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Volume 2
The Architectural Drawings of Benjamin Henry Latrobe
Part 2
Jeffrey A. Cohen and Charles E. Brownell

BALTIMORE CATHEDRAL

One¹ of Latrobe's most eminent architectural accomplishments was the design of the Roman Catholic cathedral in Baltimore. Officially the Minor Basilica of the Assumption of the Blessed Virgin Mary, it is more commonly known as the Baltimore Cathedral. (Since 1957 it has been Baltimore's "Co-Cathedral"). The cathedral was a work of great size and great aesthetic ambition whose protracted execution involving a first campaign (1806-10) and a second (1817-21) coincided with Latrobe's maturation and permitted him to perfect his thinking.

In the Baltimore Cathedral Latrobe undertook a large compromise-plan church, that is, one that reconciled a centralized space with a longitudinal space, in this case a crossing dome reconciled with a rectangular body fronted by western towers. He devised great masonry vaulting systems, ingenious arrangements for lighting and solid yet vivid neoclassical forms of a striking coherence. And more than other large works that drew forth Latrobe's finest powers in his maturity, works like the National Capitol and the Baltimore Exchange, his evolving conception was unalloyed by the efforts of other designers or conditioned by an existing fabric.

Many have considered the Baltimore Cathedral to be Latrobe's masterpiece as an architect. Latrobe might have differed with them. Throughout his life the Bank of Pennsylvania remained his favorite work. To some degree the happy circumstances surrounding it may have colored Latrobe's view: it stood as a radical departure, decisively demonstrating the architect's novel principles and establishing his reputation at the nation's center of culture and patronage; the bank's form approximated an ideal, the classical temple; rarely did he work with such a sympathetic client, and the work proceeded expeditiously; the materials and execution of the Philadelphia building set a spectacular standard: Latrobe saw its completion and² enjoyed its acclaim. The cathedral could not match the bank in all these points, but the Bank of Pennsylvania was an early work, one that preceded a significant degree of professional growth on the architect's part. The Baltimore Cathedral, it could be argued, more fully reflected his maturation into a more skilled and subtle architect, demonstrating that, in Latrobe's responses to challenges of greater scope and complexity.

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Latrobe's success at the cathedral was the result of the efforts of many men who labored to bring the great church into being, but Latrobe owed an especial debt to two individuals: Bishop John Carroll (after 1808, Archbishop) and President Thomas Jefferson. Jefferson's influence entered only during the second building campaign and will be considered later in the discussion. Carroll, a man of sagacity and cosmopolitan experience, looked with insight upon the needs that the cathedral was to fill. In his own words (from pastorals of 1803 and 1808 respectively), it had to "stand as the evidence of [American Catholics] attachment to the unity of episcopal government, as well as of their duty in faith," and to serve as "a monument of general gratitude ... and ... an example of the majesty and solemnity of divine service, conducted according to ... our liturgy."

Carroll recognized the necessity of having a designer of Latrobe's sophistication in building a great church. Moreover, a friendship developed between him and Latrobe. An important but largely unknown part of the history of the cathedral is the history of the discussions between the two men, not only in Baltimore but also in Washington, where Carroll visited his relatives. Carroll's recognition of the need for Latrobe's abilities and his friendship with Latrobe both came into play during a potentially dire breach between the architect and the lay officers in 1806-07. Perhaps it is not too much to say that Carroll's endeavors as mediator saved the cathedral from bungling hands.

The church was indebted to Carroll in architectural terms, too. In particular, the form of the chancel and the form of the transept arms both came out of his requests and contributed materially to the success of the design. One must leave open whether any feature of the cathedral in any way reflected a preference of Carroll's founded on John Tasker's chapel (1786-87) at Lulworth Castle, Dorset, where Carroll was consecrated bishop in 1790. Henry Russell Hitchcock has touched on this issue, which also has some tradition of speculation Baltimore. The documents say nothing germane, and Carroll had ample exposure to Western ecclesiastical architecture by virtue of his wide travel abroad.

The early history of the cathedral emerges from the history of this denomination in the United States. At the close of the eighteenth century, American Roman Catholics faced the challenge of transforming themselves from a disorganized, minority, lately relieved³ from oppression, into a centralized body. American Catholicism lacked not only a cathedral but also an immediate tradition that could guide the faithful in creating so complex a structure: In a bull issued on 6 November 1789, Pope Pius VI raised Baltimore to the stature of a see (the first Catholic one in the United States — the diocese embraced the entire country). Carroll was elevated to the bishopric and commissioned to build a cathedral as circumstances should permit. Until a new structure was built, Carroll had a pro-cathedral, St. Peter's. This brick building (c. 1770 ff.: enlarged 1784 and later) stood on a slope at the north of town, at the northwest of the intersection

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of present-day [1994] Charles and Saratoga streets. Because of anti-Catholic colonial legislation, externally it resembled a home, a rambling two-story and garret dwelling.

At their first meeting, on 29 December 1795, five days after the incorporation of the congregation, the board of trustees resolved to open subscriptions to pay for a cathedral and to purchase land adjacent to six lots already owned on Philpot's Hill at the east end of the city. The acquisition of ten more lots in 1796 resulted in a parcel that ran northwest and northeast from the intersection of Exeter and Stiles Streets on the northwest border of present-day [1994] Little Italy. But raising the funds to build proved a long-drawn-out process. After an abortive attempt to secure legislative permission for a lottery to raise \$40,000, the trustees obtained permission for one to raise \$30,000, and commenced the operation of this lottery in 1803. In his pastoral of 1803 and two subsequent ones, Carroll appealed to American Catholics at large for contributions.

By 1804 the board intended to execute a project, the form and the author of which remain speculative. Latrobe's letter to Carroll of 10 April 1804, the only account of the design, merely records some Fifty-four Corinthian columns of 30 feet in height on the interior and a "tower or dome." William Thornton may have made this design. His wife's dairy for 1800 records that Carroll approached Thornton after the Baltimoreans had received several designs that they did not like, and that Carroll seemed pleased with the project that Thornton produced. If Latrobe's designs did supersede one by Thornton, that cannot have helped the relations between the two men.

