock Drive in the 1960s, the construction of the Plant Sciences addition to the Horticulture building in 1983, and the Biochemistry Addition in 1996. The realignment of the railroad in the early 1960s shifted the tracks to the north, closer to the gardens. Today, what had been extensive gardens are no longer extant, and its replacement, the diminutive Babcock Memorial Garden is dwarfed by its urban context.

Spatial Arrangement

The Babcock Memorial Garden was moved to its current location in 1952 following the realignment of Babcock Drive. The replacement garden, next to Babcock Hall, does not have the same spatial impact of its predecessor. Whereas the first garden was a distinct space, with plants defining the boundaries and organizational structure, the garden installed in 1952 was dwarfed beside the modern Babcock Hall. The garden was altered and reduced over time, due to the widening of Babcock Drive, the realignment of the railroad, the construction of Campus Drive in the early 1970s, and the replacement of the F.H. King residence with a parking lot.

Vegetation

Hollyhocks, Stephen Babcock's favorite flower, were an important design component of the original garden. Landscape architect G.W. Longenecker wrote of the garden in 1932:

A space has been left for a huge boulder and another for a stone seat bearing an inscription. Old fashioned flowers, loved by Dr. Babcock: phlox peonies, sweet William, Shasta daisy, foxglove, and Canterbury bells, bordered by hollyhock and white lilacs will predominate.¹⁹⁶

The enclosed garden was screened from Babcock and Linden Drives by plantings of cedar, sumac, pin oak, ash, lilacs, roses, viburnums and hawthorns.¹⁹⁷

The garden lost its original plant variety and organization with its move. The hollyhocks are now relegated to a background spot near a service area. The stone bench, originally selected by Franz Aust, overlooks the parking lot.¹⁹⁸ Most of the garden is now planted

¹⁹⁶ "Hollyhocks Rule in the Babcock Garden," *Wisconsin Country Magazine*, December 1932, 7.

¹⁹⁷ Aust, "Ostentation or a Sanctuary of Solitude." See Franz Aust Papers, Wisconsin Historical Society Archives.

¹⁹⁸ In a letter dated May 3, 1933, to Dean Christiansen, Aust wrote regarding an appropriate marker for the Babcock Garden. Aust selected a slab of granite to be made into a bench and that would be inscribed with a memorial tribute. See Office of Dean of and Director of Agriculture, General Subject file: series 9/1/1/3-5, Box 26, Horticulture, University of Wisconsin-Madison Archives.

with annual flowers, woody ornamentals and a few of the cottage garden biennials and perennials prevalent in the original garden designed by Aust and Longenecker.

Circulation

Circulation has greatly affected this important landscape feature. The garden once held a significant position on the agricultural campus, but today, the relocated garden has lost much of its visual impact. The construction of Campus Drive further changed the character of the garden in the 1960s and 1970s. Today, the narrow garden is bordered by Babcock Drive to the east, a parking lot constructed in the 1960s to the south, Babcock Hall to the west, and Linden Drive is to the north.

The widening of Babcock Drive also eliminated much of the eastern garden along the drive. A bike path now borders the eastern edge, with one-way automobile traffic feeding in from University/Campus Drive to the south. Quiet and solitude, two essential features of the first Babcock Memorial Garden, eludes this space because of the constant drum of traffic sounds from Campus/University Drive.

Views

At its historic locale, views played an important role in imbuing the garden with character and meaning. The proximity to Hiram Smith Hall created a visual connection between the garden and the building that was closely identified with Stephen Babcock. Today, subtlety and the diffusion of views are lost in the new garden location. While the garden remains physically connected to Babcock Hall—the dairy building that replaced the functions once housed in Hiram Smith Hall—the garden is no longer enclosed or separated in any way from its surrounding urban context.

Henry Mall-Analysis of Integrity

See the *Henry Mall Cultural Landscape Inventory*.

Aust Rock Garden-Analysis of Integrity

Summary

The Aust Rock Garden is a rare example of the planting philosophy of landscape architect Franz Aust at the University of Wisconsin campus. Today, the neglected garden belies its origins, when landscape visionaries Jens Jensen and Aust endeavored to integrate the natural and built environments. Over time the garden aspect of the space was lost and the result is the unkempt, weedy space seen today. It retains integrity, despite numerous invasive plant species that impact the form of the garden. The rock wall is intact but in need of repair, and the adjacent parking area has negatively impacted the space.

Land Use

The Aust Rock Garden, named for its designer, Franz Aust, was constructed in conjunction with the new building wing on Agricultural Hall in the early 1930s. One account of the proposed garden indicated the plans included a succession of blossoms, with a pool, waterfall, steps, and shrubbery.¹⁹⁹ While the pool was never implemented, the steps, succession of blooms, and shrubbery provided structure for the garden. Today, a small parking lot encroaches on the space. The garden has an abandoned character, as numerous weeds now dictate the current vegetation.

Spatial Organization

The garden was constructed with strong horizontal lines that reflect the topographic conditions on Observatory Hill. The native rocks, arranged in a natural formation, still exist. The wall structure, however, has eroded, and the steps have almost totally disintegrated. However, the overall “bones” of the garden are consistent with their original form.

Vegetation

While the “bones” of the Aust Rock Garden remain, the vegetation is overgrown, with invasive weeds, sumacs, and grasses obscuring the strong horizontal lines of the original garden. Some original garden plants remain, including numerous columbine.

