

City of Madison Landmarks Commission
LANDMARKS AND LANDMARK SITES NOMINATION FORM

Name of Building or Site

| | |
|---|-----------|
| Common: | Historic: |
| University of Wisconsin Armory And Gymnasium | Same |

Location

| | |
|---|----------------------|
| Street Address: | Aldermanic District: |
| 716 Langdon Street Madison, WI 53706 | Eighth |

Classification

Type of Property:

Building

| | |
|------------------|--------------|
| Zoning District: | Present Use: |
| R5 | Educational |

Current Owner of Property

Name(s):

Board of Regents, University of Wisconsin System

| | |
|---|-------------------|
| Street Address: | Telephone Number: |
| 1860 Van Hise Hall Madison, WI 53706 | (608) 262-2324 |

Legal Description

| | |
|------------------------|--|
| Parcel Number: | Legal Description: |
| 0709-143-0301-4 (part) | East 15.0 feet of Lot 7, & all Lots 8 7 9, Block 2, Original Plat of Msn |

Condition of Property

Physical Condition:

Good

| | |
|-----------------------|-------------------------|
| Altered or Unaltered? | Moved or Original Site? |
| Altered | Original site |

Wall Construction:

Sandstone foundation and load-bearing brick walls

City of Madison Landmarks Commission
LANDMARKS AND LANDMARK SITES NOMINATION FORM

-1-

Name of Building or Site

Common:

Historic:

University of Wisconsin Armory and
Gymnasium

Same

Location

Street Address:

Aldermanic District:

550 North Park Street
Madison, WI 53706

Eighth

Classification

Type of Property:

Building

Zoning District:

Present Use:

R5

Educational

Current Owner of Property

Name(s):

Board of Regents, University of Wisconsin System

Street Address:

Telephone Number:

1860 Van Hise Hall
Madison, WI 53706

(608) 262-2324

Legal Description

Parcel Number:

Legal Description:

0709-143-0301-4 (part)

East 15.0 feet of Lot 7
& all Lots 8 & 9, Block 2,
Original Plat of Madison

Condition of Property

Physical Condition:

Good

Altered or Unaltered?

Moved or Original Site?

Altered

Original Site

Wall Construction:

Sandstone foundation and load-bearing brick walls

Describe Original and Present Physical Appearance and Construction

The University of Wisconsin Armory and Gymnasium (Armory) is located on the north side of Langdon Street between Park and Lake Streets on the eastern edge of the campus. The Armory was begun in 1892 and opened in 1894. The building is composed of three rectangular masses. The main section of the building is a four story basilican mass. South of the basilican section there is a two story headhouse. A two story section is connected to the west facade of the basilican section. The west section was not included in the original 1892 design, but was incorporated into the plans in 1893 and completed at the same time as the rest of the building. The Armory was designed by the regionally prominent architectural firm of (Allan) Conover and (Lew) Porter in the "castellated medieval fortress" variation of the Romanesque Revival style then favored for armory design. The Armory features a rusticated coursed sandstone ashlar foundation and load-bearing red brick walls in common bond with sandstone trim. Distinguishing features include stepped gables, turrets and towers with corbelled and crenellated battlements, and broad arched entryways on the south and west facades.

The basilican section measures 96 by 165 feet. It has a central stepped gable roof, its ridge perpendicular to Langdon Street, and is flanked on either side by a lower shed roof. A clerestory, originally surfaced with slate and now covered with asphalt shingles, separates the upper and lower roofs. The flat roofed headhouse measures 24 by 109 feet. The flat roofed west section measures 24 by 44 feet. There is a four-story tower with corbelled and crenellated battlements on each corner of the Armory. A rusticated coursed sandstone ashlar foundation unifies the three sections. The Armory is built of load-bearing red brick in common bond trimmed with sandstone. The narrow joints are filled with red-tinted mortar. All the sloped roofs are clad with asphalt shingles. It is uncertain when the original slate roofing was replaced. The flat roofs are built-up. Sandstone string courses appear above the first floor on the north and south facades. There is another at the third floor on the east and west facades and the north towers. A brick corbel table, surmounted by a sandstone string course which wraps around the outer turrets, appears in each gable end and on the west section. Originally, there were three large skylights in the gable roof. They were probably removed when the slates were replaced. The original skylight on the headhouse roof has been retained. The fenestration pattern is symmetrical, except on the south facade. The Armory has both round-arched and flat-arched window openings, most with wood double hung sash. Most of the round-arched openings, primarily on the second and fourth floors, hold one or two flat-headed sash windows and a semicircular transom. There are multipaned hoppers in the east facade clerestory and at the third floor, except on the north facade, where there are casements. Nearly all the window openings have

brick lintels and sandstone sills. All the doors on the first floor are wood; only those on the west facade are original. Above the first floor, steel doors give access to the fire escapes. A modified 1906 steel fire escape obscures much of the north (rear) facade. Simple steel escape ladders rise to the clerestory on the east and west facade.

On the south (front) facade of the Armory, a stepped parapet rises from the edge of the headhouse roof to each tower. There is a turret with corbelled and crenellated battlements on either end of the gable. A third identical turret corbels out of the center of the gable from the corbel table and rises above the roof line. A sandstone string course runs around each tower forming a continuous sill at the second story. It continues across the main wall of the headhouse, stepping up to accommodate the entrance portal and providing a sill for the windows above the portal. The main entrance is set west of center within a large round arched portal framed with gauged brick. Deeply recessed within the portal is a round arched surround with replacement doors and windows. Originally, the main entrance featured a pair of massive vertical plank wood doors with quarter round heads decorated with steel plate and rose-head nails in imitation of ornate strap hinges. The doors were flanked by a pair of smaller similar vertical plank doors and surmounted by three curving windows with scrolled iron grilles. East of the portal is a rectangular stone plaque, inscribed: "ARMORY AND GYMNASIUM OF THE UNIVERSITY OF WISCONSIN 1893 ERECTED BY THE BOUNTY OF THE STATE." The plaque has a stone border enriched with an egg and dart molding.

The north (rear) elevation of the Armory features a stepped gable and three turrets flanked by a pair of towers just like the south elevation. Three massive brick and sandstone wall buttresses were added in 1905, and the first floor window openings reduced. The buttresses taper, becoming flush with the wall just below the sandstone string course that forms a continuous sill for the second story windows. The buttresses divide the wall into four columns of windows. Sandstone string courses run around the towers at the third floor.

The east elevation is made up of six bays with a tower on either end. In each bay, a brick buttress tapers into the wall just above the first floor lintels. There is a series of regularly spaced window openings on the first floor. The sills were raised when an annex to the Armory was built on this facade in 1911.

The west elevation is almost identical to the east elevation. However, there are only two buttresses on the west elevation, and the windows in the clerestory have been covered with asphalt shingles. The addition of the west section, which projects from this elevation just north of center, eliminated the windows in the three central bays on the first two floors. South of the west

section, there is pair of original wood doors which combine diagonal and vertical planks. On each face of the west section there is a stepped parapet. There is a small tower with corbelled and crenellated battlements on each of the northwest and southwest corners. A broad flight of concrete steps leads up to four pairs of paneled wood doors in the west face. The south face features a large round arched entrance portal. There is a pair of original vertical plank doors with imitation strap hinges, surmounted by a semicircular transom, deeply recessed within the portal.

The Armory's interior plan is laid out as follows: The headhouse consists of a central lobby and broad wood staircase with small rooms in the southwest tower, and small rooms and a narrow wood staircase in the southeast tower. This stair is dog-leg to the second floor, and spiral above. On the first floor, the plan of the basilican section consists of a central hall leading to the pool. The pool is flanked by locker rooms. In the southwest corner of this section, the former artillery drill hall has been divided into seven small rooms. The southeast corner contains several small rooms but was heavily damaged by fire in 1970 and so is not currently accessible. The second floor of the basilican section contains the drill hall. The running track is suspended above at the third floor. The gymnasium, flanked by the old shooting galleries, is on the fourth floor. Each of the northeast and northwest towers contain small rooms on each floor. The west section contains a broad, steel-frame concrete stair to the second floor. Several small rooms are tucked under the stairs on the first floor.