As for Latrobe's letter, Thomas Fitzsimmons, the architect's friend and a prominent Roman Catholic layman from Philadelphia, had supplied Latrobe with the cathedral design, and Latrobe had agreed to volunteer his opinion to Carroll, whom he knew by reputation. After commenting unfavorably on the project, he wrote that, if the bishop would send him basic information, he would submit a design himself. As he customarily did in the case of such institutions as churches and schools, he offered his services for free and would ask only reimbursement for his actual⁴ expenses. In a later letter to Carroll and the building committee, one of 5 August 1806, he gave reasons for his involvement: he acknowledged the professional advantage and an element of "egotism," but he named his fundamental motive as gratitude to a mysterious Roman Catholic clergyman to whom "I owe my existence."

He did not succeed in providing a design until 1805, when he sent Carroll a letter on 16 April accompanying an unfinished book of drawings. Latrobe had reported on 8 April that his clerks were making the "necessary copies." He offered the Baltimoreans a choice between two projects, one for a larger, longitudinal-plan Gothic Cathedral (Design 1), identified as more

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expensive and Latrobe's preference, and the other for its smaller compromise-plan "Roman" cathedral (Design 2). Latrobe had conceived each so that the board of trustees (his actual patron, headed by the bishop) could construct it gradually from the east (liturgically) as funds permitted. Of course Latrobe intended vaulted masonry construction for both.

In his "Remarks on the proposed erection of the Cathedral and the designs herewith submitted," dated 27 April 1805. Latrobe revealed certain of the principles behind Designs 1 and 2. He maintained the unique propriety of the Latin cross for the plan of a Roman Catholic cathedral. He explained his method of calculating the size of the smallest acceptable choir (for which he had in mind a choir screen underneath an organ loft) and of then working from this module to form a Latin-cross plan. Operating by his method, he had given an interior length of 177 feet to Design 1 and of roughly 141 feet to Design 2.

As to the choice of style, he stated in the "Remarks" that

The veneration which the Gothic cathedrals generally excite, by their peculiar style, by the associations belonging peculiarly to that style and by the real grandeur and beauty which it possesses, has induced me to propose the Gothic style of building in the first design submitted to you, the Gothic style of Cathedrals is impracticable to the uses of common life, while the Greek and Roman architecture has descended from the most magnificent temples to the decoration of our meanest furniture on this account, I conceive that the former has a peculiar claim to preference, especially as the expense is not greater in proportion to the effect. The second design, which is Roman, has equal merit with the first in point of plan, and structure, and I therefore submit the choice to You entirely, having myself an equal desire to see the first or the second executed, my habits rather inclining in to the latter, while my reasonings prefer the first.

In truth, Latrobe preferred the Gothic project. Even⁵ if he had not given away his preference elsewhere in writing, a comparison of the drawings for Design 1 and Design 2 would expose partiality: he had given much more attention to the Gothic project.

One can confidently attribute this to Latrobe's love of innovation. Neither design was wholly unprecedented in the United States, as Latrobe knew. His travels had to have shown him the west towers and portico of the First Presbyterian Church in Baltimore of c.1791 and c.1795, by John Dalrymple and James Mosher, and must have acquainted him with the Gothic of the second Trinity Church in Manhattan of 1788-94, by Josiah Brady. But both Latrobe's designs were fundamentally innovative, and not least of all, from Latrobe's point of view, in that their nearest American antecedents were artistically inferior to those he proposed. With regard to innovation, though, Design 2 could not contend with Design 1, as witness Latrobe's comment on the popularization of the classical tradition.

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Latrobe may have begun to consider the Gothic style for the cathedral from a very early point: Three ambiguous references from May 1804, shortly after his review of the early design, suggest that he had loaned Joshua Gilpin a Gothic cathedral design or had borrowed a volume he called "*Gothic Hints*." Apparently he felt a need for better sources, but as he wrote his brother Christian Ignatius on 6 February 1805, about the time he began his two surviving early designs, he could not lay hands on any satisfactory published material regarding the Gothic. Nonetheless, "the style, and even the detail is so impressed on my imagination that I hope to succeed in escaping the censure you so justly bestow upon Wyatt, whom among architects, I have always put into the same rank that Shenstone and Phillips hold among poets." In his biography of Latrobe, Talbot Hamlin recognized that the architect had drawn upon the example of Kirkstall Abbey in Yorkshire by way of his own drawings, today [1994] known only from a derivative drawing in the first volume of his "*Essay on Landscape*" of 1798. Equally important, he also drew upon the Gothic manner of George Dance the younger, and he may have known well Dance's work at St. Bartholomew-the-Less Church, Smithfield, in London (1789-90). Dance's south facade for the London Guildhall (1788-89), a curious compound of oriental, Gothic, and classical influences, may have some bearing on the design, too.

Certainly the project represents the mind of a neoclassicist, who had a limited comprehension of the Gothic. To no small extent, his Gothic buildings look like neoclassical buildings in disguise. Typologically, a constant feature of the Gothic designs is a motif or pattern that has precedents both in medieval forms and within Latrobe's neoclassical repertory; such a feature often gravitates toward the neoclassical. Thus, the pattern that Latrobe varied for the fronts of the four limbs of Design 1 is related both to the east⁶ front of Kirkstall Abbey and to the monumental round-headed arch, reminiscent of a Roman triumphal arch, that Latrobe often employed, as in his Bank of Pennsylvania elevations. Indeed, Latrobe's use of the tripartite monumental arch at the east and west ends of the church, although not unparalleled in Gothic architecture (for example, the west front of York Minster, exclusive of its towers, strongly resembles a triumphal arch). Design 1 exhibits a direct and crucial response to the Gothic, however. In the "Remarks," when Latrobe referred to the capacity of the Gothic to stimulate⁷ veneration, he referred to the sublime. Mental trains of association, he wrote, partly produced the feelings in question. The drawings for Design 1 show other means to this end, particularly within the seeming vastness of the "lengthened Vista" (the words of the "*Essay on Landscape*" apropos of the sublime ruins at Kirkstall Abbey); the soaring verticality; and the lighting, Latrobe's most distinguished essay in the effects of light to date. By setting lancet windows high in the walls or the side aisles, the architect not only blocked out the distractions of the external world but kept the level of illumination on the cathedral floor low. His clerestory windows, probably inspired by Dance's at

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St. Bartholomew-the-Less, would have created a brighter area under the central-aisle vaulting. He wished to fill four enormous windows with colored glass to filter and tint the *Sun's* rays. Best of all is his crossing tower, where a vertical vista intersects the horizontal one. Here, from the dimness of the pavement one would have looked up the dizzying shaft of the crossing, through a fall of brightness and past a kind of vaulted oculus, to catch sight — but only a partial sight — of the brilliant light within the lantern and of the sky beyond. (Surely Latrobe remembered the effect of the crossing tower at York Minster, and the crossing of Ely Cathedral also seems recollected.)

