ARCHITECTURAL HISTORY

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One of Albany's hidden treasures is the Cathedral of All Saints, the seat of the Bishop of the Episcopal Diocese of Albany. Partially concealed by—and in stylistic tension with—the monumental neo-classical colonnade of the New York State Education Building, the Cathedral of All Saints is a sublime, if incomplete, monument to the timeless and eternal aspirations of Christian faith. With its design based on the High Gothic cathedrals of Canterbury, Lincoln, and St. Albans, All Saints is significant as the first Episcopal cathedral planned and constructed on the same scale and with the same traditional construction methods and materials used in medieval European Gothic cathedrals of the eleventh and twelfth centuries.

The Right Reverend William Croswell Doane (1832-1913) was a man with a mission. As the first bishop of the newly organized Episcopal Diocese, Doane arrived in Albany in 1869 seized with the ambition to create a proper cathedral church that would serve as the center of spiritual life for the large new diocese that encompassed much of upstate New York. To Doane fell the challenge of organizing the more than 100 parishes and missions spread out over a region that stretched from the Adirondacks to the Catskills. The son of a bishop, Doane had watched his father's limited success in building a cathedral for the Diocese of New Jersey. The elder Doane had engaged Richard Upjohn to design St. Mary's Church in Burlington, which is an elegant

evocation of Gothic style ecclesiastical architecture, but it did not greatly exceed the size and scale of the English country parish churches on which its design was based.

For the capital city of the Empire State, however, the younger Doane had aspirations for a Cathedral Foundation based on English models, with church, hospital, convent, cloister, chapter house, and school. While a few Episcopal bishops had constructed cathedral churches of modest proportions in other parts of the United States during the third quarter of the nineteenth century, they were often the size of a large parish church: no other Episcopal bishop had built a cathedral on the scale of European cathedrals of the medieval and Gothic periods.

Bishop Doane moved ahead rapidly with his plan for the establishment of a Cathedral Foundation in Albany. He created a school for girls in 1870 and, in 1872, he opened All Saints Cathedral Chapel in a rehabilitated and converted former machine shop. In March 1873 the New York State Legislature granted a charter to The Cathedral of All Saints, one month before a charter was granted to the Cathedral of St. John the Divine in New York City. Later that year Doane founded a sisterhood devoted to the care of children and in 1874 established a hospital for children. Erastus Corning, Sr. donated a site on South Swan Street between Elk and Lafayette Streets, making it possible to plan for the design of the cathedral.

Doane organized an international design competition for "the American Cathedral," as it was known. After intense review of submission, the winner was announced in 1882: he was a relatively unknown twenty-nine year old British architect, Robert Wilson Gibson (1853-1927), newly arrived in America. A graduate of the Royal Academy of Arts in London, Gibson had

won silver medals for architectural drawing in 1877 and 1878. Having been awarded the Soane Medallion upon graduation, he had the opportunity to travel for a year, touring Spain, France, and Italy, and sketching cathedrals. Gibson's selection as architect of All Saints may have been strengthened by his strict adherence to Doane's requirements for an authentic Gothic style structure. Gibson also worked with Doane on the design of the Lodge (1882) and the Chapel (1884) at Albany Rural Cemetery.

Gibson's principal competitor (and runner-up in the design competition) was the enormously influential Henry Hobson Richardson whose characteristic, but highly individualistic, Romanesque revival design for the cathedral was featured in *Harper's Weekly*. Richardson had already distinguished himself in Albany during the 1870s as a designer of monumental structures: he was one of the team of architects assigned to complete the New York State Capitol, and he designed Albany City Hall (1881-1882). However, it was his design for Trinity Episcopal Church (1872-1877) in Boston with its irregular massing and polychromatic stonework based on the Romanesque structures of central France that set the tone for several religious and secular structures during the next several decades, including his design for the Albany cathedral.

However, Gibson's more academic Gothic revival design, based on English prototypes, was more sympathetic to Doane's aspirations for a cathedral that physically embodied the reformist ideals of the English Oxford Movement. Gibson, with Doane's approval, developed a design based on early English Gothic churches but tempered it to the harsher climate of upstate New York. He adopted what he described as a Spanish character through the use of moderate-sized

windows, in response to the extremes of temperature between winter and summer in Albany, and proposed a compact massing with simplified ornamental exterior trim to help reduce construction costs.