The interior of the Armory has a variety of finishes. The outer walls are exposed cream brick, originally unpainted. A few have been plastered. In the drill hall there is red brick below the window sills. Glass panels in metal frames, installed after 1953, create a vestibule just inside the main entrance. Most of the interior walls are vertical board; many have wood framed glass in the upper two feet. There are a few partitions of concrete, concrete block, structural clay tile, gypsum board or sheet metal scattered around the building. Most of the flooring is made up of narrow wood boards. In the heavily fire-damaged southeast section of the building, most of the flooring was destroyed and not repaired. The floors are concrete on the first floor in the west section, around the pool and in the locker rooms flanking the pool. There is ceramic tile north and east of the pool. Wall-to-wall carpet, composition sheet flooring or terrazzo have been installed in a few rooms. The ceilings are nine feet high except in the drill hall (43 feet high) and the gymnasium (26 feet high). Most have been left exposed to show the supporting beams and trusses, and wide wood boards above. A very few rooms have gypsum board, acoustical tile or masonite ceilings. The Armory mixes modern suspended fluorescent lights and older bare incandescent bulbs in porcelain sockets. Most of the rooms have old paneled wood doors

although there are a few steel doors at the exits. The most notable interior doors are the pair opening out of the drill hall. Each heavy paneled wood door is nine-and-a-half feet tall.

The Armory shows good integrity. All exterior alterations predate 1911. Most interior alterations predate 1930. Although many windows have been boarded up or covered over, only the skylights on the roof of the basilican section have been removed. The only modified window openings are on the first floor of the north (1905) and east (1911) facades. On the interior, two of the three significant spaces, the second floor drill hall and the fourth floor gymnasium, are intact. The third significant space, the artillery drill room, has been subdivided into seven smaller spaces with wood and glass partitions that could be removed easily. The plumbing, electrical, heating and ventilating systems have been modified many times.

The Armory is located on the north side of Langdon Street between Park and Lake Streets. A wide sidewalk runs along the shore of Lake Mendota just north of the building. There is a sidewalk and small formal lawn south of the building on Langdon Street. East of the Armory are two modern buildings: the Wisconsin Center (south), built 1958, and the Alumni House (north), built 1967. There is a parking lot west of the building. South and west of the building are other university buildings and spaces, which, together with the Armory, are the original grounds of the University of Wisconsin. This original campus was listed on the National Register of Historic Places in 1974 as the Bascom Hill Historic District (District). The District includes some twenty structures. These span 120 years of the university's history, ranging from the three earliest buildings (built between 1851 and 1857), to Helen C. White Hall (1968). The District represents the development of the University of Wisconsin from a small school with a tiny enrollment in the 1850s, to a world class university with thousands of students. It is an outstanding representative of the development of university education in the United States, and is associated with nationally prominent educators and scholars. Visually, the District is aesthetically pleasing, and grew according to the 1850 campus plan. The Armory and Gymnasium was made a National Historic Landmark in 1993.

City of Madison Landmarks Commission
LANDMARKS AND LANDMARK SITES NOMINATION FORM

6

Original Owner:
Board of Regents, University
of Wisconsin

Original Use:
Armory and Gymnasium

Architect:
Allan Conover and
Lew F. Porter

Architectural Style:
Romanesque Revival

Dates of Construction:
1892-94

Indigenous Materials:

Bibliographic References:

Curti, Merle and Vernon Carstensen. The University of Wisconsin, A History. Two volumes. Madison: University of Wisconsin Press, 1949.

Fogelson, Robert M. America's Armories, Architecture, Society and Public Order. Cambridge and London: Harvard University Press, 1989.

Marguiles, Herbert F. The Decline of the Progressive Movement in Wisconsin: 1890-1920. Madison: State Historical Society of Wisconsin Press, 1968.

Maxwell, Robert S. La Follette and the Rise of the Progressives in Wisconsin. Madison: State Historical Society of Wisconsin Press, 1956.

Mesick Cohen Waite Architects. "The University of Wisconsin Armory and Gymnasium: Historic Structure Report." Draft prepared for the State of Wisconsin Department of Administration, Division of Facilities Development, July, 1992.

Ross, Earle D. Democracy's College. NY: Arno Press and New York Times, 1969 (reprint).

Rudolph, Frederick. The American College and University, A History. NY: Alfred A. Knopf, 1962.

Thwaites, Reuben G. The University of Wisconsin, Its History and Alumni. Madison: J.N. Purcell, 1900.

Form Prepared by

Name and Title: Elizabeth L. Miller
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Planning and Development

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266-6552

Date Nomination was Prepared September, 1994

Significance of the Nominated Property

The Armory is eligible for Madison Landmark status under Criteria 2 and 3. Under Criterion 2 ("identified with historic personages or with important events in national, state or local history"), the Armory is significant as the site of the 1904 Wisconsin Republican Convention, a seminal event in the history of the Progressive Movement. At this convention, Robert M. La Follette's Progressives defeated the Stalwarts for control of the Wisconsin Republican Party. Widespread favorable publicity launched La Follette on the national scene. The controversy engendered by the "Gymnasium Convention," and La Follette's subsequent vindication, led the Progressives to victory that November, giving the Progressives a majority in the 1905 Wisconsin legislature. This allowed the enactment of substantial reforms. In addition, La Follette's principal platform plank, comprehensive direct primaries, was passed in referendum. The direct primary and much of the 1905 legislation was subsequently adopted by many states across the nation.

Under Criterion 3 ("embody the distinguishing characteristics of an architectural type specimen . . ."), the Armory is significant as an outstanding example of two building types developed in the late nineteenth century: the armory; and the gymnasium. On the exterior, it exemplifies the castellated medieval fortress variation of Romanesque Revival that marks it unquestionably as an armory. On the interior it combines late nineteenth century state-of-the-art armory and gymnasium spaces: large open spans for drilling and gymnastics, and several specialized single purpose rooms such as gun room, shooting galleries, commandant's office, bowling alleys, swimming pool, sparring room and trophy room. The combination of these two uses makes the Armory unique. Begun in 1892 and completed in 1894, the Armory is in fair condition and has retained good integrity both on the exterior and interior. Two of the three significant major spaces, the second floor drill hall, and the top floor gymnasium, are unchanged. In contrast, many armories have been extensively altered for reuse, or demolished. The Armory was designed by the regionally-prominent architectural firm of Conover and Porter. The Armory is also significant for its innovative original mechanical heating and ventilation system. Designed by University of Wisconsin Professor Storm Bull, it was a very early version of a constant-volume system with outdoor air free cooling, a system which became standard practice in the 1930s. This type of system was rarely used before World War I because technology was not yet sufficiently advanced to make it work. The Armory's original heating and ventilating system failed and was modified, but most of its original elements remain.

Historical Context

The University of Wisconsin was established by the state

legislature in 1848. The legislature directed that the University be governed by a board of regents and administered by a chancellor.¹

Prior to the Civil War, military training at the University of Wisconsin was sporadic. In 1866, the legislature reorganized the university in accordance with the Morrill Act of 1862. This act authorized land grants to the states for the support of colleges of agriculture and mechanical arts. The act specifically required that colleges include "military tactics" in their curricula. Many Southern states had long supported military training, and laymen and professionals alike felt that this military education had greatly benefitted the South at the opening of the Civil War. Beginning with the 1866-67 school year, all male students were required to undergo military training. The arms were furnished by the university.²

By the end of the academic year 1869-70, a "building for drill and gymnastic exercises" had been completed, at a cost of \$4,000. Located northwest of Bascom Hall, it had a large room measuring about 100 feet by 50 feet and a smaller wing that housed an arsenal and the professor's office. Despite legislative mandate, many students were strongly opposed to military training. They objected to the hours required for drill and to the subordination of one student to another. After 1870, drill was required only of first and second year students.³

Military drill was also seen as important in providing exercise for male students. Other facilities or programs intended specifically for physical education were apparently given little attention at the university until the 1880s. The 1870 "drill and gymnastics" building could not keep pace with the steadily increasing numbers of students and the growing importance of physical education in

¹Arthur Hove, The University of Wisconsin, A Pictorial History, (Madison, WI: The University of Wisconsin Press, 1991), page 7.