In 1798, in the first volume of his "Essay on Landscape," he had endorsed the "general rule, to throw the principal lights into one mass" in landscape drawing. He would demonstrate that he understood the applicability of the same principle to architecture when he wrote Jefferson on 29 October 1806 to argue against multiple skylights for the hall of Representatives and a "*Unity of light*," "a large Mass of Central light." These key statements establish his awareness that an architect could mold light the way a painter did. Design 1 for the cathedral establishes the degree of sophistication that he had attained with this possibility by early 1805, when he created a scenic or picturesque composition for sublime ends. His design depends upon a principle of interior illumination, a principle of the mystery of darkness and the mystery of light. It depends upon the principle that even if the necessary windows remain partly or wholly visible when light concentrates unreachably high overhead and falls into gathering dimness, the chiaroscuro has the power to induce an elevating awe in the observer who stands on the darker level.

He was already able to apply something of such effects to his neoclassical designs, as in the Capitol's south wing vestibules devised the year previously. But in 1805, Latrobe pursued the possibilities further as Gothic characteristics, in an attempt to create an appropriate setting for Roman Catholic ritual. His manipulation of light explains the odd-looking exterior fenestration pattern along the sides of Latrobe's cross. He shaped the side-aisle and clerestory windows⁸ according to the illumination that he wanted within, so that broad pointed lunettes seem to rest precariously over acute lancets (something much more disturbing in elevation than it would have been if realized, because they would have occupied different planes). The clerestory lights strongly recall the semicircular lunettes both Latrobe and Dance often employed in high positions on the walls of their classical buildings. The narrow lancets ruled out a skeletal treatment along the side aisles, Latrobe's interest in skeletal structure was instead shown in the nave arcades, and he wanted to keep the crossing supports relatively spare. Like other effects seen here, these were not reserved for Gothic designs; from 1815 he would develop another such space as this crossing, with reductive structure, elevated vertical panes, vertiginous, vista, and mysterious chiaroscuro for the hall of the Baltimore Exchange.

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Latrobe devoted close attention not only to his modular plan and to the modeling of the interior volumes with light, but also to a third matter, the composition of the elevations that would envelop his interior. After creating an extremely vertical facade pattern, he revised his conception. He tempered the upward lines by strengthening the horizontals, which he used to bind the composition together more firmly. He also made other revisions. His rethinking produced handsome results.

With Design 2 Latrobe offered what he regarded, at the time, as the minimum in workable accommodations for a cathedral, investing in it relatively little of the enthusiasm seen in the Gothic design. He does not seem to have carried it much beyond its typological basis. Latrobe's compromise-plan church was to consist in principle of a Greek-cross core lengthened into a Latin cross by the addition of a vestibule-like area (itself on a cross-axial plan). At the crossing, a⁹ domed rotunda 40 feet in diameter would have spread to nearly the full internal width of each limb, including its aisles, and thus constituted a strong centralizing force. A deep Corinthian portico and twin cupolas would have dignified the west front, while lesser porticoes would have adorned the transept fronts.

In respect to the sources for Design 2, one wonders what Latrobe knew of the literature on the centrally planned church in the tradition of the fifteenth century Italian theorist Leon Battista Alberti. More definite connections were identified in 1917-18 by Fiske Kimball, who associated Design 2 with the precedent of both Germain Soufflot's Sainte Geneviève in Paris (1757-90) and Wren's St. Paul's Cathedral in London (1675-1710). The history of the cathedral designs recurrently points to these two buildings, and Latrobe left other evidence of his interest in them. For example, inside the rear cover of Latrobe's fifth sketchbook are rough undated sketches of St. Paul's in plan and perspective. Again, writing his "*Memorial ... in vindication of his professional Skill*" in 1818, Latrobe mentioned "the enormous dome and cone of St. Paul's" — he cited Wren's comments in the Wren family compilation of documents, "*Parentalia*," published in 1750 "and the triple dome of St. Geneviève."

In the case of Design 2, he must have had the French church in mind as he laid out the Greek-cross constituent of his plan. Soufflot's example may also in principle have influenced Latrobe to pare his construction. For its four nearly identical arms, the nave, choir, and transepts, Design 2 calls for piers joined by columnar screens and thin walls, these assemblies offering lateral support for the wide barrel vault in each arm. More specifically, Sainte Geneviève may underlie the treatment of the screened bays. Latrobe assuredly had St. Paul's in mind when he decided on two other elements. On Wren's example, to instill a strong centralizing quality into a dominantly longitudinal interior space, he made his domed crossing the width not merely of the center aisle but approximately of the center and side aisles together. Occurring in combination with such planning, Latrobe's west front, with its portico and gestures toward twin towers, likewise points

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to the London cathedral as an ancestor. Other possible prototypes are debatable — for instance, did Wren's Great Model design for St. Paul's (1673), another compromise plan based upon a Greek cross plus a vestibule, enter Latrobe's thoughts?

Design 2 does little justice to its great sources of inspiration. Its interior, lit from lunettes high in the wall and from an oculus in a quite tentative dome, boasts only a very pedestrian version of the lighting principles behind Design 1. (The lunettes may have the conscious precedent of another source, the younger Dance's church of All Hallows, London Wall, in London (1765-67).) The internal treatment of the limbs of the Greek cross is awkward and, in¹⁰ spite of a dome with more intricate coffering than that at the Bank of Pennsylvania, there remains a bluntness to the stereometry and an independence among the volumetric constituents that seem vestiges of the youth of this conception and its genesis as an assemblage of features.

The elevations, which recall Soane's Bank Stock Office at the Bank of England in London (1792-93), nonetheless come off worse than the interior. One suspects that Latrobe used lateral porticoes in an attempt to give the cathedral something of the qualities of an ideal central plan church with four identical fronts, and that, to rein in the expense of his numerous Corinthian columns, he decided against a colossal order and in favor of a lower order beneath an attic story. This economy sacrificed some of the design's monumentality. Here too one senses assembled but not reconciled desiderata — as in the discordant, cross-wise arrangement of incongruent lunettes and panels on the flank of each arm; or in the conflict between the axial lunette windows in the attic and the portico roofs. For all its flaws, however, Design 2 held enormously rich potential, contrasting conspicuously with the type of church entrenched in the United States, the galleried basilican church with its tower and perhaps a portico at its entrance.