At 320 feet in length, All Saints is the fifth largest cathedral in the nation and twenty-ninth largest in the world. Across the transepts, the cathedral is 130 feet wide, and the nave spans 44 feet between the centers of the columns, which are seven feet in diameter. Eschewing structural iron and steel, then coming into extensive use in late-nineteenth century construction, All Saints is built of stone and brick masonry in the manner of the great Gothic cathedrals of Europe.

Gibson satisfied another of Bishop Doane's criteria for a structure of "instant antiquity" by cladding the exterior with a light, reddish-orange split-face sandstone from Potsdam, in St. Lawrence County, New York. Ornamental work on both the exterior and interior was carved from East Longmeadow brownstone quarried near Springfield, Massachusetts. Gibson's selection of the warm reddish brownstone for the interior gives the cathedral "a feeling of warmth and antiquity comparable to the mediaeval buildings of England and Europe," in contrast to the white limestone used at the contemporary Cathedral of St. John the Divine in New York and the National Cathedral in Washington, D.C.

In keeping with the tradition of the Middle Ages when cathedrals served both as town halls and markets, the seating in All Saints is not fixed. The cathedral normally seats 1,000, but can accommodate over twice that number for special events. Of special interest are the ornately

carved wood clergy stalls that line the choir. The stalls, carved in c.1655, were acquired from a long-demolished church in Bruges, Belgium.

However, unlike its European precedents, which were often constructed over long periods of time and from one end to the other, Doane required a structure with all parts of a full cathedral church when the doors of All Saints opened. Working within tight budget constraints, Gibson designed the first phase of construction, which established the basic footprint of the final completed cathedral, including the nave, crossing, north and south transepts, choir, and sanctuary.

The cornerstone of All Saints was laid on Whitsun Tuesday, June 3, 1884, in an elaborate ceremony attended by many of Albany and New York State's most influential citizens, including J. P. Morgan, Theodore Roosevelt, Leland Stanford, and Grover Cleveland. The foundations had been laid by the Norcross Brothers, and builder John Snaith supervised the first phase of construction from 1884 to 1888.

Work proceeded over the next several years, interrupted periodically when funds were not available. Significant fund raising was undertaken by the women of the congregation at several key junctures to ensure that the work was able to progress. Exterior side walls and nave piers were raised to a height of 40 feet, a temporary clerestory was created utilizing the triforium-level openings, and a "provisional" wood-framed roof with sheet-metal roofing was installed to enclose the interior. Interestingly, and intentionally, the volume enclosed by the provisional roof is very close to that intended to be enclosed by the permanent vaulting, with the ridge of the

vaulting and the temporary roof both about 70 feet above the floor. Thus, the cathedral, although incomplete, was fully functional and conveyed the overall sense of the completed design.

The first phase of construction also included the work of master stone carver Louis J. Hinton, who had studied carving and Gothic art in his native England and whose designs and carvings are to be found in much of the stonework in the New York State Capitol, including the Great Western Staircase. His rich designs for column capitals, archways, bosses, belt courses, other trim, and memorials carved in the even-grained East Longmeadow brownstone appear throughout the interior of the cathedral. Stone tracery for rose windows in the north and south transepts, and the five lancets that make up the lower portion of the great east window were installed, although carving was not completed until 1891. The rose window above the west doors, representing the Saints in Glory, was designed by John LaFarge of New York and donated by the Clarkson Family of Potsdam, New York, owners of the sandstone quarry.

Nearly fifteen years were to pass until sufficient funds were available to continue the work. In the interval, the Memorial Guild House was completed in 1902. With funds provided by J. Pierpont Morgan, the interior and exterior of the choir were built to their full height, and a wing including the choir practice rooms, vestries, and cloister were added between 1902 and 1904. The temporary roof above the choir and sanctuary was removed. The sidewalls, braced by external flying buttresses, were raised an additional 40 feet to include the triforium and true clerestory windows. The tracery of the great east rose window of the choir was completed as the east wall was raised to its final height. The interior of the choir and the choir side aisles were

vaulted with clay tile panels and ribs manufactured and installed by the Guastavino Fireproof Construction Company of New York City. The entire roof was covered with slate shingle roofing and copper flashing.