²Paul W. Gates, History of Public Land Law Development, (Washington, D.C.: Public Land Law Review Commission, 1968), pp. 22-23; Earle D. Ross, Democracy's College, (1942; reprint ed., New York: Arno Press and New York Times, 1969), pp. 61, 196-96; and Regents' Annual Report (hereafter RAR), 1865-66, p. 3.

³Reuben G. Thwaites, The University of Wisconsin, Its History and Alumni, (Madison: J.N. Purcell, 1900), p. 98; RAR, 1869-70, pp. 3031; 1870-71 Map of Experimental Farm and College Grounds, Merle Curti and Vernon Carstensen, The University of Wisconsin, A History, vol 1 (Madison: University of Wisconsin Press, 1949), pp. 412-419.

university curricula. In 1881, at the behest of the University Athletic Association, the Regents requested that the legislature provide support for a gymnasium for male students. In an 1884 report to the Regents, university President John Bascom called for a new gymnasium, envisioning the gymnasium as also providing "a suitable arsenal for arms."⁴

Bascom's successor, President Thomas Chamberlin, continued to lobby for an armory and gymnasium. Without the knowledge of President Chamberlin, Regent Elisha W. Keyes drew up a bill which was submitted to the Legislature in February, 1889. This bill proposed an appropriation for "an...edifice for the uses of an armory, drill room and gymnasium." Although the bill was not enacted that year, a similar bill, also drawn up by Keyes, was approved by the Legislature on March 12, 1891.⁵

The Regents appointed the Armory Building Committee to oversee the design of the armory and gymnasium. On April 9, 1891, the Regents chose the Langdon Street site. In order to gather information on the latest developments in design, the Regents authorized committee members, President Chamberlin and various professors to visit other institutions. In May, 1891, representatives of the university visited several eastern cities to view armories, and ten university campuses to view gymnasiums.⁶

Colleges began building gymnasiums about 1860. Early gymnasiums were simple in design and soon outgrown. By 1890, the college gymnasium had developed into a complex building with a large span gymnasium and many specialized single purpose rooms.⁷ When the University of Wisconsin was planning its building, the gymnasium at Yale University was considered to be the premier facility. Representatives of Wisconsin visited the Beaux Arts style Yale gym in 1891, and in the early 1890s, it was the only one to which

⁴RAR, 1870-71, p. 15; 1875-76, p. 35; 1878-79, p. 35; 1880-81, p. 7; 1881-61, p. 6; and 1883-84, p. 36.

⁵Wisconsin Senate, Bill S. 199, February 188, 1889, copy in George H. Paul Papers, Box 11, Historical Society of Wisconsin Archives; and Laws of Wisconsin, Chapter 29, March 14, 1891.

⁶Regents' Records (hereafter, R Records), Vol. D, April 9, 1891, pp. 93-94, 96; University of Wisconsin student newspaper The Aegis, May 1, 1891, p. 497 and June 5, 1891, p. 575.

⁷Frederick Rudolph, The American College and University, A History, (NY: Alfred A. Knopf, 1962), pp. 152-55; and H.A. Cushing, "The Development of the College 'Gym,'" Leslie's Weekly, February 18, 1893, p. 67; Moses King, Harvard and Its Surroundings, 3rd. ed. (Cambridge, MA: Charles W. Sever, 1880), p. 37.

Wisconsin writers and speakers compared their own facility.⁸

There were bowling alleys in the basement of the Yale gymnasium. On the first floor was a swimming pool. The main gymnasium, which had an area of 10,000 square feet, took up the top floor. A running track encircled this hall at the gallery level. Yale's floor plan apparently directly influenced Wisconsin's building.⁹

While the exteriors of late nineteenth century gymnasiums were designed in a wide variety of architectural styles, armories were not. A series of riots and violent strikes beginning with the New York City Draft Riots of 1863 caused a fear of class warfare to become widespread among upper and upper-middle class Americans. As a result, there was a surge of armory building beginning in the late 1870s. It was believed that armories would be necessary as places for troops to assemble and arm in order to quell mob violence that would be led by the so-called dangerous classes--socialists, communists and labor unionists. The armory was a new building type. In developing a style for this new building type, architects sought to project an image of force and power that would inspire fear and foster respect for authority among the masses. Architects found the castellated medieval fortress an appropriate image. Its rusticated features were compatible with the Richardsonian Romanesque style, which was then sweeping the country. Should these armories be attacked by mobs, their massive walls, few entries, and strategically placed small windows, towers, turrets and battlements were expected to be practical defenses. The castellated medieval fortress clearly expressed the armory's military function.¹⁰

Among the first armories built in the medieval fortress style was the Seventh Regiment Armory on Park Avenue in New York, which opened in 1880. The Seventh Regiment Armory was vast, with a drill shed containing more than 53,000 square feet and numerous social and recreational spaces for use by the National Guard.¹¹

During the 1880s major armories were erected in Brooklyn, Philadelphia, New York and Boston. Following the lead of the Seventh Regiment Armory, most of these major armories included a

⁸Leslie's Weekly, February 18, 1893, p. 67.

⁹William E. Decrow, Yale University, (Boston: n.p, [189?]), pp. 51, and 53.

¹⁰Robert M. Fogelson, America's Armories, Architecture, Society and Public Order, (Cambridge and London: Harvard University Press 1989), pp. 13-47 and 150-157.

¹¹Ibid, pp. 127-33.

grand hall with ample space for drilling a 1,000-man regiment and for dancing, a gymnasium for exercise, kitchen and dining room, saloon, swimming pool and bowling alleys, library and reception hall. Illustrations and descriptions of these armories that appeared in architectural magazines and in the popular press probably made these armories familiar to both the Wisconsin Armory Building Committee and the architects selected to design the Armory and Gymnasium, Allan Conover and Lew Porter. One such building was the Eighth Regiment Armory in New York City. Begun in 1888 and completed in 1890, it was widely published and seems to have been the inspiration for the exterior appearance of the Wisconsin Armory.¹²

In June 1891, the Madison architectural firm of Conover and Porter was hired to design the Wisconsin Armory. The firm had been established circa 1887 by Allan D. Conover (1854-1919), then Professor of Civil Engineering at the University of Wisconsin, and Lewis F. Porter (1862-1918), who had been Conover's student and had left the university after his junior year to work with Conover. In the spring of 1890, Conover gave up his professorship and devoted his time to the practice of architecture and engineering. Porter operated the firm's branch in Ashland, Wisconsin. Conover and Porter designed buildings in Richardsonian Romanesque, Shingle and Queen Anne style. The partnership dissolved in 1899.¹³

Conover and Porter worked with the Armory Building Committee over the next year to finalize the plans. The working drawings were completed May 14, 1892. In July, 1892, the Regents selected T.J. McCarthy, of Madison, as general contractor. His bid was \$97,373.¹⁴

By January, 1893, the foundation work had been completed and Charles Adams had succeeded Thomas Chamberlin as president of the university. In his report to the Regents four months later, President Adams noted that the plans of the Armory showed floor space well suited for use as a large assembly room which could seat

¹²Ibid, 79-80 and 136-47; and Mesick Cohen Waite Architects, "The University of Wisconsin Armory and Gymnasium: Historic Structure Report," draft prepared for the State of Wisconsin Department of Administration, Division of Facilities Development, p. 9.

¹³Armory Building Committee Minutes (hereafter, ABCM), June 18, 1891, p. 61; and R Records, Vol. C, April 15, 1890, p. 93.

