



POST-CIVIL WAR ARCHITECTURE

by

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EDITOR'S NOTE:

This is the second in a series of five Tech Talk articles on Minnesota's architectural styles. The next one is scheduled for the Sept. 1999 issue of *The Interpreter*.

Figure 1, right above: the Thorne-Lowell house in the W. 2nd St. Historic District in Hastings was built in 1861.

Figure 2, right below: Detail of a bracket on the Archer Hotel in Northfield, built in 1877. The hotel is in the Northfield Historic District.

Editor's note: TECH TALK is a bimonthly column offering technical assistance on management, preservation and conservation matters that affect historical societies and museums of all sizes and interests. Comments and suggestions for future topics are welcome.

After a brief lull in construction during the Civil War, Minnesota witnessed a building boom in the decades of the 1870s and 1880s. During these years many communities virtually tripled in size. Population numbers exploded and industries produced their goods around the clock. The pioneer era of settlement in eastern Minnesota was over. Rail lines were extended to the west, and by the end of the 1880s virtually no burgeoning town was without a link to another. The era of the Greek and Gothic Revival style came to an end, only to be replaced by a more exuberant and substantial architecture indicative of affluence and permanence. These expressions of progress became known as the "Bracketed Styles" and the later part of the period as the "Brownstone Era."

Villas

The villa as an architectural style was introduced to the masses in Andrew Jackson Downing's popular work, *Country Houses**, along with Gothic-inspired country houses and cottages. (See Figure 1.) It was loosely inspired by the romantic image of Italian country villas, which are usually found in a natural setting. Its architectural signature was the rooftop cupola or corner tower, along with a rich adornment of brackets—ornamental, scroll-like supports under the eaves of a roof—and classically inspired columns. (See Figure 2.) The villa was exceptionally adaptable as both a country manor and an urban mansion. It was regarded as a statement of social correctness and respect within the community, and it was an exceptionally popular choice by people of prominence. When all things were considered, the Villa Style was a commodious one.

Villas commonly appeared in two forms: the cube or the "L." The basically simple mass of the building was expanded by the addition of porches, bay windows and service wings. The cube characteristically boasted an ornate cupola at the apex of a low-pitched hip roof. Porches could be either found at the front, or in some cases, extended to encircle the cube. With the "L," a prominent tower was placed at the intersection of two sections of the building; it often served the function of entry and stair tower in addition to its visual

contribution to the overall aesthetic. Common materials for construction ranged from wood to brick and stone.

The Villa Style was popular from 1860 through 1875. Its common characteristics include either a symmetrical or an asymmetrical plan, two or three stories in height, and low-pitched hipped or gable roofs with prominent chimneys. Ornamental treatments include



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carved or scroll-sawn brackets, high windows with arched or flat hoods, elaborate porches or verandahs, and the signature tower or cupola. In later years, in response to changing architectural taste as well as an attitude toward unnecessary maintenance of

*Published in 1861, the full title of the book is *The architecture of country houses; including designs for cottages, farm-houses, and villas, with remarks on interiors, furniture, and the best modes of warming and ventilating. With three hundred and twenty illustrations.*



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“frivolities,” many villas lost their cupolas or towers. Devoid of this feature, the Villa Style is difficult to distinguish from its contemporary, and successor, the Italianate Style.

Italianate Style

The Italianate Style was extremely popular for both residential and commercial buildings, and retained its popularity until the early 1890s. In contrast to the villa,



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Figure 3, the Lorenz and Lugerde Gintbner house in Wabasha, listed on the National Register of Historic Places, was built in 1882.

Figure 4, right above. The Philander-Sprague house in Red Wing was built in 1868. It is in the Red Wing Residential Historic District.

Figure 5, right below. The Van Dyke-Libby house in Hastings was built in 1867, and is listed on the National Register of Historic Places.

the Italianate building was readily adaptable to an urban setting with narrow street frontages. In these instances, ornamentation was concentrated on the principal elevation, resulting in an elaborate, and sometimes flamboyant, appearance. It was common to

employ ornamental details such as brackets and columns in pairs. Low-hipped roofs with broad eaves emphasized the massing of the building below. With the exception of the cupola or tower, the Italianate Style incorporates the same ornamental characteristics as the Villa Style, though in greater abundance. (See Figure 3.)