Circulation

The parking bays to the south have progressively stolen space from the garden. The rock pathway through the garden has also eroded.

Marlatt Rock Garden-Analysis of Integrity

Summary

This garden is a significant remnant of landscape architect Franz Aust’s work and an example of the influence of the Friends of Our Native Landscape organization on the university campus. The series of natural landscape initiatives instigated on the campus by Aust is nowhere more evident than at the Marlatt Rock Garden Oak, situated southeast of the Nicholas Hall. It represents his philosophy for planting design and rock gardens, and has many extant features. The garden retains integrity and contains numerous native spring ephemerals from Aust’s original design. Also, the garden’s overall spatial organization, vegetation, land use, and the wall and steps remain intact.

¹⁹⁹ “Home Ec Rock Garden Becomes Famous,” *Wisconsin Country Magazine*, October 1930.

Land Use

Early accounts indicate a garden was developed under the Euthenics oak soon after the construction of the Home Economics building in 1914. Landscape architect Aust prepared a design for the garden in the 1920s, emphasizing long blooming plants, spring ephemerals, and native species.²⁰⁰ The garden was featured prominently in the *Wisconsin Country Magazine* and was also incorporated into the activities of the Euthenics Club.²⁰¹ Many know the garden by its unofficial name, the Marlatt Rock Garden, in honor of Abby Marlatt, the first head of home economics department at the university. An early 1930s photograph indicates the garden consisted of an arc-shaped rock wall that surrounded but did not encompass the oak. Today the garden includes the area beneath the oak.

Spatial Organization

The original garden, including the informally arranged stone pathway and stone steps, is extant. The rock retaining walls, organized in a nature-inspired arrangement, are extant.²⁰² The overall form of the space is consistent with historic photographs.

Vegetation

Saving the Euthenics oak marked an important accomplishment in ecological conservation on the campus. The oak was to be removed following construction of the Home Economics building in 1913. The outcry that resulted from the planned removal led to the development of a retaining wall to protect the tree. In the 1920s, Aust designed a more aesthetically pleasing rock wall to replace the makeshift grade divider between the oak and the building. At the same time, he implemented the planting of native species, including spring ephemerals. Today much remains of the Aust landscape plan, though numerous hosta were added at a later date, and many weeds now impact the garden vegetation. The columnar vegetative screen that Aust intended to diffuse the visual impact of the Home Economics building remains, and includes many original trees.

Circulation

It could be argued that the location of the original Euthenics oak, on a major pedestrian circulation route, was the impetus for the garden. Today, the garden and replacement oak (1934) remain on a major campus pedestrian circulation route, Linden Drive. Within the garden, two stone stairways, both constructed in the late 1920s, are extant and in good condition.

²⁰⁰ "Euthenics Oak," *Wisconsin Country Magazine*, June 1931, 12.

²⁰¹ "Introducing the Euthenics Club," *Wisconsin Country Magazine*, October 1933, 6.

²⁰² Throughout the 1920s and 1930s, Franz Aust wrote numerous articles on the proper placement of stones in a rock garden. See Franz Aust Landscape Design course lecture, "Rock Garden," date unknown, Franz Aust Papers, Wisconsin Historical Society Archives, microfilm, reel 2, 308.

Views

The oak and garden have historically maintained an important relationship with Linden Drive to the south. Today the garden remains visually connected to the heavily traveled pedestrian corridor along the drive. However, the oak lost its visual prominence with the construction of Van Hise Hall directly east of the garden.

Hiram Smith/King Hall Cluster-Analysis of Integrity

Summary

The Hiram Smith/King Hall cluster (figures 85-106) is a significant expression of two campus planning eras: the romantic aesthetic of O.C. Simonds and J.T. Jennings, and the City Beautiful aesthetic of Warren Laird and Paul Cret. It is also significant for its relation to the college's origins and for the notable scientific agricultural advancements that occurred there. Governor William Hoard and Regent Hiram Smith, both state dairy leaders, encouraged the development of a dairy program at the university. With the hiring of Stephen Babcock in 1887, the university established a close association with the state's dairy industry, which led to numerous advances in dairy science and growth in the program.²⁰³

The Horticulture/Agricultural Physics building (King Hall) was constructed in two phases, in 1894 and 1896. The horticulture department resided here for seventeen years before moving south of Linden Drive. In its early years, first under Emmet Goff (1889-1902), and then Emil Sandsten (1902-1909), research encompassed almost the entire range of horticultural crops. Goff worked closely with the Wisconsin State Horticultural Society on many projects. As with the dairy school, the focus on applied horticultural education resulted in a dramatic enrollment increase from fewer than a dozen students in 1889 to more than three hundred by 1902.²⁰⁴

Sharing the new building and greenhouses was the first soil physics department in America. In 1905 its name was changed to the Department of Soils, also a national first. Under the guidance of visionary soil physicist F.H. King, the new department undertook a series of diverse research projects, ranging from soil irrigation and quantitative soil physiological experiments to agricultural engineering. Here King developed the round silo, formulated improved methods of barn construction and ventilation, and popularized the round barn.²⁰⁵ The windmill, originally located atop the western wing of the building, provided some of the earliest research on wind power. King's work in developing quantitative methods of soil analysis was also internationally significant.