¹⁴Blueprints, on file in the University of Wisconsin Department of Planning and Construction; and R Records, July 25, 1892, p. 74.

nearly three thousand persons. Adams believed that such an assembly room was essential for the university. He recommended changes be made to the 1892 design that would provide additional access to the second floor drill hall. In response, Conover and Porter prepared plans for a section housing a stair to the second floor to be placed on the west side of the building. The plans were approved.¹⁵

The cornerstone was laid on June 20, 1893. While the Armory was under construction, the Armory Building Committee asked Storm Bull (1856-1907), Professor of Steam Engineering, to design a central heating and ventilating system that could be tied into the university's main heating plant. Born in Norway and educated in mechanical engineering in Zurich, Switzerland, Bull was familiar with the late nineteenth century state-of-the-art mechanical systems. Bull's design for the Armory was highly advanced technologically. Effectively, it was a very early version of a constant-volume system with outdoor air free cooling. This type of system was rare before World War I, but became standard practice during the 1930s. Bull used an architectural feature of the Armory's design--the turrets--in his fan-driven forced air system. A slow-moving propeller type fan with a diameter of ten feet drew outside air through screened openings at ground level. These openings had manually-operated gates. Air was heated as it passed over a series of carbon steel steam coils. The fan then moved the air through manually operated bypass dampers and it was distributed, and finally vented, through vertical masonry shafts in the north and south wall turrets. Ducts made of clay sewer pipe returned air to a plenum in the crawl space beneath the first floor and back to the fan. The fan was probably powered by a steam engine located in the crawl space. At a time when electric motors were not yet in general use, fan-driven systems were rare. Modern high-speed centrifugal fans were not possible because there was no way to balance them properly. Keeping the fan speed slow minimized problems caused by vibration but meant that the system would have very little pressure, making it less effective. The first known fan-driven central heating system in the United States was designed by Joseph Nason and installed in the U.S. Capitol Building in 1855. The Congress disliked the system and quickly had it removed. Nason's system was not immediately influential.¹⁶

¹⁵The Aegis, December 2, 1892; and R Records, Vol, C, April 18, 1893, pp. 438-440.

¹⁶Wisconsin State Journal, June 20, 1893; ABCM, September 20, 1893; April 16, 1894, p. 84; April 26, 1894, p. 88; and April 30, 1894, p. 89; Interview with Mark Lentz, PSJ Engineering, August 13, 1992; Interview with Charles Quagliana, Architect, Wisconsin Division of Facilities Management, September 1, 1992; and Charles E. Peterson, ed., Building Early America, (Reading, PA: Chilton

The Armory opened in May, 1894. Classes were canceled and festivities held to celebrate the opening. On the first floor of the Armory, the commandant's office was located in the southwest tower and contained a private stair to the gun room on the floor above. The artillery drill room was located on the west side of the south end; a large locker room was opposite. The north end held a bowling alley (west), the steam-heated swimming tank measuring 80 by 20 feet (central) and a shower room. On the second floor, a small room in the southeast tower was reserved for sparring. The gun room was in the southwest tower, along with a small office for the gym instructor. The drill hall, also reached by the staircase in the west section, occupied almost the entire second floor of the basilican section. It measured 160 by 93 feet and was 43 feet high. A balcony running the length of the south end overlooked the drill hall at the mezzanine level. The running track encircled the basilican section on the third floor. The gymnasium, flanked by rifle ranges, was on the fourth floor. Measuring 160 by 65 feet, the gymnasium was said to be the largest in the country. The ceiling was 26 feet high. (See sketches.)¹⁷

From the outset, the Armory was used for more than university athletic and military functions. Large university functions, such as dances and banquets were held regularly there. Students watched away football games plotted on a "gridograph" in the drill hall. The Armory was the hub of university activity. In addition, the drill hall, for many years the largest space in Madison, was the center for major city and county social and political events. A rally held in October, 1894 at which future U.S. President William McKinley spoke, was probably the first political use. The best known political gatherings at the Armory were the Republican state conventions of 1902 and 1904, at which Robert M. La Follette was renominated governor of Wisconsin. At the May 18, 1904 "Gymnasium Convention," La Follette's Progressive supporters defeated the Stalwarts to gain control of the Wisconsin Republican Party. The Stalwarts withdrew and held their own convention. A lawsuit to determine which convention was the legitimate was finally decided by the Wisconsin Supreme Court in favor of the Progressives.¹⁸

Book Co, 1976), pp. 172-177.

¹⁷The Daily Cardinal, May 11, 17, and 24 1894 and September 19, 1894.

¹⁸The Daily Cardinal, October 9, 1894; October 10, 1894; Albert O. Barton, La Follette's Winning of Wisconsin, 2nd ed. (Madison: n.p., 1924), pp. 200-01, 207; Robert S. Maxwell, ed., Emanuel Philipp, Political Reform in Wisconsin, 2nd ed., (Madison: State Historical Society of Wisconsin Press, 1973) pp. xvii-12; Robert S. Maxwell, La Follette and the Rise of the Progressives in Wisconsin, (Madison: State Historical Society of Wisconsin Press,

Beginning shortly after the Armory opened, several changes were made to the Armory over the years. First, Professor Bull's heating and ventilating system immediately proved problematic. The manual controls in the heating system required constant attention to operate effectively. Whether the system received the supervision it needed is unknown, but it did not keep the building warm. Traditional cast iron standup steam radiators were installed in 1895. More were added in 1897 and 1901. The huge fan was eventually removed, although the masonry shafts and much of the clay pipe ductwork remain.¹⁹

The bowling alleys interfered with military drill and gymnastics. In 1902 they were converted into a locker room. In 1905, the rear wall of the Armory was strengthened with brick buttresses. When the buttresses were built, the bottom two feet of the clerestory windows were bricked in. In 1906, an exterior fire escape was erected on the rear of the building.²⁰

In 1911, a one-story annex was built on the east side of the building. Construction began in the fall of 1911. The Armory's second floor windows were raised to accommodate the annex. While the annex was under construction, four handball courts were built in the drill hall, and five more in the gymnasium. Fire safety concerns led to the remodeling of the staircase in the west section in 1916. A broad stairway running east-west replaced the double flight of stairs that ran north-south. In 1922, the size of the pool was reduced to 20 by 60 feet.²¹

The last major military use of the Armory came in 1918, when the university trained and billeted 900 U.S. Army soldiers in the building. In 1923, isolationism and anti-militarism movements had gained such strength in the state, that Wisconsin became the only state in the country to eliminate compulsory military education for

1956), pp. 28, 53-54, 74-75 and 176-200; and Herbert F. Marguiles, The Decline of the Progressive Movement in Wisconsin, 1890-1920, (Madison: State Historical Society of Wisconsin Press, 1968), pp.75-83.

¹⁹Executive Committee of the Regents, Minutes (hereafter ECM), June 24, 1895 and March 1, 1897, p. 70.

²⁰ECM, October 6, 1902, p. 25 and July 10, 1905; and Arthur Peabody to Riley, March 3, 1906, in Business Administrator, Physical Plant, Correspondence, Box 1.

²¹RAR, 1906-08, pp. 22, 66 and 205; 1910-12, pp. 233-35; Executive Committee Minutes, March 29, 1916; and blueprints dated June 1, 1922, in Business Manager, General Correspondence, University Archives..

male students at a land-grant university. The Armory was used for student registration beginning in 1928. By that time, enrollment in military training had plummeted, and other athletic facilities had been erected. Registration was the only time that large numbers of students congregated in the building.²²

With this severe decline in use, few alterations or improvements were made to the Armory after 1930. By the early 1950s, planning for the demolition of the Armory and its annex was begun. In 1956, the annex was razed. The Armory continued its use as a gymnasium while plans for a new gymnasium were under discussion. With the opening of new athletic facilities in the early 1960s, the Armory was regularly referred to as the "old red gym," and its demolition considered imminent. While various campus groups debated the future of the site, the Armory continued to be used heavily during the 1960s as a gym and as headquarters for the Reserve Officers Training Corps (ROTC). However, by 1967, space was at a premium on campus, and the Regents began to consider the possibility of retaining the Armory and finding new uses for it.²³

In 1970, the Armory was firebombed by arsonists protesting the presence of the ROTC on campus. The first floor southeast corner was heavily damaged; most of it was never repaired. Today, the Armory is still used for recreational purposes. The ROTC moved to another building in 1973.²⁴

Historical Significance

The Armory is historically significant under Criterion 2. On May 18, 1904, at the "Gymnasium Convention," Robert M. La Follette was renominated governor of Wisconsin defeated the Stalwarts to gain control of the Wisconsin Republican Party. The Stalwarts withdrew and held their own convention. A lawsuit to determine which convention was the legitimate was finally decided by the Wisconsin Supreme Court in favor of the Progressives. The 1904 Wisconsin Republican Convention was a seminal event in the history of the Progressive Movement. National attention was directed to the Wisconsin Progressives, and favorable publicity launched La

²²Edwin G. Pike, "Historical Update of the Reserve Officers' Training Corps, University of Wisconsin-Madison," May 1, 1975, pp. 4-5.