The Italianate Style was considered a virtual trademark of popular commercial architecture during the late 19th century. Storefronts employed cast-iron columns with classical ornamentation, and great expanses of glass in display windows. Upper floors were graced by tall, arched windows with stone or metal hoods. The facade was crowned by an elaborate cornice, fabricated of wood or pressed metal. Within the cornice were brackets, decorative panels, and an area for the owner's name and/or date. Virtually all commercial districts during the second half of the 19th century had a proliferation of Italianate storefronts.

Restoring Villas and Italianate Buildings

When undertaking the restoration of a Villa or Italianate building, the critical factor is the proper use of ornament, for it is easy to “over-ornament” such a building. The key to placement, in addition to an understanding of “high style” versus local vernacular, is symmetry and balance. Many pre-formed decorative elements were mass-produced and obtained through catalogues. These range from simple to extremely

elaborate. Some elements were fabricated on site by local builders to create an appearance of the popular image of the style. Research into the time and place, availability of materials, proficiency of craftsmen, and the economic conditions is essential.

French Second Empire: The Mansard Style

The French Second Empire Style is often called the “Mansard Style” in recognition of its most prominent characteristic, the mansard roof. The style was developed in France during the reign of Napoleon III in the 1850s, and was marked by a major remodeling of the Louvre in Paris. It became popular in America immediately after the Civil War, and continued to make its mark on residential and public architecture for nearly 20 years into the 1880s. The elaborate use of classical ornament and mansard roofs on the Old Executive Office Building in Washington, D.C., which was constructed during the presidency of Ulysses S. Grant, earned the style the nickname, “U.S. Grant Style.”

Unlike the low-pitched, hipped roof of the Italianate Style, the mansard roof is composed of a double-pitched structural system, allowing the incorporation of a full story within what normally would be considered attic



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space. The lower face of the roof is nearly vertical and is most often fitted with dormer windows. It is commonly faced with patterned slate or wooden shingles to produce a decorative effect. The upper pitch is very low and, due to the height of the lower face and the use of a cornice or curb, is nearly obscured from view. An ornamental treatment of the curb is created by the addition of a filigree iron cresting, similar to a small fence. The roof and its ornament emphasize the height of the building. It was also common to incorporate a tower (with mansard roof) on public buildings and prominent residences. With the exception of the mansard roof, other details are similar to those found in the Italianate Style. (See Figure 4 and Figure 5.)

The "L" or "T" House and the "Mechanics Cottage"

The 1870s saw the introduction of two simple building types: the "L" or "T" house and the Mechanics Cottage. Both of these buildings have been often classified as "vernacular" in recognition of their relative simple construction and appearance as well as popularity. They generally lack ornamentation particular to any style, and when ornamentation is employed, it is of the mass-produced catalogue variety.

The "L" or "T" house design is common in rural areas throughout the Midwest, and is not unique to

elements is reflected in a slight difference of materials and craftsmanship. (For example, the original section may be constructed of logs while the addition is constructed of dimension timber.) In later years, it was common to construct the entire structure at one time, although the proportions remained essentially the same as earlier examples.

Like the "L" or "T" house, the Mechanics Cottage was a vernacular urban predecessor of the Bungalow



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Figure 7. Part of the row of houses on Milwaukee Avenue in Minneapolis, built 1883-86, part of the Milwaukee Avenue Historic District.



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*Figure 6.
The Peter
Roggurbush
family house,
Lac Qui Parle
County,
ca. 1895.*

Minnesota. It is often considered the predecessor of the American Four-Square or Corn Belt Cube of the early 20th century. The structure often began as a subsistence dwelling. As the owner prospered, a more impressive story-and-a-half addition would be constructed at right angles to the initial structure, resulting in the characteristic "L" or "T" shape. The addition often contained bedrooms on the second floor and a parlor/sitting room on the first floor. (See Figure 6.) The original structure was adapted to serve as kitchen and dining space. In many early examples of this building type, the difference in the construction of the two

Style. It was a simple house to satisfy the needs of small working-class families. It was hastily constructed on a narrow city lot, using a standard plan and mass-produced materials. Mechanics cottages commonly were erected in rows or groups in subdivisions called "rearrangements" to accommodate concentrations of buildings. Each cottage was identical to its neighbor. (See Figure 7.) Due to the haste and relatively low quality of construction, few Mechanics Cottages survive, and very few survive in their original groups. (Milwaukee Avenue in Minneapolis, listed on the National Register of Historic Places, is a rare example of an original row of Mechanics Cottages.)