On 16 April 1805, in the letter that accompanied his book of drawings, Latrobe had written that he had both designs "completely digested and ready for execution." That statement does not fit the presentation drawings of either design at all. At the stage that they represent, Latrobe had not finished working his way outward through the projects. For instance, the Gothic lantern is merely a notation of what he wanted for interior and exterior effect: he had not reconciled it with the crossing piers, which would scarcely seem adequate to support it. In Design 2 he gave the dome more convincing support, with massive piers and arches, but he lit the dome from a skylight, an element that he had already virtually disavowed: In April 1803, responding to the skylights proposed for the U.S. Capitol, he wrote that even when "made of thick coach glass, with metal frames," skylights "are great evils" compared with "Lanthorn lights, that is, lights with upright Sashes and close[d] tops." This seems to have been one of the principal lessons learned since the Bank of Pennsylvania, yet he seems again to have been seduced by the visual simplicity and antique benediction of an oculus along the lines of the Roman Pantheon's.

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Latrobe made no attempt to give the Design 2 dome the prominence that it would need in order to culminate the external composition of the cathedral.

Although some features were less than fully digested, Latrobe may well have meant what he wrote on 16 April about the design's completeness. He had probably continued his work on the designs after Mills and DeMun had begun the presentation drawings¹¹ bringing his thinking at that date beyond what the drawings showed. Encouraging this idea is the fact that the dimensions and descriptions given in the "Remarks" Latrobe submitted on 27 April do not fully agree with the drawings. After discussing his design in the "Remarks," Latrobe gave the Baltimoreans counsel, largely toward the goal of stretching their funds as far as possible. In his letter to Carroll of 28 April, Latrobe wrote that either design would cost about the same amount. He estimated sums in the area of \$60,000 for executing the respective east-ends and transepts, exclusive of much finishing (for example, postponing the side porticoes in the case of Design 2). The execution of a major order of freestanding columns in stone, an expensive proposition, contributed to making the total cost of Design 2 equal to that of the Gothic alternative, some 37 feet longer.

Subsequent events highlight five points from the "Remarks." Latrobe advised the bishop and the building committee that, having once settled on a design, they should not alter it in the least. He cautioned them that the success of a building enterprise depended in great measure upon choosing a good clerk of the works. He requested that he have full communication with the clerk of the works. He could foresee the completion of either design in eight to ten years. And he recommended constructing the foundations so that burial vaults could be added after the roofing of the cathedral

On 18 May 1805 Latrobe wrote his brother Christian Ignatius the optimistic assertion that "in a few weeks I shall begin the Gothic Cathedral of Baltimore." On 22 June the trustees concluded that their funds ruled out both designs (and also resolved, that they had the right to apply the lottery proceeds to building on a site other than the property at the east of the city). On 9 July Latrobe wrote Carroll that:

By tomorrow's post I shall have the honor to transmit to you a plan for your Cathedral so reduced in size as to come within the dimensions you have fixed as your maximum. I have also endeavored to meet all your ideas, and among others the circular form of the end of the Choir has been adopted. The Church retains also the form of a Latin cross, has a dome, and is so contrived that the porticos, and indeed the internal Columns may be the work of a future day.

The drawings for this new design, Design 3, have disappeared. This should be the point when Latrobe contracted the domed crossing to the width of the nave only, without the additional breadth of the aisles. The length of the cathedral, exclusive of the west portico, now measured

¹¹ Scanned page 436 column b

138 feet 10 inches, a slight reduction from Design 2 (exclusive of its portico and its sacristy Design 2 would have measured about 144 feet). He reported that the new breadth ("externally")¹² of the nave and choir (including their aisles) would be 65 feet 4 inches, an increase of nearly 20 feet over Design 2. The architect wrote that he submitted the design as "the utmost effort of my talents applied in the manner you advise;" he asked that his prospective patrons accept or reject it in toto, and not attempt to concoct alterations to it.

Latrobe's letter, the only clue to the contents of Carroll's communication, indicates that his original offering had undergone offensive criticism in both official and artisan quarters, but not from Carroll. The Gothic design should not have struck a wholly unresponsive chord in Baltimore — Carroll, appealing for contributions for the cathedral in a circular of 1808, would state the goal as the performance of worship ship "in that impressive manner, which tends so much to elevate the beholders to the contemplation of things celestial." The lack of documentation leaves one to speculate as to why Design 2, not Design I, had a sequel. One infers from Latrobe's letter that Carroll had asked him to revise the neoclassical project and that Design 1 had died in Baltimore. Had the Baltimore officials feared to give the highest Catholic church in the land a style that the enemies of Catholicism could associate with an alien and supposedly dark age? Had a majority of the officials themselves felt repulsed by the novelty or the sinister associations of the Gothic? (In the 9 July letter, Latrobe by implication contrasted Carroll's "freedom from prejudice" with the views of his lay dignitaries.) Had some builder detected the inadequate support for the Gothic crossing tower? Did the Baltimoreans feel, convinced, in spite of Latrobe, that Gothic cathedral automatically had to cost too much? Did they simply recognize that the neoclassical project lent itself better to reduction?

On 22 July 1805 the trustees voted unanimously to adopt Design 3, and a week later they put together a three-man building committee, expanded to four on 23 December. Because of a mishap in the mail, only on the latter date, five months after the fact, did Latrobe learn from Carroll that the board had adopted his design. He also learned then that they wished an increase in width. By the time of his letter of 26 December 1805 to Carroll, Latrobe had made the requested alteration and produced Design 4, for which no drawings survive. He had initially conceived of the side aisles as passages 6 feet wide and had probably expanded them substantially when he increased the overall nave-and-aisle width by more than 19 feet in Design 3, effectively doubling them, to about 12 feet each. In order to suit his patrons' wishes in Design 4, he widened each of the aisles by 5 more feet. No doubt the Baltimoreans wanted the aisles enlarged to hold additional pews, demonstrably the primary purpose of these spaces at least from 1820, the date of the earliest surviving pew plan to the present day.