²³Floor plans, Department of Buildings and Grounds, February, 1928, revised November 1953; ECM, Vol. 17, May 12, 1956, p. 4; The Daily Cardinal, June 17, 1960 and July 19, 1963; and Regents' Minutes, Vol. 34, January 13, 1967, p. 8; February 10, 1967, p. 9; and May 5, 1967, p. 4.

²⁴Capital Times, January 3, 1970.

Follette on the national scene. He would later resign the governorship in December 1905 to become a U.S. Senator. On the heels of the "Gymnasium Convention" controversy, and La Follette's subsequent vindication, the Progressives swept to victory in November 1904 and dominated the 1905 Wisconsin legislature. This legislature enacted a large number major reforms including a bill creating a commission of experts to oversee the railroads, a measure to reduce the lobbying influence of special interest groups, and a civil service law. In addition, La Follette's principal platform plank, comprehensive direct primaries, was passed in referendum in November, 1904. With this primary election law, Wisconsin became the first state in the nation in which the people directly elected all candidates for public office. Optional and piece meal primaries did already exist in a few states, but this marked the first time that a comprehensive statewide system was put in place. Wisconsin instantly surged to the forefront of the national Progressive Movement. The direct primary and much of the 1905 legislation provided a model which was adopted by states across the nation.²⁵

Architectural Significance

The Armory is architecturally significant at the national level under Criterion 3. The Armory is an outstanding example of two building types developed in the late nineteenth century: the armory, and the gymnasium. This combination of uses came at a time when armories, a peculiarly American building type, were designed exclusively for the use of the military. On the exterior, it exemplifies the castellated medieval fortress variation of Romanesque Revival that marks it unquestionably as an armory. On the interior it combines late nineteenth century state-of-the-art armory and gymnasium spaces. Armories of the time featured large open spans for drilling, and single purpose rooms for socializing and recreation. Gymnasiums had large open spans for gymnastics and single purpose rooms for recreation. The combination of these two uses makes the Armory unique. Begun in 1892 and completed in 1894, the Armory is in fair condition and has retained good integrity both on the exterior and interior. Two of the three significant major spaces, the second floor drill hall, and the fourth floor gymnasium, are unchanged. In contrast, many armories have been extensively altered for reuse, or demolished.²⁶

The Armory is also significant for its original mechanical heating and ventilation system. Designed by University of Wisconsin Professor Storm Bull, it was an early version of a constant-volume

²⁵Barton, pp. 200-201; Maxwell, ed., pp. xvii-12; Maxwell, pp. 28, 53-54, 74-75 and 176-200; and Marguiles, pp. 75-83.

²⁶Fogelson, pp. 220-231.

City of Madison Landmarks Commission
LANDMARKS AND LANDMARK SITES NOMINATION FORM

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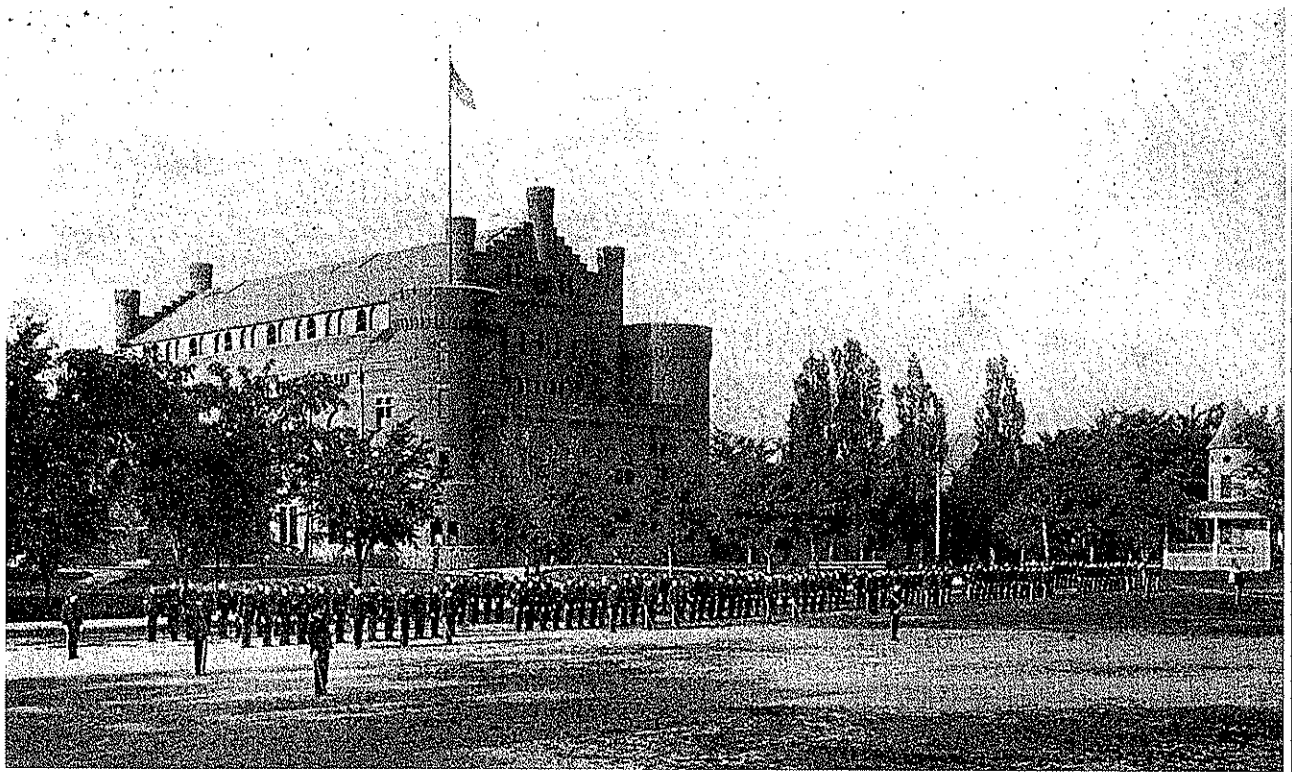
system with outdoor air free cooling, which used the building's turrets as vent stacks. The constant volume system was rarely used before World War I, but became standard practice in the 1930s, when technology caught up with the idea. The Armory's original heating and ventilating system failed and was modified, but most of its original elements remain.