²⁰³ Henry Ahlgren, *Fifty Years of Cooperative Extension, 1912-1962*. Madison: University of Wisconsin Extension Service, College of Agriculture, 1962.

²⁰⁴ Department of Horticulture, "1889-1989—A Century of Horticulture," Department of Horticulture, University of Wisconsin-Madison, provided by Ed Hasselkus, Department of Horticulture.

²⁰⁵ Gunwald Overgard, "King, Soils, Silos: A Soil Physicist Built a Round Barn" *Wisconsin Country Magazine*, November 1931, 7.

The Hiram Smith/King Hall cluster retains the organized building cluster arrangement, circulation patterns, spatial organization, and contributing structures. The landscape retains integrity of location, design, materials, and workmanship.

Land Use

Land uses in this cluster reflect changing trends in agriculture. The dairy building, constructed in 1893, was the site of much early and prestigious dairy research in the United States. The creamery offered short course students skills that could be translated into profits on the farm and at home. The Department of Soil Science, in King Hall, is the only original tenant that remains in this historic cluster of buildings. The agricultural heating station, constructed in 1898, remained in use until the western campus was connected to the university's main power plant in 1909.²⁰⁶

The continued growth of the dairy science and the soils department, required additions to the existing Hiram Smith/King Hall building cluster. By the 1940s, dairy science had outgrown the Hiram Smith Hall complex; in 1951 the department moved to its new building at the corner of Babcock and Linden Drives. Hiram Smith Hall continues to serve the needs of the agricultural campus, presently housing the life science communications department. The soil science department remains at King Hall-Soils, and the Hiram Smith Annex.

Spatial Organization

The initial placement of Hiram Smith Hall on the western crest of Observatory Hill illustrated the influence of the romantic landscape aesthetic. The site was specifically chosen because of its prominent location, which utilized the natural topography.²⁰⁷ Soon thereafter, the Horticulture/Agricultural Physics building (King Hall), constructed in two phases in 1894 and 1896, was situated to relate spatially to both Hiram Smith Hall to the west and the new horticultural fields to the north. This spatial relationship retained its sensitivity to the topography, while creating an informal cluster of buildings. The construction of the Agricultural Heating Station in 1898 and Agricultural Hall in 1903 continued this loose spatial cluster on Observatory Hill. A detailed site determination report for Agricultural Hall prepared in 1901 reflects the continuing influence of the romantic aesthetic on spatial placement.²⁰⁸

In 1908, with the introduction of the Peabody, Laird and Cret plan, the City Beautiful aesthetic added a formal layer onto the existing cluster. The Hiram Smith Annex of 1910, the new Horticulture building of 1910, and the Soils building of 1914, all related to the existing Hiram Smith/King Hall cluster in a

²⁰⁶ Feldman, *The Buildings of the University of Wisconsin*, 1997, 105.

²⁰⁷ Board of Regent Meetings/Secretary Files, June 16, 1891, series 1/1/3, located at the University of Wisconsin Archives: Box 10.

²⁰⁸ A report by R. Warder, identified as a landscape designer from Lincoln Park (Chicago, Illinois), dated July 27, 1901, University of Wisconsin Archives, series 1/1/3, Board of Regent Meetings/Secretary Files, August 29, 1901.

formal, axial spatial manner. The new Horticulture building on Linden Drive was centered on the original drive (Babcock) that ran north/south in front of Hiram Smith Hall, and then curved toward the Agricultural Dean's Residence, before continuing to Lakeshore Drive. The Soils building and Hiram Smith Annex pushed the existing buildings in the cluster into a more formal symmetrical arrangement.

Today, the spatial organization of the two layers is noticeable. The northern and eastern edges of the cluster maintain a romantic aesthetic relationship to Observatory Hill and Agricultural Hall, which date to the 1890s and early 1900s. The cluster itself retains its formal courtyard relationship imposed by the City Beautiful plan of 1908. The historic exterior relationships to the south and west, however, have been lost. The last remnant of the Peabody, Laird and Cret-inspired road, centered on the 1910 Horticulture building, was removed in 2005. The new Microbial Sciences building has eliminated the historic spatial connections that previously existed to the west and south.

Vegetation

Evergreens were planted on the western edge of Observatory Hill during the planting surge that occurred after the 1866 farm purchase. To the north, the 1894 Horticulture building was associated with the second orchard planted in the early 1890s. Today, most of the vegetation in this cluster is located along the exterior of the building cluster. Foundation plantings around the buildings display a mixture of planting styles from the 1940s and later, and include serviceberry, burningbush, viburnum (various types), spirea, low junipers, and yews.

Two mature honey locusts frame the main entry to the Hiram Smith Annex. Two mature ash trees soften the built environment of the courtyard. A Norway maple, in poor health, and a Douglas fir are the other two large plants in the courtyard. Amur maples are planted near the foundation of the Hiram Smith Annex. There is little vegetative consistency between the Soils building and Hiram Smith Hall "sides" of the courtyard. Decorative pots add seasonal color to the northern entry of the Agricultural Bulletin building and the university's physical plant greenhouse.

Circulation

Historically, access to the early agricultural campus buildings and orchard was from University Bay Drive along Lake Mendota or Linden Drive. Observatory Drive provided access to the Observatory Hill buildings, but no farther until the early 1900s, following the construction of Agricultural Hall.