All of the leaded stained glass windows of the choir clerestory, choir side aisles, and the great east window were designed and fabricated by Clayton and Bell of London, England, one of the leading decorative glass designers of the day. All Saints retains one of the finest collections of Clayton and Bell's windows, since much of their work was lost during the bombing of London during the Second World War. The choir clerestory windows, unveiled in 1909, contain images of the Old Testament prophets. With its sill 22 feet above the floor, and the top of its pointed arch rising to 64 feet above the floor of the choir, the 22 foot wide great east window is one of the largest in the United States. Allegorically, it serves as the summation of the imagery of the other windows: the upper portion commemorates the saints of the early Christian church of the apostolic period and those of the Church of England in its earlier day, while lancets contain subjects associated with the great events in the life of Christ, including the Resurrection, the Commission of the Apostles, the Ascension, and the Sending of the Holy Ghost. When backlit by the morning sun, the great east window glows with a rich polychromatic light that seems to fulfill Bishop Doane's aspirations for a cathedral church that captures the purer spirituality of the middle ages.

With construction on the cathedral halted, Bishop Doane moved ahead with plans to expand the cathedral grounds south to Washington Avenue, and he obtained options on several of the lots in the adjacent block. However, the Bishop's plans ran into opposition from an unexpected quarter.

While Doane was in Europe during 1906, the first New York State Commissioner of Education, Andrew Sloan Draper, succeeded in acquiring lots critical to Doane's plans along Washington Avenue for his own project, the State Education Building. By the time the Bishop returned, the state had secured the options and acquired the grounds. Although Doane succeeded in limiting the number of stories in the State Education Building, Draper maximized the floor-to-floor distances. The enmity between the two men can be seen in the height and scale of the State Education Building, which largely screens the Cathedral from Washington Avenue, except for a narrow view corridor along South Swan Street. Doane died in 1913, shortly after completion of the State Education Building. Ironically, Draper followed him to the grave several weeks afterwards.

All work on the Cathedral ceased after Doane's death, and aside from periodic maintenance work and the ongoing donation of stained-glass memorial windows, the Cathedral was little altered during the twentieth century. In 1948 the red-painted standing-seam metal roofing over the nave and transepts was replaced with dark brown asphalt shingles, which remained in place until 2001. In the mid-1950s, the wood floor structure of the nave, crossing and transepts was used as formwork for a new reinforced-concrete floor. The floor project also included the replacement of the wall-mounted radiant heating units with radiant heating piping installed in the floor slab. The undercroft was remodeled with a kitchen, multi-purpose room, and Sunday school classrooms. In 1971 a simplified stone facade of Potsdam sandstone with Indiana limestone trim was installed on the incomplete west entrance.

However, construction still has not been started on the most ambitious parts of the cathedral. For instance, the central tower above the crossing at the juncture of the transepts, nave, and choir is planned to be 175 feet high, while the western towers were intended to reach to 210 feet above the sidewalk. Incomplete work deferred for the future includes the western and northern porches, most of the exterior carved ornament, and ancillary structures.

In 1996, John G. Waite Associates, Architects, PLLC, of Albany, New York, was retained by the Cathedral of All Saints to prepare an existing conditions assessment of the interior and exterior of the Cathedral and the Guild House. The architects analyzed and recorded problem conditions with the slate and asphalt shingle roofing, sheet-metal roofing and flashing, interior and exterior stone and brick masonry, flooring and finishes, heating, plumbing and electrical systems. Ryan-Biggs Associates, P.C., structural engineers of Troy, New York, examined the condition of structural elements, such as flying buttresses and engaged stone buttresses. Cummings Stained Glass Studios of North Adams, Massachusetts, examined the condition of the stained glass windows. A team of high-area access specialists from Vertical Access of Ithaca, New York, was utilized by the architects and consultants in examining the condition of roofing, stone masonry, and stained glass windows. Video tape recordings of observations were made. Problems of repair were identified, and prioritized recommendations for repair were suggested.