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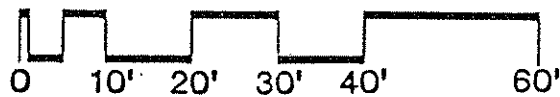
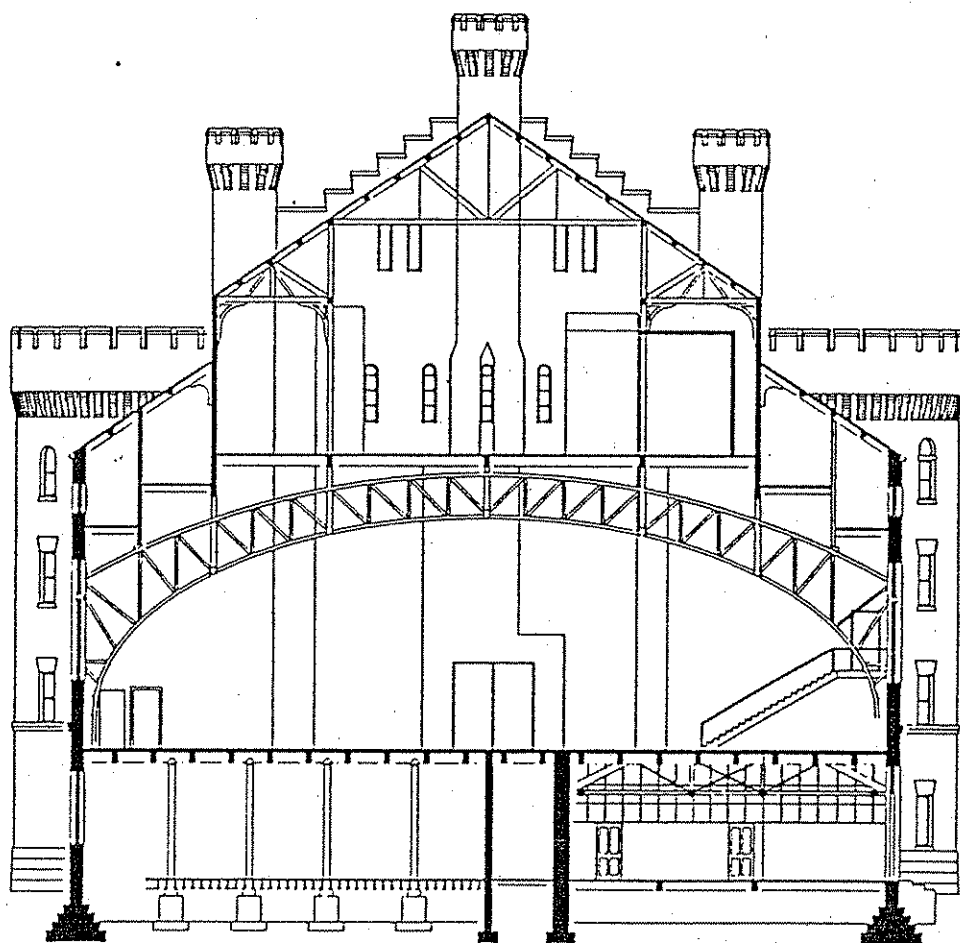
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University Armory/Gymnasium

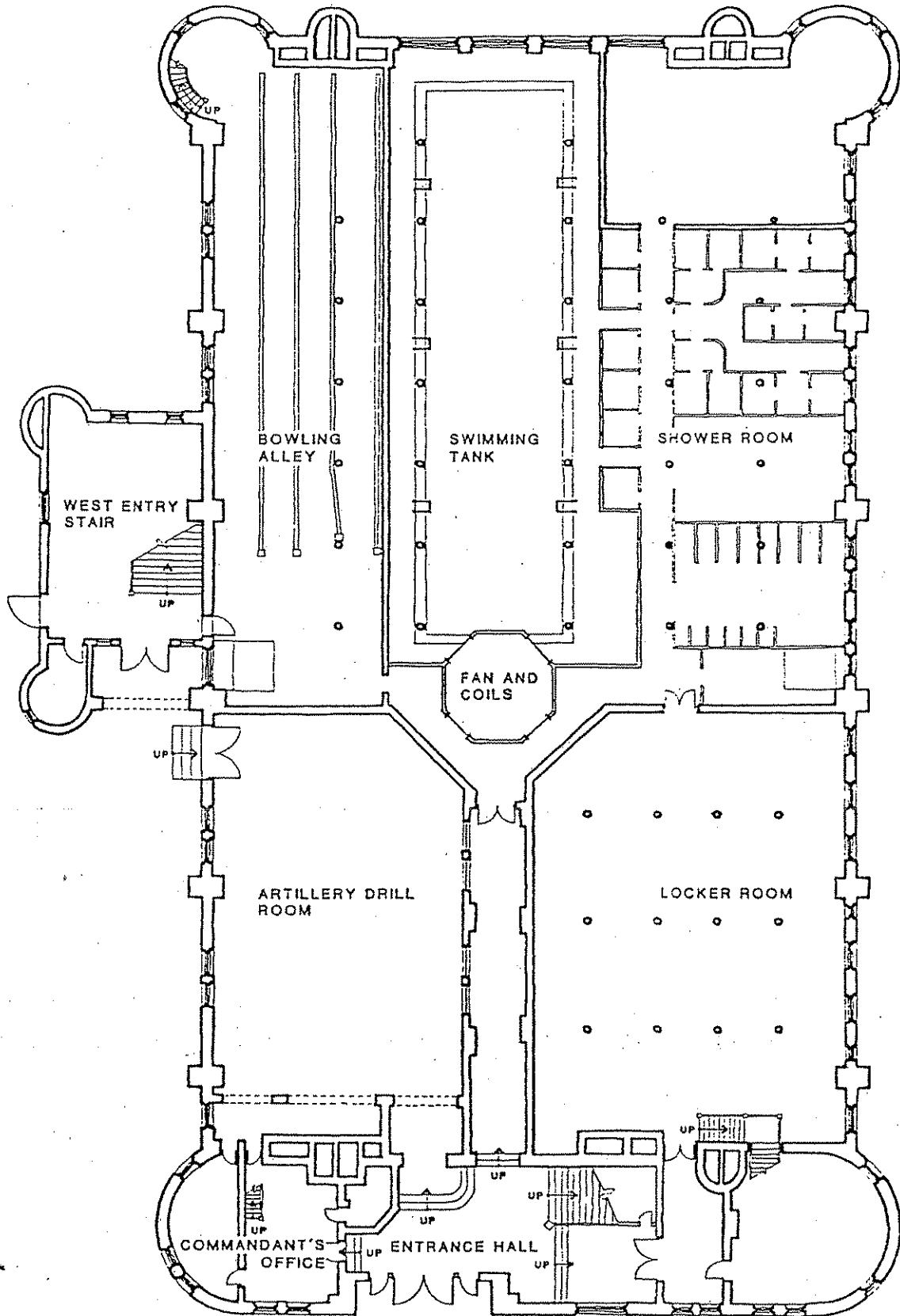
The Red Gym looks like a Norman fortress for a reason. Reflecting fears over the serious civil disorders of the time, those who approved its 1891 funding referred specifically to the need for an armory. But the campus had also been without indoor athletic facilities since the old wooden gym on College Hill burned, and university officials touring armories that also served as gymnasiums on eastern campuses realized how compatible the two functions were. So the plans by Alan Darst Conover and Lew Porter incorporated this dual use, with everything from a drill hall and rifle ranges to running track, swimming pool, and batting cage. But it was President Adams who noticed one unmet need — a public assembly hall to seat several thousand, which he proposed for the second floor. It was thanks to Adams that the facility could house such historic events as the 1902 and 1904 Republican conventions that renominated Robert La Follette for governor and be made available to the Attic Angels for a charity ball to open Madison General Hospital. There were apparently some limits to the university's support for free speech in the facility; while the Wisconsin League of Progressive Women was denied its use in 1920 and author Upton Sinclair was allowed to speak in 1922 only when he promised to avoid certain controversial topics, William Jennings Bryan was allowed to denounce Darwinism in 1921 as "the cause of a preponderance of brutality over brotherhood in present day life." Construction took two years and cost \$122,058.48. The building's dedication on May 25, 1894, would "undoubtedly be recorded as most important in the university's history," the *Daily Cardinal* said. Classes were canceled, the railroads gave reduced rates, the Madison Choral Union performed Handel's *Messiah*; there was a parade, military review, boat races, and a gala ball. The building, 196 feet by 106 feet and 101 foot high, was officially opened for use on September 17, 1894. Only the campus women were disappointed — they were denied use of the gym and had to wait for athletic facilities to be added to Ladies Hall in 1896. This photo shows the cadets of the Student Army Training Corps on the drill field in front of the Armory in 1915. (University of Wisconsin Archives)

University of Wisconsin
Armory and Gymnasium, 1894
Madison, Dane County, WI



Transverse Section
Source: Mesick Cohen Waite Architects

University of Wisconsin
Armory and Gymnasium, 1894
Madison, Dane County, WI
Approximate Scale: 1" = 25'