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With Design 4 there sprung up a recurring theme¹³ in the history of the great church. Assuredly Latrobe's patron felt concern about more than just the scaling capacity per se. Although the financial history of the cathedral is not clear in detail, the sale of the right to occupy the pews and the subsequent rental payments from the pew holders had an all-important part to play. The trustees did not fully work out their pew system until 1820, and the subject barely appears in their sparse minutes before then. But revenue from the pews had supported the pro-cathedral. And a document from the outset of active measures to provide for the cathedral, Carroll's "*Proposals for Subscription, to Build a Cathedral Church*," composed in very late 1795 or early 1796, together with an entry in the minutes 10 April 1810, makes it clear that pew moneys were a conscious issue all along. Evidently, in 1805, the men responsible for paying for the cathedral belatedly-recognized the advantage of having side aisles wide enough to hold pews.

During 1805 the trustees abandoned the idea of building on their property on Philpot's Hill, at the east of the city. They had long considered purchasing from Colonel John Eager Howard the cathedral's present site, one of the most elevated in the city of Baltimore, the hilltop property today [1994] bounded by Cathedral, Mulberry, Charles, and Franklin streets. This location was then outside the city to the northwest, but the development of the city in this direction seems to have motivated the rejection of the Philpot's Hill site. Finding Howard's price prohibitive, however, the bishop and the other trustees reluctantly determined to build on the sloping irregular, and unbeautiful site of the pro-cathedral, St. Peter's, and its cemetery, a short distance south of the Howard site.

The two basic documents for all this date from shortly after the choice of the St. Peter's property. The laity, probably late in 1805, submitted to Carroll the "Memorial of Catholicity in the City of Baltimore." The document, promising the most ample further contributions possible, pleaded with Carroll to convince the trustees to reverse their decision about Howard's land, the memorialists earnestly desired to build the "Monument of their Zeal" on so regular, elevated, spacious, visible, elegant, and — by their argument—economical a site, and the prospect of removing the dead from the cemetery deeply disturbed them. In the undated draft of his response, Carroll, wary about eager promises of money, explained that finances had overridden his and the board's wish to take Howard's property and he gently rebuked the memorialists for objecting to the respectful reinterment of their dead for the sake of a house of God.

With Design 5, which came into being between late February and early March 1806 Latrobe established much of the final plan of the cathedral. In a letter to Carroll of 26 February 1806, he declared¹⁴ himself perfectly satisfied with the general scheme, as he had not been "since our last

¹³ Scanned page 437 column b

¹⁴ Scanned page 438 column a

melting down of the original plan in the Roman taste." This new design resulted from Latrobe's recognition that the widening of the aisles had unbalanced the statics of the cathedral and produced a discordant mixture of unequal arches. Latrobe decided on an increase in length as the most practicable solution, obtained permission to add 15 feet, and with a slight additional increase, produced a plan 170 feet 10 inches in length, including the west portico but excluding the portico steps. (Latrobe arrived at this total only after miscalculations in his letter of 6 March 1806).

Out of the successive changes there had emerged a plan of a rare type, a Latin cross developed from two interlocking Greek crosses, possessing a fine geometric discipline. From Design 2 survived the idea of a domed Greek cross used to create the head, the arms, and the upper part of the stem of a Latin cross. The second, western Greek cross used the stem of the first for its head, had a groin-vaulted crossing, and largely comprised the nave or the stem in the Latin cross of the overall plan. This western cross probably descended from the vestibule-like western area of Design 2, while the pattern of inter-locking crosses presumably originated with Design 3. Presumably, too, from Design 3 came the reduced dome, only as wide as the 30-foot center aisle, and from Design 3 came Carroll's apse.

As Latrobe wrote Carroll on 6 March 1806, Design 5 reduced the number of exterior and interior columns from a total of thirty. Within, Latrobe used a monumental order, largely of antae but with ten columns of the Attic order, that of the Tower of the Winds: a curved range of six were to stand in the apse and a screen of four would be positioned just inside the west door. Outside he gave the west front a range of six columns of greater diameter (3 feet compared to 2 feet, 3 1/2 inches) and of the same order. At Carroll's wish — so Latrobe wrote to the bishop on 26 February 1806 — he deleted the side porticoes, extending the transept in their places. Thus, where Latrobe developed the eastern Greek cross into the extended arms and apsidal head of the Latin cross, the plan owes very much to Carroll.

With Design 5 Latrobe introduced an ingenious (not to say overingenious) treatment of the elevation. Externally he proposed an ostensible basement story, a continuation of the portico platform. Upon this he set an intermediate zone 2 feet 6 inches high, its top at the level of the cathedral floor. Near the west end, at the axial doorway and passing through the columnar screen, a pair and then a trio of internal steps rose from the level of the portico pavement to the church floor; the vaulting of the crypt level correspondingly rose through the intermediate zone to just under the floor. From atop the intermediate zone rose the walls of the church body, opened into a¹⁵ tier of round-headed windows beneath a tier of lunette windows.

¹⁵ Scanned page 438 column b

Latrobe had a number of reasons for using the ambiguous intermediate zone, an element belonging to both the basement and the body, yet neither of them. He explained his principal purpose in a letter to Carroll of 7 May 1807. It was apparently Design 5 that diminished the west portico to the depth of a single range of columns— Design 2 had the four outer columns of an inner range (thus showing a second intercolumniation on the flank), while Design 4, with 30 columns, probably had an inner range of two or four. Latrobe regarded the new, smaller portico as too weak for the building mass. To compensate, he made the order as tall as reasonably possible. To raise its cornice to the top of the walls would have cost too much, he thought, so he carried the order up only as far as the sills of the lunettes, for about half the expense of a colossal order. This two-part elevational scheme, with an attic story for the lunettes over the order, was effectively that seen externally in Design 2 (without the intermediate zone), which showed its rather divisive effect. But with Design 5 Latrobe found there to be so little height between the church floor and the lunettes that externally an order and a principal story of this height would have looked much too weak for the attic. Therefore he sank the portico floor by 2 feet 6 inches, gaining that much extra height for the portico order, while on the exterior walls he lowered the basement offset below the main floor level, placing it at that of the portico pavement, and put another offset at the actual level of the main floor, creating the intermediate band. (This tinkering with the basement face of course did not affect the height of the crypt story within.) Latrobe wrote of other advantages to his handling of the platform and floor levels. On 8 March 1806, writing Rohrbach a letter to cover the plan of the cellar or crypt story and the setting out of construction, he said that he had chosen this treatment partially in accommodation to the site, which sloped downward from the east. To the bishop on 6 March 1806 he mentioned that the internal steps would produce "a most admirable effect ... on entering the Church" a reference to the scenic effect of mounting toward and through the western screen of columns.