In 1934 Observatory Drive was realigned to create a more direct route between Babcock Drive and Charter Street. Today Observatory Drive awkwardly abuts one corner of the Soils building, which limits pedestrian access to the southern side of the drive. In the courtyard, circulation routes for vehicles and pedestrians are intermingled. Over time, greater vehicle use prompted the increased use of pavement, indicating the

mounting importance of vehicles in the space. The service drive that Dean Henry proudly alluded to in his early Wisconsin Agricultural Experimental Station reports remains intact, although it no longer functions as a milk truck delivery access for Hiram Smith Hall.

Response to Natural Environment

The development of the agricultural campus was influenced by the topography of the area and the natural environment. The placement of the first orchard on the university farm was specifically chosen because of its north-facing slope, a critical factor for the protection of marginally hardy plant material. Eventually, the Horticulture/Agricultural Physics building would be constructed close to these orchards and horticultural fields. The only building near the lake, the Agricultural Dean's Residence, was placed to take advantage of the lake views. The sites selected for the dairy building in 1892 and Horticulture/Agricultural Physics in 1894-96 were specifically selected for their topographic characteristics. The elevated western edge of Observatory Hill was more visually prominent than the initial choice, the experimental farm area. Early accounts emphasized the importance of locating the new building close to the existing horticultural fields.²⁰⁹ Today the cluster still has a strong connection to the topography of the site. The courtyard is steeply sloped, which may limit future development as a pedestrian space. The cluster retains a visual relationship to Observatory Hill and the dormitories to the north.

Views

The Hiram Smith/King Hall cluster was consciously sited with sensitivity to the topography, and to emphasize these dramatic views.²¹⁰ Unfortunately, this vista was soon obscured. The construction of Bacteriology (E.B. Fred Hall) in 1955 blocked the view to the south and to the southwest, and the later construction of Russell Laboratories and Steenbock Memorial Library visually disconnected the building from the rapidly disappearing farm landscape to the west. For a brief time in 2005, after E.B. Fred Hall was torn down and the Microbial Sciences building constructed in its place, the Hiram Smith/King Hall cluster returned temporarily to visual prominence. The completed Microbial Sciences building, however, obscures the view of the Hiram Smith/King cluster from the west though the historic views to the north and east remain. The visual connection to former orchard land along the northern edge of the hill continues, as does the loose quadrangle of Hiram Smith, King Hall, Agricultural Hall and the Observatory, proposed in 1900, to the east.

²⁰⁹ Office of Dean of and Director of Agriculture, General Subject file: series 9/1/1/3-1 Box 16, Horticulture, University of Wisconsin, Madison Archives. 1. "Needed Improvements for the Horticultural Department," by E.P. Sandsten. (unknown date between 1902 and 1910); 2. October 18, 1906: E.P. Sandsten details the inadequate facilities available for the Department of Horticulture; 3. Critique by E.P. Sandsten of the Laird and Cret plan for Horticulture, May 1, 1907; 4. June 11, 1907: Letter regarding the most pressing needs in the Department of Horticulture to Dean Russell from E.P. Sandsten.

²¹⁰ Board of Regent Meetings/Secretary Files, series 1/1/3, June 16, 1891. University of Wisconsin Archives.

4-H Club Knoll-Analysis of Integrity

Summary

The 4-H Club Knoll was an important ceremonial area from 1929 well into the 1960s. Throughout the 1930s, in a ceremony based on imagined Native American traditions, 4-H club members brought handfuls of soils from their representative counties, mixed the soils, and planted a tree in commemoration of a significant individual. While this area retains integrity, the new Microbial Sciences building affects the visual relationship between the site and areas to the west. The knoll, situated east of the Hiram Smith/King Hall cluster, and along the western edge of Observatory Hill, links historic buildings, Hiram Smith Hall, King Hall, and Agricultural Hall, with a significant effigy mounds cultural site. This area retains a quiet solitude, and has structures, including the stone stair, path and circular bench, that contribute to the historic landscape.

Land Use

The 4-H Club Knoll, officially dedicated in 1930, was an integral part of the state's 4-H week through the 1960s. Each summer the knoll was the site for the week's opening or closing ceremony.²¹¹ Ceremonial trees were planted on the knoll until the onset of World War II in 1941. A promotional pamphlet anticipated the return of the ceremonial plantings in 1948 but it never occurred.²¹² The knoll no longer plays a part in the annual state 4-H meetings.²¹³ Today, the knoll functions as an area of solitude and repose for students and faculty. The circular stone bench surrounding the memorial sugar maple tree provides a quiet focal point amidst an increasingly urbanizing campus.

Spatial Organization

The spatial arrangement of the knoll remains consistent with its historical period. The informal arrangement of plantings, natural stone steps, circular bench, stone walkway, and boulder marker illustrate a landscape aesthetic inspired by the Friends of Our Native Landscape in the 1930s. The knoll's important spatial relationship to Agricultural Hall, the Hiram Smith/King Hall cluster, and the two effigy mounds on Observatory Hill remain.

Vegetation

In 1929, during the annual state meeting of 4-H members at the university, a Norway pine (*Pinus resinosa*) was planted on the knoll between Agricultural Hall and the Hiram Smith/King Hall cluster. The knoll was dedicated in 1930 and a granite boulder

²¹¹ 4-H Club Records, 1914-1968, series 9/5/1-12, University of Wisconsin-Madison Archives.