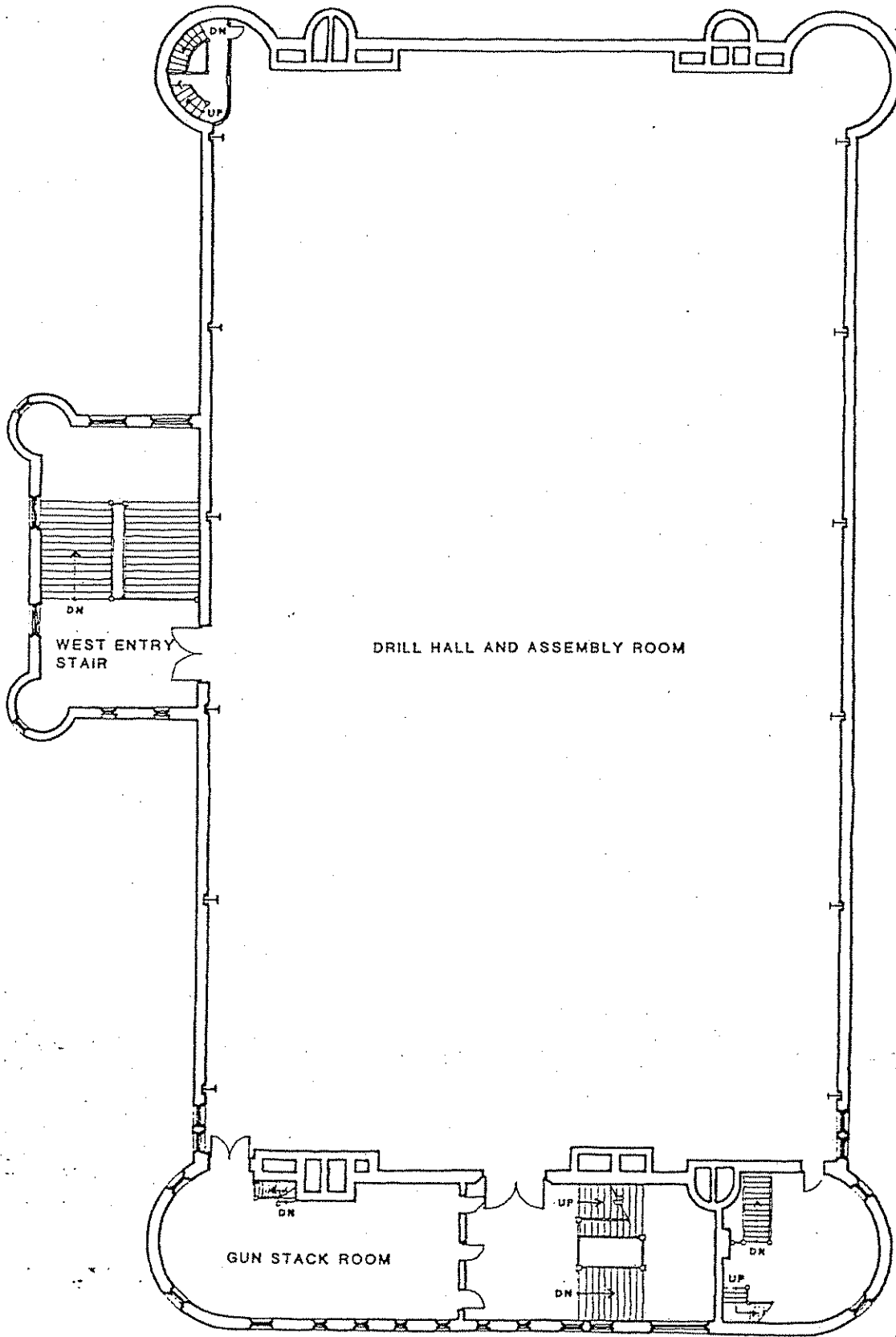


Reconstructed as-built first floor plan

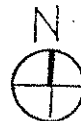


Source: Mesick Cohen Waite Architects

University of Wisconsin
Armory and Gymnasium, 1894
Madison, Dane County, WI
Approximate Scale: 1" = 25'

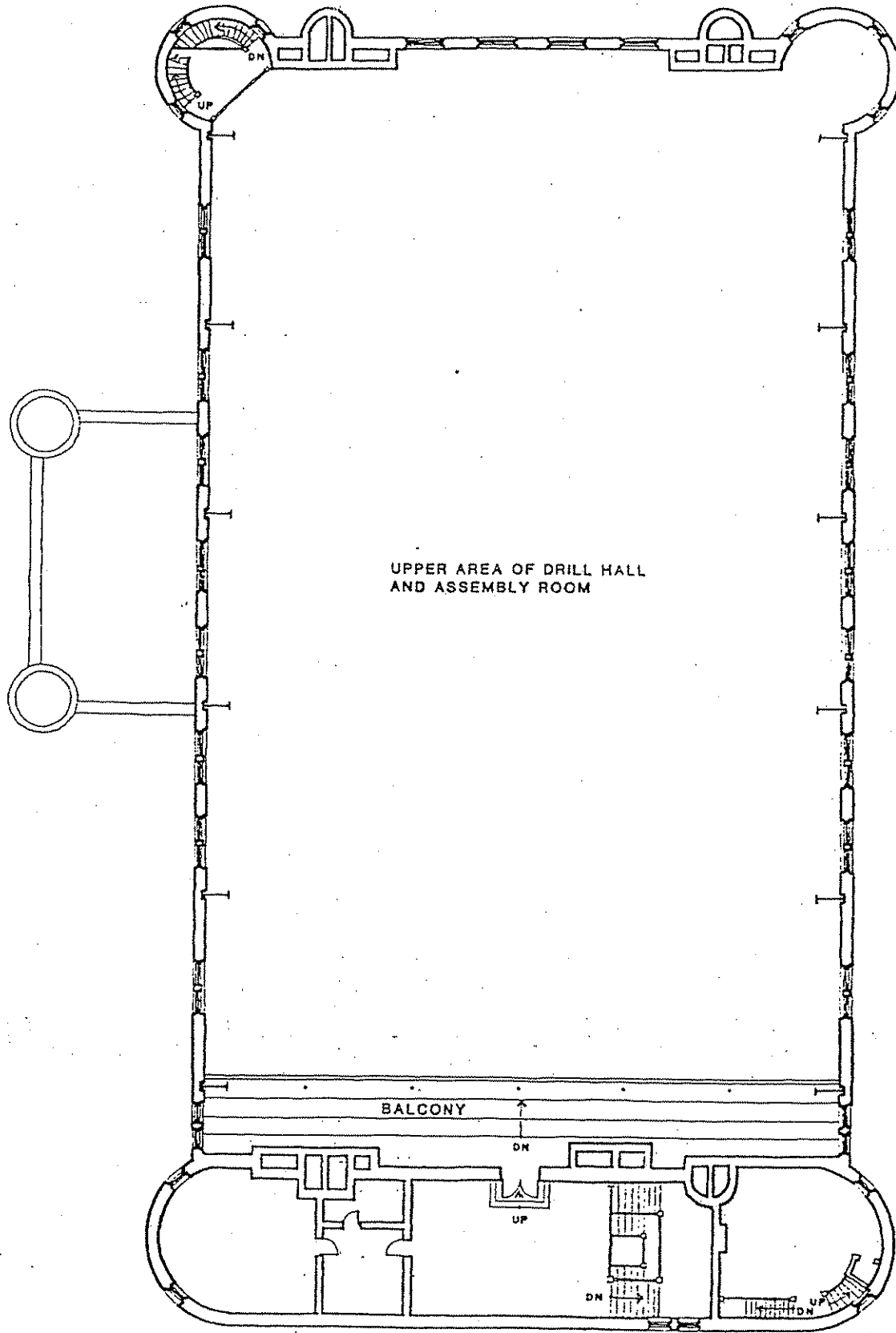


Reconstructed as-built second floor plan



Source: Mesick Cohen Waite Architects

University of Wisconsin
Armory and Gymnasium, 1894
Madison, Dane County, WI
Approximate Scale: 1" = 25'