With its tight geometry, stating and then varying the theme of the Greek cross, and with its Latin-cross symbolism, the plan of Design 5 has merit. In section the limbs of the crosses generally exhibit a superior conception of space and structure in comparison with their counterparts in Design 2. But the interior still suffers from excessive compartmentalization. In this, and in its humble 30-foot domed crossing, which lacks the power to pull the other compartments into a monumental whole, its claim to grandeur is compromised. Walking through this building from the west, one would have had roughly¹⁶ the sensation of passing from one small Greek-cross church into another, somewhat more ambitious Greek-cross church, The accumulation of piers around the domed cross would have interfered with the view of the altar from the side aisles. The visibility of the celebrant was not a liturgical necessity, and Latrobe found the idea of an altar screen acceptable or perhaps even desirable. One must doubt, though, that Baltimore's Roman Catholics would have paid for pews with views obstructed by piers. The

¹⁶ Scanned page 439 column a

future, course of events indicates that certain of the lay officials took this matter very much to heart. Design 5 would also have lain open to the criticism that, by choosing to vault the cathedral, Latrobe had taken up potential pew space with the requisite piers. As to another matter, at whatever point Latrobe instated the range of windows below the lunettes (absent from Design 2), his conception of the interior lighting became unremarkable. A notable exception however, would have been the oculus that he provided for the chancel semidome of Design 5.

No elevation of Design 5 survives to spell out how well the facades had fared. At the west front the lunette and the portico roof continued a contrived coexistence (though the vestibule introduced a gallery between the westernmost coffered bay and the western lunette). Writing Carroll on 7 1897, Latrobe himself referred to the "not very elegant, idea of an attic," and doubts were probably emerging as well about the effectiveness of the intermediate zone above the basement offset. But the massing of the flanks as reflected in plan had essentially taken, on its final form, a form more pleasingly proportioned and more clearly related to the geometric order within than had that of Design 1. Dominated by the alternation of narrow and wide intervals, the bays advanced and receded in a lucid and grand rhythm. Upon eliminating the lateral porticoes, Latrobe gave the north and south faces of the transept monumental arched recesses, an element previously seen in his Gothic design and reminiscent of Roman commemorative arches. The two arms of the Latin cross, no longer the width of the three aisles as in Designs 1 and 2, became the width of the north-south aisle only, and this form inevitably worked to benefit the exterior visibility of the dome. At the time of the extant [1994] section of Design 5, however, Latrobe had still not directed much attention to the dome.

While Latrobe worked on Design 5, a development no less momentous unfolded in Baltimore. On 26 February 1806 the Sulpicians of St. Mary's Seminary, the cathedral clergy, urged Carroll to arrange for the purchase of the Howard site. (Latrobe's friendly relations with the Reverend William Du Bourg, the founder and head of St. Mary's College, may have had a connection with this.) The Sulpicians wished Carroll to complete "a Monument intended to last for ages," rather than to spoil an irreplaceable opportunity out of a concern for economy and a desire to see the building finished.¹⁷

According to a biographical account published in 1839 and somewhat inaccurate in parts, Du Bourg raised enough money toward the purchase of Howard's land to encourage Carroll to raise the rest. On 13 March 1806 the trustees resolved to buy the Howard property for \$20,571.60, a sum that probably represents a reduction in Howard's asking price. On 7 July 1806 Carroll laid the cornerstone of the cathedral. The intended design, that on which construction would soon begin, was Design 5.

¹⁷ Scanned page 439 column b

But trouble had been brewing for some time, no doubt ever since the criticisms directed against Latrobe in the summer of 1805. On 26 March 1806 Latrobe had had to write Carroll to refute the anonymous criticism that he had designed the foundation walls too thin. Carroll's discussion of the crypt level led Latrobe to conclude that his nameless critic had read the sections upside down and the architect now held to allow for the possibility of a wooden floor over this story, after thinking that his discussion of vaulting in the presence of John Hillen, a member of the building committee, had settled the matter. After a visit to Baltimore, 18 April found Latrobe writing his pupil Lewis DeMun of his "terrible battle ... with Hillen whom I found at the bottom of all the Bishop's observations, Another such battle will drive me from the field." A not entirely accurate letter to Carroll of 20 January 1807 and a more carefully detailed letter to the trustees dated 24 January but revised in early February, appear to refer to this incident as well as to another ominous episode, one involving unauthorized deviations from Latrobe's design. These deviations drew a complaint from the architect and a resolution by the building committee against such irregularities in the future. Worse followed. In Baltimore, on 5 August 1806, Latrobe wrote the bishop and the building committee "on my arrival here this morning, I find that alterations which appear to me very material have been made, and that others are projected." He withdrew from the undertaking and demanded his drawings back. The potentially disastrous rift did not close until March 1807.

From Latrobe's letters to the Baltimoreans during the period of alienation it emerges that Hillen and Rohrbach had concocted their own modification of Design 5 and had begun to see their creation into execution. The initiative came from Hillen, and Rohrbach, who failed to write Latrobe at all, despite the architect's express wish, acquiesced. Hillen opposed vaulting, at least partly on the grounds of expense. Rohrbach excavated foundations too shallow to permit vaulting the crypt.

One can learn something about what the two men projected in place of Design 5 from their alterations to the crypt plan. On Latrobe's drawing another hand, which must be Rohrbach's, inked an incomplete plan of the main story, or possibly an incomplete plan of the lower story with elements of, the¹⁸ articulation of the upper story overlaid. Whatever its primary level, the Hillel-Rohrbach plan thickened the walls of the principal story toward the inside even as the two men sought to sabotage the idea of vaulting the church, they considered Latrobe's walls too thin. And more fully drawn in at the east end, a system of columns and half-columns on rectangular supports — perhaps plinths or pedestals belonging to the main story, perhaps piers belonging to the crypt — replaced Latrobe's piers. One suspects that Hillen and Rohrbach's preference for slimmer, columnar supports represents an interest in increasing the pew space and improving the

¹⁸ Scanned page 440 column a

visibility of the main altar. The subsequent evolution of Latrobe's designs lends credibility to the hypothesis of a persistent interest in these issues at Baltimore.