The slate roofing above the choir and sanctuary, installed almost one hundred years ago, appeared to be failing due to a loss of fasteners, thereby allowing slates to slip out of position. Standing-seam copper roofing above the choir side aisle chapels and painted sheet-iron roofing on ambulatory roofs were failing, and several holes were observed. The asphalt-shingle roofing

on the nave, crossing, and transept roofs, installed in 1948, had failed long ago. Ironically, the underlying standing-seam sheet metal of the provisional roof of 1888 appeared to be assisting in diverting water. Separation of stone masonry, as well as open mortar joints in several of the engaged buttress piers suggested that individual stones were being displaced. The surfaces of several blocks of brownstone were extensively eroded and spalling. Otherwise, the Potsdam sandstone was generally in very good condition, although dirty. Recommendations placed the highest priority on roofing replacement, repair and rebuilding of stone masonry at several locations, and establishing a system to monitor potential movement across several mortar joints.

Architectural documents were prepared for a first phase of restoration that included replacement of the slate roofing and copper flashing above the choir and sanctuary, replacement of the standing seam metal roofing on the ambulatory roofs with standing seam terne-coated stainless steel roofing. Following review and approval of the proposed restoration work by the New York State Office of Parks, Recreation, and Historic Preservation, the work was competitively bid and the lowest qualified bid was submitted by Carey Construction of Kingston, New York.

Work proceeded on the exterior between 1999 and 2002, including an addition to the scope in 2001 for the replacement of the asphalt shingle roofing on the nave and transepts with standing seam terne-coated stainless steel roofing. An area of Potsdam sandstone at the exterior south wall of the baptistery was cleaned as a demonstration to show the original color of the sandstone and brownstone and to give an indication of what the entire cathedral might look like when cleaned.

Following an earthquake centered in the Plattsburgh area in December 2001, additional areas of daylight were seen to be visible between stained glass panels and stone tracery, and were reported to the architects by members of the Cathedral. Following the erection of scaffolding, and mapping of the tracery and leaded stained glass by the architects, review of the stone tracery by structural engineers from Ryan-Biggs, and examination of the stained glass by Cummings Studios, the decision was made to remove the leaded glass, repoint open mortar joints in the stone tracery, and install strain gauge monitors across the most displaced joints in the tracery. The stained glass panels were crated and shipped to Cummings Studios, where they were cleaned, repaired, and completely re-leaded over a one-year period. During the same period, the year-long monitoring program revealed that the repointed stone tracery appeared to be stable, with only seasonally associated thermal movement. The leaded glass panels were reinstalled during the spring, and the scaffolding removed prior to Easter Sunday 2003.

The Baltimore Cathedral

There are many parallels between the Cathedral of All Saints and the Basilica of the Assumption, in Baltimore, Maryland, the first Roman Catholic cathedral constructed in the United States. Designed in 1805 by Benjamin Henry Latrobe, the country's first professional architect and the architect of the United States Capitol, the Baltimore Cathedral has received international recognition for its architectural design and has been called the most historic Roman Catholic Church in the United States. Built at the time when all Catholics in the entire United States, including the Louisiana Purchase, were part of one diocese, the building was constructed to be the most important Catholic church in the country and to serve as a symbol of the Church as it changed from a persecuted minority to a major force in the new republic.

Like the Basilica, the Cathedral of All Saints was intended to be the most important cathedral of its religion and to serve as a symbol of the Episcopal Church. In both cases the building was constructed by a team—an energetic, architecturally-literate bishop with strong ideas about the architectural form of the building and great vision for the future of his respective church and a skilled and patient architect capable of making a reality of the bishop's vision.

John Carroll, Bishop of Baltimore, realized that if the Roman Catholic Church was to reach its potential in the young but rapidly growing United States, its architectural symbol should be designed so that it looked to the future. To achieve this, he directed that the building be designed in a neo-classical style that was the most "modern" of the time. He selected Benjamin Henry Latrobe as architect who, although not a Catholic, was, because of his professional training in Europe, the most familiar with avant-garde neo-classical buildings in Europe and America.