UPPER AREA OF DRILL HALL
AND ASSEMBLY ROOM

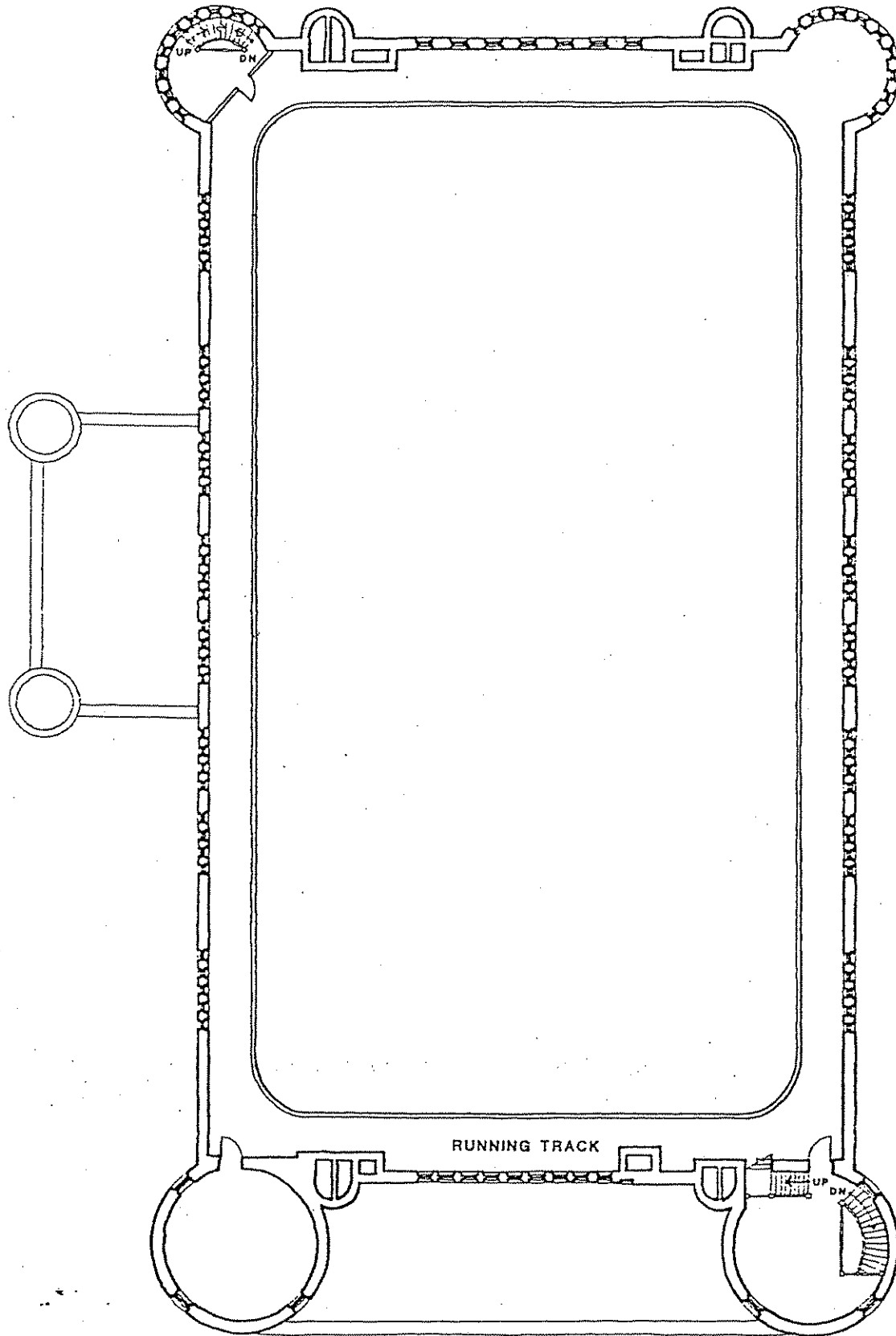
BALCONY

Reconstructed as-built mezzanine level plan



Source: Mesick Cohen Waite Architects

University of Wisconsin
Armory and Gymnasium, 1894
Madison, Dane County, WI
Approximate Scale: 1" = 25'

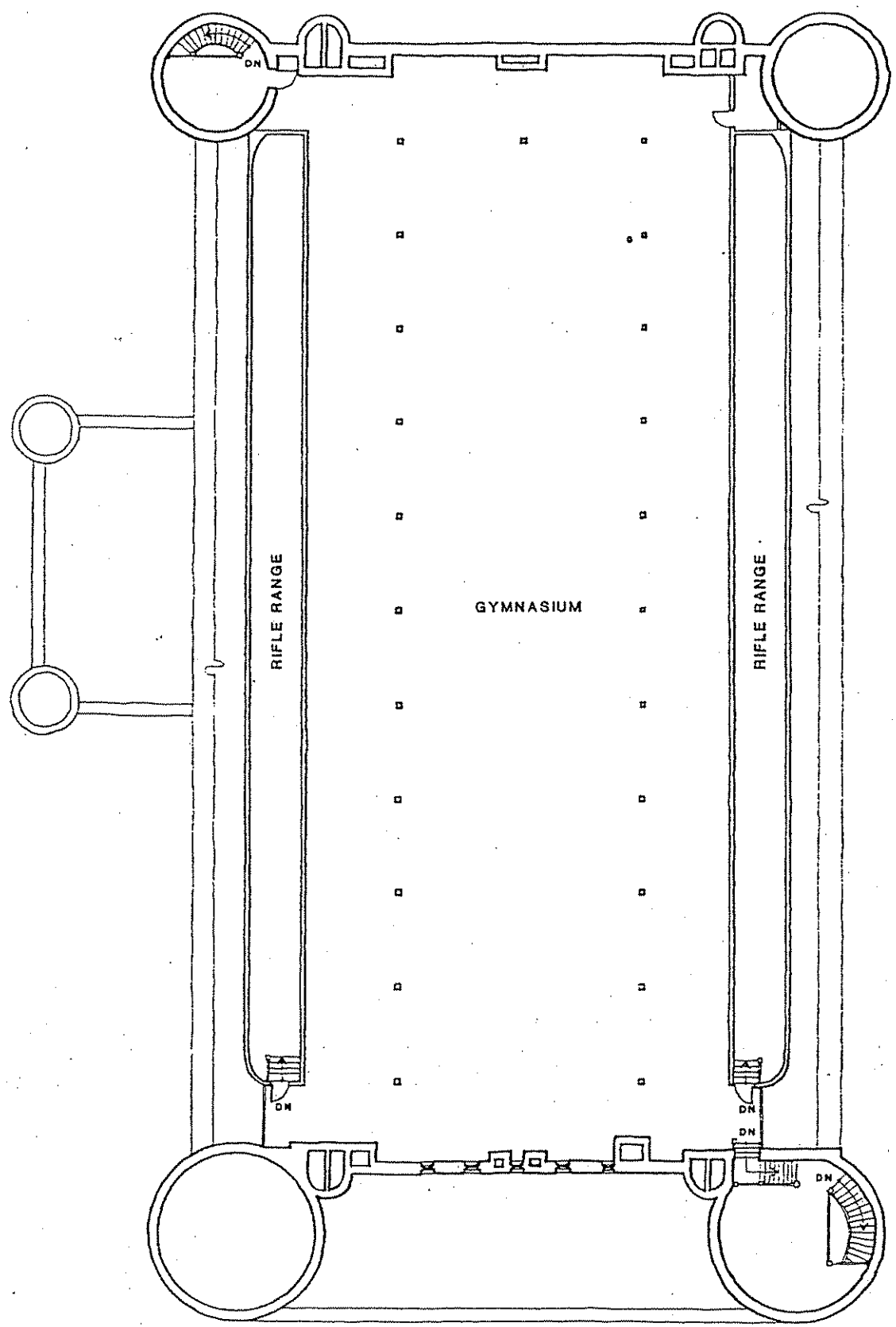


Reconstructed as-built third floor plan



Source: Mesick Cohen Waite Architects

University of Wisconsin
Armory and Gymnasium, 1894
Madison, Dane County, WI
Approximate Scale: 1" = 25'



Reconstructed as-built fourth floor plan



Source: Mesick Cohen Waite Architects