The warm regard between Latrobe and Carroll and the bishop's efforts as a mediator ultimately brought about the reconciliation between the architect and the lay officials. Latrobe, who in the event of a final split meant to publish relevant documents in order to prevent the association of his name with a Hillen-Rohrbach cathedral, wrote out his simple terms in a letter to the building committee of 13 December 1806. As he had specified, and they had agreed before, they were to permit no change in his design without conferring with him and receiving his approval, and they were to keep him informed of progress. In addition, and to these same ends, Latrobe insisted that Hillen was to cease to interfere in the design and construction of the cathedral, although Latrobe had no objection to Hillen's role in contracting. A period of confusion ensued to which the bishop inadvertently contributed. But in the subsequent process of clarification and reconciliation he played a great role. Conspicuously, he talked Latrobe out of abandoning the cathedral and he helped Latrobe frame the final form of a statement of position to the trustees that Latrobe drafted on 24 January and had revised by 15 February 1807. On 13 March the trustees resolved that Latrobe's design "be strictly adhered to, and no alteration whatever be made therein, without the Joint consent of the Trustees and the Architect." On 18 March Carroll wrote Latrobe of the resolution. On 1 April the trustees received Hillen's resignation from the building committee. And at some point the Reverend Francis Beeston, the rector of St. Peter's and the board's treasurer, became Latrobe's contact for much of the correspondence regarding the building of the church.

During the first part of 1807 Latrobe revised Design 5. Letters to Carroll give a loose outline: by 6 January Latrobe had accommodated his design to the Hillen-Rohrbach alterations as far as he then could; on 25 March he requested that Rohrbach send a meticulous plan of the foundations; by 28 April he had learned of Rohrbach's unwillingness to send the plan; but on 7 May, when he wrote a letter to accompany plans¹⁹ of the crypt and the principal story and a west elevation, he stated that he had brought his design to an advanced stage of digestion. The relations between the Hillen-Rohrbach changes in the construction and this revision of Design 5, as well as the later phases of the church remain uncertain. Using the correspondence and revision of Design 5 main-floor plan and longitudinal section, one can propose something about the nature of this phase of the fifth design.

As to the, basement, a letter of 15 January 1807 that Carroll wrote for the trustees acceded to a vaulted lower story provided that Latrobe did not undo Rohrbach's work at the east end, which, the letter stated, would never be used for interments. Before too long, however, Latrobe apparently won permission to vault the entire story, whereas vaulting the main story must have

¹⁹ Scanned page 440 column b

remained at issue past the architect's letter to Carroll of 5 March 1808. Changes in the main story's plan would be especially consequential. It seems from the modifications in dimensions inscribed on the Design 5 drawings and from other evidence that it was at this point that Latrobe materially trimmed down his interior piers. The freestanding crossing piers, formerly over six-foot square were reduced by more than a foot in both depth and width. At least for the moment it must remain uncertain whether anything that Rohrbach had done to the foundations had a bearing on this decision or whether Latrobe had a free hand in lightening the supports. This resulted, of course, in broader openings between the piers, and one suspects that the change sprang ultimately from criticism about the interference of the piers with pew capacity and visibility.

To judge from pencil sketching on the section of Design 5, about this time Latrobe probably began to deliberate graphically on the placement of the organ. One can make out a columnar organ gallery at the north end of the transept, and in the plan of the south transept four penciled circles suggest a revision of the number of columns and a matching gallery there. His sketching on the section anticipates the decision to give the minor arches an impost molding that would extend lines from the gallery entablature so that the gallery order would run around the church in abbreviated form, interpenetrating with the major order. From this decision the interior would gain a welcome quality of heightened definition. The screens of columns under the galleries also would add to the scenic effect of the church.

Changes in the transept ends apparently preceded this, one of these creating the axial recesses between doorways; a later change on the plan, rendered freehand in ink, sealed the deep exterior archway on the north. Writing his reasons for this to Father Beeston on 10 July 1807, Latrobe pointed out the disadvantages of an open recess with a northern exposure, chiefly in winter, and noted that closing the archway would offer space for a "very large Organ." Still, he stated his willingness to²⁰ exchange the benefits of closing the arch for the beauty that a deep hollow in the composition would have given to the view of the north front from a distance. Latrobe inked the change onto [the drawing], and the arch was indeed closed. Externally, the south front, retaining its transept recess, became the favored flank compositionally. On 13 October 1806 the board had resolved to stop work for the year when the walls reached the water table, that is, the basement offset immediately below Latrobe's contrived intermediate zone of 2 feet 6 inches. Against the objections that Latrobe voiced in May 1807, the Baltimoreans made him remove that zone on the grounds of economy. Latrobe's letter to Carroll of 25 May reads a little ambiguously, as if the building committee had not yet absolutely decided to lower the level of the church floor to that of the extant construction and the intended portico pavement, but the architect now grudgingly agreed to produce a new design, the sixth, that would salvage the exterior appearance. By mid-July Latrobe was sending drawings for Design 6 to Baltimore, but the alteration gave him lasting trouble. As late as June 1809 he was complaining to Beeston of

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difficulties and calling "this legacy of John Hillen's ... a perpetual blister to me." One does not, however, know the precise relation between Hillen's actions and the elimination of the intermediate zone.

The change subtracted 2 feet 6 inches from the height of the crypt, making Latrobe despair of the utility of this story. He would have to rethink the crypt. (From at least 1808 onward, he was able to provide for a six-inch increase of height from the portico floor to that of the church, for whatever purpose.) The loss of the intermediate zone also cost the building the extra height that Latrobe had gained for the portico. Forced to change the exterior, he did so, and all to the good, for the facades now became thoroughly monumental. On 13 July 1807 Latrobe wrote Beeston and Rohrbach messages to accompany working drawings for the antae of a taller and broader hexastyle portico. He had chosen to make the order the full height of the body of the cathedral, the columns taking on broader diameters and intercolumniations. Now or later he also made the Design 6 portico two intercolumniations in depth, as an undated perspective records. He devised, then, a genuinely monumental entry, but a costly one. A letter to Carroll of 27 December 1812 explains how he could think of increasing expenses so: such a majestic but costly feature as the portico (or the main dome) could wait a hundred years for the necessary funds if need be.