²¹² "The Agriculture Tour of 1948," pamphlet published by the College of Agriculture, provided by Horticulture Professor Emeritus Edward Hasselkus, references the 4-H Knoll and the possible resumption of the tree planting ceremony.

²¹³ Catherine Dammann conversation with Pat Harrington, Director of the State 4-H Clubs, 2004.

commemorated the event. Today the marker remains surrounded by junipers, just as it was at its installation.²¹⁴ Inspired by the imagined rituals of Native Americans on Observatory Hill, the 4-H Club group planted one tree, mostly evergreens, each year in an elaborate ceremony. The annual plantings included white spruce (*Picea glauca*), Douglas fir (*Pseudotsuga menziesii*), Canaerti juniper (*Juniperus virginiana* 'Canaerti'), and Scotch pine (*Pinus sylvestris*). The Scotch pine was dedicated to John Muir in 1938 (extant). Many of the ceremonial trees still remain on the knoll, but others have been removed. A sugar maple dedicated to Ransom Moore, father of Wisconsin's 4-H movement, is the major focal point on the knoll today. Numerous Douglas firs, planted in the early 1930s, also remain. Mature arborvitae may pre-date the knoll's function as a 4-H Club site.

Circulation

Pedestrian circulation routes define the boundaries of the 4-H Club Knoll. The main walkway from Agricultural Hall to the Hiram Smith/King Hall cluster has existed since the early 1900s. Following the planting of the honorary maple tree for agronomist Ransom Moore in 1941, a flagstone walk, stairs, and seating area were built for the 4-H Club Knoll.²¹⁵ Today the flagstone walkway meanders through the knoll, and the circular stone bench continues to surround the maple. The knoll is on a moderately traveled circulation route that leads to the dormitories along the lakeshore, Agricultural Hall, the Smith/King Hall cluster, and the eastern and western campus. The pedestrian route then links to the walkway along the Observatory Hill ridge.

Views

The vista from the knoll was incorporated into the symbolic ceremonial activities held by the 4-H Club. Sunrise and sunset services as well as tree planting dedications were cognizant of the views to Lake Mendota and the surrounding landscape.²¹⁶ The memorial to Ransom Moore was in a direct site line to the agronomy department in the building that now bears his name-Moore Hall. This view was later blocked by the construction of the E.B. Fred Hall and after its demolition, by its replacement, the Microbial Science building.

²¹⁴ "The 4-H Club Knoll," *Wisconsin Country Magazine*, June 1934, 11.

²¹⁵ Marjorie L. Gleason and William E. Gleason, *The Father of Wisconsin 4-H, The Ransom Asa Moore Story*, (Battle Lake, Minnesota: Accurate Publishing and Printing Inc, 1989).

²¹⁶ 4-H Club Records, 1914-1968, series 9/5/1-12, University of Wisconsin-Madison Archives.

Table 2: Contributing Features: Linden Drive character area

<i>Contributing Feature</i>	<i>Description</i>	<i>Condition</i>
1645 Linden Drive	Constructed in 1868 as the farm superintendent's house, the building was moved to its present location in 1901. It served as a residence until 1947. It was renovated in the early 1990s.	Fair
Aust Rock Garden	Constructed in the early 1930s, after the northeastern addition to Agricultural Hall was completed. Franz Aust supervised the planting.	Poor
Horse Barn	First building constructed on the farm in 1867-68. Expanded in the 1880s and then renovated in 1899 by architect J.T. Jennings.	Fair
Horticulture Building	1910 by Laird and Cret. Italian Renaissance Revival. Two later additions: Moore Hall-Agronomy in 1931 and Plant Sciences in 1983.	Good
Linden Drive and street trees	Constructed in 1869. The drive was widened and numerous trees replanted in 1916.	Fair
Marlatt Rock Garden	Constructed in the late 1920s, under the supervision of campus landscape architect Franz Aust.	Fair
Nancy Nicholas Hall	1912-1914, Italian Renaissance Revival by Warren Laird and Paul Cret, with an addition in 1952 and 2011.	Good
Ornamental Lawn	The lawn that once extended from the horse barn to Agricultural Hall was installed in the early 1900s. Subsequent construction has significantly altered this spatial connection.	Fair
Stock Pavilion	1909 by Warren Laird and Paul Cret, English Tudor Revival.	Good

Table 3: Non-contributing features: Linden Drive character area

<i>Non-Contributing Feature</i>	<i>Description</i>	<i>Condition</i>
Animal Health and Biomedical Sciences	Completed 1965. While modern in style, the building's setback respects the historic lawn adjacent to the .	Good
Babcock Memorial Garden	Garden memorial to Stephen Babcock re-located in 1952.	Poor
Bock Laboratories	Completed 1966. This seven-story high-rise is sited between Agricultural Engineering and the Horticulture buildings.	Good
Microbial Sciences	Completed 2007. This large building intrudes on the setback dictated by the historic 1908 Laird and Cret master plan.	Excellent
Russell Laboratories	Constructed in two phases in 1965 and 1990 the first high-rise building on the agricultural campus.	Good
US Dairy Forage Research Center	Completed 1981. Houses United States Department of Agriculture research programs.	Good
Van Hise Hall	Completed 1967. This 19-story building has minimal pedestrian and landscape relationship with Linden Drive	Good