The Richardsonian Style

Although this period is widely known as the "Brownstone Era," the term is rather misleading in the context of Minnesota architecture. Virtually no brownstone is found in Minnesota. In essence, the term has been commonly taken to refer to any "rock-faced" masonry building, whether it be of limestone, sandstone, quartzite or granite. These buildings were popular during the 1880s and 1890s. They were usually large buildings, including mansions, churches, courthouses and public buildings. If any generalization can be made, it may be stated that the style and medium were not adaptable to small-scale buildings. (See Figure 8 and Figure 9.)



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Universally recognized as the founder of the Brownstone Era, Henry Hobson Richardson was an architect with a deep interest in the Romanesque architecture of Medieval Europe. Through his creative genius, Romanesque motifs were given new

interpretation in a distinctive and popular style, which architectural historians label "Richardsonian" or "Richardsonian Romanesque." Professional architects of the day cultivated the enthusiasm of the public to embrace the Richardsonian, and the style became fashionable almost overnight.

Characteristics of the style include a strong sense of massiveness, rusticated or rock-face

masonry, low semi-circular arches (often called Syrian arches), elaborate carvings, polychromatic panels, towers, and steeply pitched slate or tile-clad roofs. Bands of windows were often divided by clusters of small pilasters called colonettes. Interiors were remarkable for their use of intricate detailing, fine materials and decorative opulence.

Due to their scale and cost of maintenance, many Richardsonian mansions have been lost. A number have been converted into adaptive uses such as multi-family residences or institutions. Few remain as originally designed for single family occupancy. Public buildings such as schools and seats of government have met similar fates. A number of Richardsonian courthouses survive in Minnesota, but they have been extensively altered by additions and remodeling. All but a handful of multi-story Richardsonian urban buildings were demolished to make way for the urban renewal projects of the 1960s. Of the once-prolific style, only churches have fared well. Well-constructed, and located within residential neighborhoods, most continue to serve their congregations to this day.

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Figure 8. Administration Building of the Minnesota State Training School, Red Wing, 1889. Note the semi-circular "Syrian" arches. The school is listed on the National Register of Historic Places.

Restoration of Richardsonian Buildings

The significance and relative rarity of Richardsonian buildings today is justification for comprehensive and ongoing programs of restoration and stewardship. Common problems inherent in the building type are the effects of weathering on the stone walls and mortar joints, not to mention the extremely susceptible carved ornamentation that embellishes them. Although some Minnesota Richardsonian buildings were constructed of granite or pink jasper (Sioux quartzite), most were constructed of limestone and/or sandstone. Both of the latter types of stone are exceptionally vulnerable to moisture and erosion, which eventually results in deterioration of entire faces of stone blocks or elements. As the stone continues to erode, the disintegration increases at a rapid rate, allowing moisture to enter the walls and cause the stones to spall.

Of paramount concern is keeping the roof and parapets water-tight and the mortar joints sound. Further, it is important that the mortar used in the joints be a soft mortar (avoid Portland cement, which is extremely hard), which allows the stones to expand and contract with changes of temperature. A hard mortar restrains the



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Figure 9. H. Alden Smith house, Minneapolis, 1887, listed on the National Register of Historic Places.

movement of the stone and, if the expansion pressure becomes too great, the stone will literally crack and explode.

Also, avoid application of water-repellent coatings, which seal in moisture; freezing temperatures will turn the moisture to ice and crack the stone. Ongoing research into modern techniques for stone conservation includes testing of stone consolidants to retard erosion and solidify weakened stone. However, many of these techniques are in their experimental stages and must be adapted for specific climatic conditions and stone types. The best counsel in the matter of stone buildings is to obtain the services of a professional masonry contractor and to avoid any processes that are not time-proven and reversible.