Although Maryland had been founded as a haven for English Catholics, the colony-turned-state found itself in a distinctly minority position in the early days of the new American republic. Bishop Carroll was concerned that rising anti-Catholic sentiments would use a building designed in a Neo-Gothic style against the Church by associating it with the dark ages and Papal ties to Europe. However, a design based on the neo-classical style, as used in such new national buildings as the United States Capitol and the White House, would help diffuse such criticism. The Basilica, and by association the Church, would be placed in the mainstream of acceptable American institutional design that sought to enshrine American democratic ideals in architecture that harkened back to the great classical republics of ancient Greece and Rome.

Bishop Doane, on the other hand, understood that the first Episcopal cathedral in America constructed on the scale of its European counterparts needed to make a strong statement about the transcendent values of the Episcopal faith. He decided that Albany's cathedral must be constructed in a formal, archaeologically correct Gothic style utilizing traditional building materials and technology in order for it to achieve its full potential in expressing the reformist ideals of the Oxford Movement and in guiding the Church into the twentieth century.

Interesting parallels can be found between the cities of Baltimore in 1805 and Albany in the 1880s. While not the largest city in the United States at the turn of the nineteenth century, Baltimore was very prosperous and had become a center of intellectual enlightenment, thanks in part to the many émigré families who had fled the French Revolution and settled in the city. As a center of trans-oceanic shipping and overland commerce as well as intellectual and cultural activity, Baltimore had one of the country's first medical schools, as well as a library and museum.

By the third quarter of the nineteenth century Albany was the capital of the most economically powerful state in the nation. Astride important canal, rail, and river transportation routes, Albany was a crossroads for commerce and ideas between New York and Boston, the Atlantic seaboard centers of shipping and finance, and the rapidly developing industrial and agricultural hinterlands of the Mid- and Far West. New York, as the Empire State, had become the economic, political, and cultural center of the country, and the focus of the rapidly developing American empire. Located in its capital city and supported by powerful religious, political, and financial figures,

the Cathedral of All Saints was conceived as a symbol of a reformed and reinvigorated faith, an inspirational center at the heart of diocesan-wide clerical and lay activities.

All Saints and the Basilica share many of the same characteristics. Although designed in different architectural styles, they share a number of common aspects of form, including: paired towers flanking the main entrance façade; traditional cruciform floor plans with naves, transepts, choir and sanctuary; wide central naves unobstructed by columns for better vision and participation by congregants; and crossing towers with lanterns for lighting the central core of the church. Their designs are strengthened by the use of natural daylight to accentuate the experience of the space and the liturgical goals of the communion, although to differing ends.

In the Basilica, Latrobe created large sidewall windows and skylights in the dome glazed with clear un-tinted glass to maximize the penetration of clear light. The play of light through the oculus in the dome as it moved across the sidewalls of the rotunda was an important feature of the design of the Basilica, and its effect has been described as almost magical. At All Saints, Gibson carefully modulated the amount of light allowed to enter the interior. Although tinted provisional glass was used for the initial windows, Gibson anticipated that leaded stained glass panels would be donated over time. These would filter and transform pure daylight into a spiritual half-light, and use the windows in the traditional manner of the medieval European cathedrals where the windows, along with carved stonework, serve as a picture book to tell the stories of the Old and New Testament. Gibson's plan for All Saints included a hierarchy of light, to draw the visitor's eye first through the dim light from the nave clerestory and side aisle windows to the great pool light under the central tower's lantern at the crossing. Moving

onward, through the dim zone of the choir clerestory windows, the visitor's eye is drawn to the radiant glow of the great east window, facing east where it would receive the direct rays of the early morning sun, and flood the interior with a polychrome radiance of spiritual light.

Like some European cathedrals, both the Basilica and the Cathedral of All Saints were never completed. Although a strong design for each building exists, their construction has progressed in stages over decades, also like their European antecedents. Both are now in the beginning stages of construction work that will realize the original visions of the bishops and architects who conceived the buildings.

John G. Waite and Robert A. Petito Jr. are principals in the Albany architectural firm of John G. Waite Associates, Architects, PLLC. The firm is currently responsible for the work on the Cathedral of All Saints as well as the Basilica of the Assumption in Baltimore.