Table 4: Contributing features: Western Observatory Hill character area

<i>Contributing Feature</i>	<i>Description</i>	<i>Condition</i>
4-H Club Knoll	Dedicated in 1930, the ceremonial tree planting on the knoll was an integral feature of the annual state 4-H club meeting in Madison until 1941. The Ransom Moore sugar maple (1941) and the John Muir Scotch pine (1937) are two of the numerous remnant trees on the site today.	Good
Agricultural Bulletin	Designed by J.T. Jennings, of the Richardson Romanesque style, in 1899.	Good
Agricultural Hall	Designed by J.T. Jennings, dedicated in 1903, the building reflected the growing aesthetic influence of the City Beautiful Movement on the agricultural campus.	Good
Hiram Smith Hall	Designed by Ferry and Clas in 1892-93. The Queen Anne style building was the first permanent dairy school in the United States.	Good
Hiram Smith Hall Annex	Designed by Arthur Peabody, the Tudor Revival building was dedicated in 1910.	Good
Hiram Smith/King Hall Courtyard	The formal courtyard was not established until after the construction of the Soils building in the 1915, reflecting the influence of the Laird and Cret master plan.	Fair
King Hall	Constructed in two phases in 1894 and 1895. Designed by architect J.T. Jennings in the Richardson Romanesque style.	Good
Soils	Designed by Warren Laird and Paul Cret and completed in 1915.	Good

Table 5: Non-contributing features: Western Observatory Hill character area

<i>Non-Contributing Feature</i>	<i>Description</i>	<i>Condition</i>
Ash receptacles	Exposed aggregate and form incompatible with historic character of the area.	Good
Bike racks at Hiram Smith Hall	Bike racks are placed against the front of the building (west side)	Good
Exterior light fixtures	Contemporary style is not compatible with the architecture of the buildings	Good
King Hall greenhouses	Greenhouses used for academic and campus physical plant functions.	Fair

LANDSCAPE TREATMENT

Approaches to treatment

The Secretary of the Interior is responsible for establishing professional standards and providing advice on the stewardship of cultural resources listed in or eligible for the National Register of Historic Places. The secretary's standards define four basic approaches for treatment of historic landscapes:²¹⁷

- **Restoration** is the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period in time. This includes reconstruction of missing features from the restoration period, and removal of features from all other periods. The approach can be considered only when the property's significance during a particular period of time outweighs the loss of extant elements from other historical periods; and when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned.²¹⁸ Restoration is not an appropriate approach for the Agricultural Campus Historic Landscape because adequate documentary evidence does not exist to restore the property to one period. The landscape retains extant elements related to multiple periods of significance, and contemporary needs may require alterations.
- **Reconstruction** is the act or process of using new construction to depict a non-surviving site, landscape, building, structure, or object as it appeared at a specific period of time in its historic location. The approach is appropriate only when the property's significance during a particular period of time outweighs the potential loss of extant features that characterize other historical periods. In addition, there must be substantial physical and documentary evidence for the work, and the work must be clearly identified as a contemporary re-creation.²¹⁹ The Agricultural Campus Historic Landscape is not eligible for reconstruction because adequate documentary evidence does not exist to reconstruct the property to one period. The landscape retains extant elements related to multiple periods of significance, and contemporary needs require alterations.
- **Preservation** involves applying measures to sustain the *existing* form, integrity, and materials of a historic property. This approach focuses upon stabilizing and protecting extant historic resources, rather than replacing missing elements. It is appropriate when a historic property is essentially intact and does not require extensive repair or replacement; depiction at one particular period of time is not

²¹⁷ Birnbaum, Charles A. and Christine Capella Peters, 1996. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. Washington DC: Department of the Interior, National Park Service, 3-5.

²¹⁸ *Ibid.*, 89-90.

²¹⁹ *Ibid.*, 127-129.

appropriate; and when continuing or new use does not require additions or alterations.²²⁰ Preservation is not an appropriate management philosophy for the Agricultural Campus Historic Landscape because alterations have been made to the landscape and structures that are not consistent with the historic significance of the site.

- The act or process of **rehabilitation** allows repairs, alterations, and additions necessary to enable a compatible use for a property as long as the portions or features which convey the historical, cultural, or architectural values are preserved. This approach is appropriate when depiction of one period is not appropriate; repair or replacement of deteriorated features is necessary; and alterations or additions are needed for a new use.²²¹ Rehabilitation is the most appropriate management philosophy for the Agricultural Campus Historic Landscape. This philosophy has been selected because of the presence of non-contributing landscape elements and the need for alterations within the district to improve the integrity of the landscape and to accommodate contemporary use.

Management Concerns

The identification of a landscape as one that has historic significance does not necessarily lead to the protection of that resource. The entity in charge of managing the landscape, in this case the University of Wisconsin, can serve as a guardian for the resource by carefully considering the significant extant resources and implementing a management plan designed to retain integrity related to historic significance. Given that the main mission of the university is education and research, the current and future needs of the university must be considered when directing management and treatment of these resources.

Management concerns include:

1. The agricultural campus is not an easily defined or understood as an historic resource. The landscape includes non-contiguous resources that relate to a variety of historic themes.
2. Conflicts exist between automobile, bus, bicycle, and pedestrian traffic within the agricultural campus.
3. The trees planted along Linden Drive are threatened by insects, diseases, pollution, and compaction.
4. The Hiram Smith/King Hall courtyard infrequently used by pedestrians traveling between the lakeshore residence halls and Agricultural Hall to the southwest. The university's physical plant vehicles also use the courtyard drive to reach their greenhouse facilities adjacent to the Soils building. The current layout of sidewalks/drives in the courtyard area leads to potentially unsafe conditions.
5. The current status of the mounds that were reported near Agricultural Hall is unknown. There is some possibility that mound remnants are still intact in the

²²⁰ Ibid., 17-18.

²²¹ Ibid., 47-48.

vicinity of Agricultural Hall. This mound group was formerly referred to as 47DA-820; however as of 2010 these mounds have been consolidated with 47DA-571(now designated Observatory Hill/Agricultural Hall Mound Group.)

Treatment Recommendations:

1. Rehabilitation is the recommended treatment philosophy for the historic landscapes.
2. All planning and design projects related to this landscape should be developed through careful consideration of the Cultural Landscape Report for the campus; the campus master plan; and the master plan for the Lakeshore Nature Preserve.
3. Manage the landscapes based on the treatment recommendations provided and according to the management zones illustrated in Figure 119.
4. Consider developing an interpretive plan for the historic landscapes.
5. Archaeological Recommendations:
 - Conduct additional archival review to locate additional information regarding the location/status of the reported burial mounds near Agricultural Hall
 - No earthmoving activities should be conducted on or near 47DA-571 without additional testing and monitoring by a professional archaeologist. This includes tree and brush stump removal, tree and plant transplants, installation of utilities, road maintenance, and the installation of facilities such as park benches, paved or unpaved paths, or the construction of buildings.
6. Preserve the contributing resources within the historic landscapes.
7. Prepare a National Register Nomination for an agricultural campus historic district. Consider developing a multiple property nomination for the University of Wisconsin-Madison campus to provide an overall framework for nominating historic buildings, landscapes and archaeological sites on campus.
8. Consider options for adaptive re-use of the contributing landscapes and structures within the historic landscapes.
9. Develop and implement landscape design guidelines to ensure that important landscape features are preserved:
 - Establish a building setback along the northern side of Linden Drive that is consistent with Agricultural Hall and Nancy Nicholas Hall.
 - Develop a site plan for the agricultural campus that indicates locations for site amenities and responds to underground utilities.
 - Address universal accessibility issues, while carefully considering impacts on historic resources.
 - Develop planting plans for Linden Drive, Henry Mall, and the Hiram Smith/King Hall Cluster. As part of the development of these plans, an analysis of existing vegetation condition as compared to historic vegetation should be conducted.
 - Develop a transportation plan.

- Provide direction regarding views and visual relationships between historic resources and other elements.
10. Develop and implement architectural design guidelines to ensure that the design style, materials, colors, textures and workmanship applied to new development (of landscapes and structures) within the agricultural campus compliments the historic resources.
 11. Develop a review process for minor alterations within the agricultural campus.

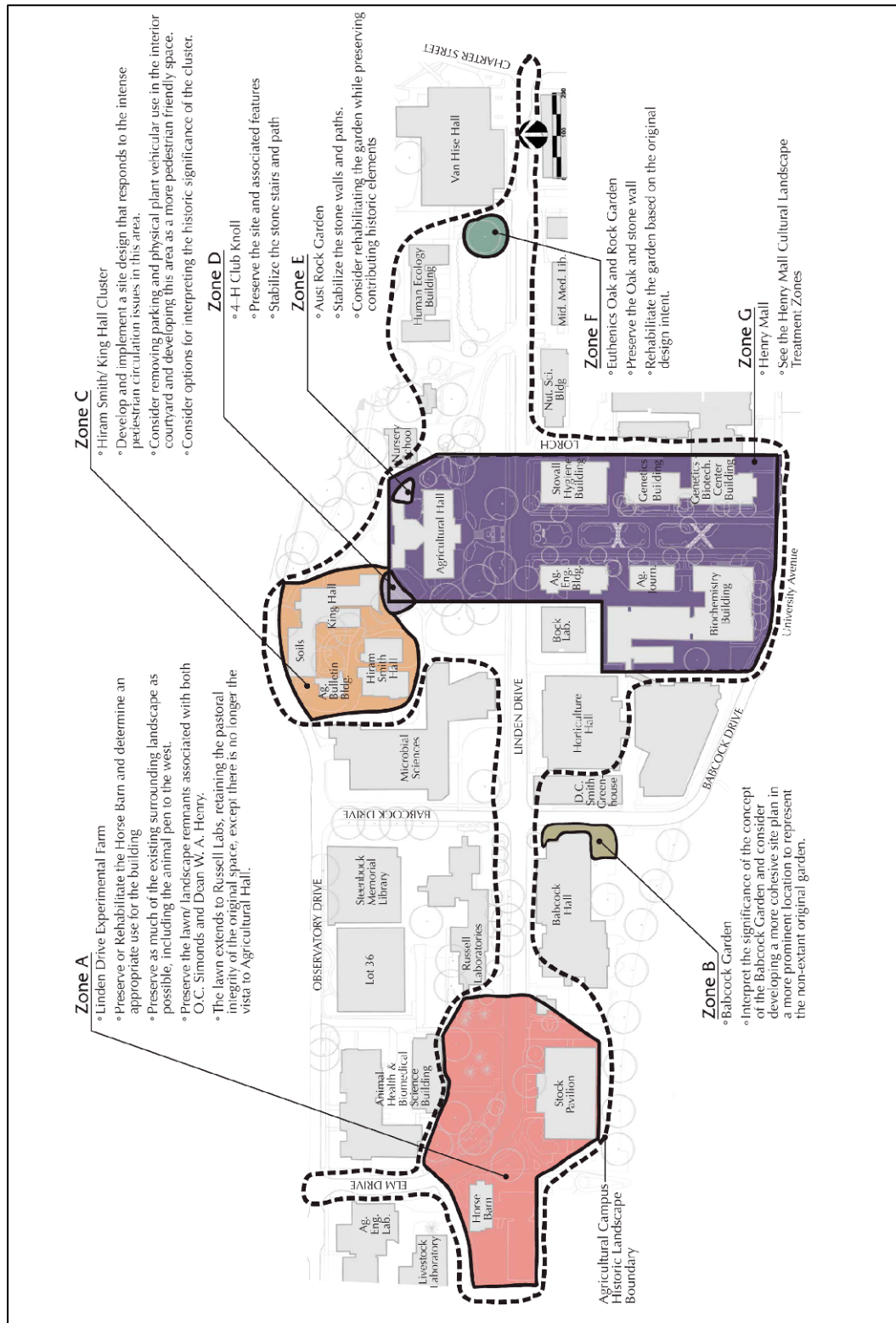


Figure 118: Agricultural Campus Treatment Zones, 2005.

Zone A: Linden/Elm Drives Farm Remnant

1. Preserve or rehabilitate the horse barn and determine an appropriate use for the building.
2. Preserve as much of the existing surrounding landscape as possible, including the animal pen to the west of the horse barn.
3. Preserve the ornamental lawn remnant associated with both O.C. Simonds and Dean Henry. The lawn extends to Russell Laboratories and retains the pastoral integrity of the original space even though there no longer an uninterrupted vista to Agricultural Hall.
4. Maintain the two memorial trees, one for Frank Kleinheinz (bur oak), and the other for Alex Alexander (elm), on the lawn remnant. Both have boulders that commemorate their significance.
5. Maintain the Japanese tree lilacs planted along Linden Drive. Following their natural demise, they should not be replaced.
6. Remove the grouping of four common lilacs that are planted adjacent to the Japanese tree lilacs.
7. Restore the conifer grove on the eastern side of the entry walk by the Animal Health and biomedical Sciences to its early 1900s arrangement.
8. Preserve the alignment of Linden Drive.
9. Consider replacing the deciduous street trees along Linden Drive.
10. Consider re-establishing a visual link between the Dairy Barn and the horse barn.

Zone B: Babcock Memorial Garden (not historic)

1. Consider relocating the Memorial Garden to a more prominent site.
2. Develop a planting plan that creates a garden corridor on Babcock Drive to visually connect this garden with the Allen Centennial Garden.
3. Strive to create a cohesive feeling that represents the importance of horticulture to the College of Agricultural and Life Sciences.
4. Interpret Stephen Babcock's hollyhocks for the public.

Zone C: Hiram Smith/King Hall Cluster

1. Develop a site design for the courtyard that responds to the intense pedestrian circulation issues in this area.
2. Consider removing parking in the interior courtyard, and developing this area into a more pedestrian-friendly space. Include site amenities that are consistent with the historic character of the space.
3. Recommend appropriate site amenities, including lights, paving, and plants.
4. Consider strengthening the visual and pedestrian connections between this courtyard with the 4-H Club Knoll, Agricultural Hall, Linden Drive and Observatory Hill.
5. Consider options for interpreting the historic significance of the cluster.

Zone D: 4-H Club Knoll

1. Preserve the site and associated historic features.
2. Label the sugar maple dedicated to Ransom Moore to call attention to its significance. The tree was planted in 1941 during a ceremony conducted by Professor Laurence Graber.
3. Repair the flagstone stairs and path.
4. Any tree removal in the area should be reviewed. Many trees on the site have historical significance, specifically the John Muir Scotch pine, and the Ransom Moore sugar maple.
5. Educate the current 4H-Club leadership about the importance of the knoll in 4H-Club history.

Zone E: Aust Rock Garden

1. Consider rehabilitating the garden to preserve intact historic elements and create an outdoor classroom/gathering space.
2. Encourage appropriate use of the outdoor classroom/gathering space.
3. Stabilize the stone walls and paths.
4. Consider implementing a maintenance plan for the upkeep of this garden.
5. Consider placing the responsibility for maintaining this garden under the direction of the Departments of Horticulture and Landscape Architecture.

Zone F: Marlatt Rock Garden

1. Preserve the stone wall.
2. Monitor and preserve the Euthenics oak.
3. Consider implementing a maintenance plan for the upkeep of this garden.
4. Consider placing the responsibility for maintaining this garden under the direction of the Departments of Horticulture and Landscape Architecture.

Zone G: Henry Mall: See the *Henry Mall Cultural Landscape Inventory*.

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