All the fronts benefited from the new monumentality of the colossal order. The divisive attic story vanished. According to the Latrobe description published posthumously in the *Baltimore American* for 16 May 1821, the lunette windows gave place to freestone panels meant for sculpted reliefs of the life of Christ, an embellishment that was never executed.²¹

The perspective of Design 6 displays some of these and permits one to gauge the compositional merit of the flanks, which had essentially reached their final form. Design 5 had laid down the admirably rhythmic massing. Under a dominating pattern of alternately narrow and broad bays, blocks, variously shallow or deep, stepped forward from the major wall plane; the towers were integrated with the narrow bays; and, in the south transept wall, which resembled a triumphal arch, the bold recess contributed its shadowy hollow to a composition excellently suited to receiving that exposure's play of *Sunlight* and shade. The more imposing columnar order of Design 6 exerted its governing power over the subordinate elements, which consisted of a laconic tier of round-headed arches surmounted by the range of relief panels. Both features were firmly enframed by offsets in the stonework.

The perspective of Design 6 shows that Latrobe had by then considered the dome more carefully. He proposed to crown his cathedral with a circular *tempietto*, its colonnaded drum reminiscent of the lower parts of the outer domes of St. Paul's and Sainte Geneviève. Unlike those examples,

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however, the colonnaded drum Latrobe devised was capped directly with a tall dome springing from several steps, and the dome lacked either an oculus or any superincumbent lantern. The result was a clear combination of a dome and tall cylinder much like that Latrobe had employed in his Centre Square Engine House, designed in 1799. He meant to light this element from the sides only. The architect who had struggled with Jefferson against skylights over the hall of Representatives, and who in late August 1805 had praised the light "from upright sashes aloft" well appreciated the merits of this giant cupola as against the oculi of previous cathedral drawings. Raised upon its columnar drum, such a dome would be highly visible from most distances and angles. The slender western cupolas imply some consideration of how to compose them so as to set off the crossing dome rather than compete with it. Latrobe would probably not have proposed so tall a skyline treatment in conjunction with the lower order and shallow portico of Design 5.

Beneath the external dome elevated over the crossing Latrobe may well have intended a segmental dome of masonry such as that at the Bank of Pennsylvania, which rose within a similar square drum and under a similar, if smaller, domed lantern. He may have devised an effect like that of the first, Gothic design, with a longitudinal vista intersecting a vertical, lantern-lit vista at the crossing. Indeed, the constriction of that shaft by a vaulted octagonal gallery near the base of the tower created an effect roughly analogous to a subtly lit, double-shell dome.

Unfortunately, there is little direct evidence of the internal treatment of the crossing of Design 6. One wonders whether Latrobe intended yet another inner²² dome. Such an arrangement was used at St. Paul's and Ste Geneviève, with their triple shells. Latrobe imaginatively explored multiple-shell domes at about this same time, c.1807-09, in his designs for the U.S. Senate chamber and for the Capitol's central rotunda.

Another critical matter also arose in 1806, that of the stone with which they would build. On 13 October the board resolved to use "hammered stone," that is, hammered granite, as the principal material for the exterior of the cathedral. The stone, a black-and-white granite that overall looks gray came from what is now Ellicott City, some nine miles west of Baltimore. Although it did not develop into a major American building stone, it enjoyed a moment of glory in the construction of the cathedral. When the trustees authorized Ellicott City granite, they chose a stone fully equal to the importance of their undertaking, to the excellence of their site, and to the powers of their architect. The exterior effect of the building owes a great deal to the appearance of crisp definition that the hammered granite gives to the articulation, a crispness that comes through even though the angles of the masonry are not at all as sharp and regular as they look from a distance. And the silvery effect of the color with its strong figure created a Lavish and vibrant Impression. It must have been qualities like these that led Latrobe to call the granite

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"remarkably beautiful" in his description of the building published posthumously in the *Baltimore American*.

The choice of Aquia sandstone as the secondary stone set off the tonality of the granite with warm tan. Originally and thereafter, other materials found a place on the facades. Most of these were matched to the Virginia freestone at the time they went into place. Latrobe's architrave and frieze were probably of Roman cement; his cornice, wood; the portico was constructed in 1860s of tan New Brunswick freestone and cast iron. A protective coating was added to the Aquia stone and to other elements in 1962, and today [1994] none of the Aquia stone remains visible. As for the execution of the stonework, the early state of the mason's craft and, presumably, the need to watch the budget did result in imperfections in the granite ashlar. Even on the main front one finds a failure to impose a perfectly regular pattern on the vertical joints and a random incidence of vivid white figures among the blocks. The heights of some courses seem improvised. And the vertical joints along the flanks run less regularly than those on the west facade. Fortunately, these limitations of control over the stonework do not seriously obtrude themselves upon the viewer's notice.

The cathedral gained even greater distinction, however, with a major revision of the crossing and dome that emerged in 1808. The surviving documents record only a rather inauspicious beginning for this seventh design. A letter to Carroll of 5 February suggests that Latrobe agreed to prepare a section²³ that Carroll had just requested (presumably of Design 6), but also had begun working on other drawings in "an attempt to get rid of the four Center piers of your church by wholly altering and I think spoiling the design." On 11 February Latrobe asked Carroll's patience as his confidence in Design 7 grew. He was at work "on a compleat set of drawings to show these great Architects of your city how very idle their criticisms have been," and he had labored

for several days on the project I mentioned in my last, that of removing entirely the four center pillars and returning to the principles of the second (I believe) design. ... All the difficulty of the piers arises ... out of the alterations made by desire of the Trustees. Side Aisles in every cathedral in the world are passages, or walks. I made them the 7 ft. 6 in. wide. But the Trustees would add ten feet to them. I added the ten feet, and then they became of consequence to the room in the church, and the piers were then too big. Thus a seventh design becomes necessary, and I am making it.

Latrobe's letter to Carroll of 5 March 1808 accompanied "the Section of the Cathedral which has been desired. I have at once adopted the scheme mentioned to you ... omitting the four center piers" in response to "the present difficulty," the result of widening the side aisles with Design 4. But on 24 March the trustees, whose minutes recorded no request for a fresh design, resolved to adhere to Design 6, with the *tempietto* and smaller dome. As a matter of fact, their minutes

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nowhere recorded the adoption of Design 7. As late as October 1808 Design 6 must still have been authoritative: Latrobe's letter book copy of a bill for his expenses, delivered on 10 October, referred to "two sets of finished drawings," showing the effect of the finished design now executing and of another in which the four Center piers are proposed to be removed agreeably to a suggestion on the part of the Trustees." Both sets of drawings had been made earlier in the year by George Bridport. The only other potentially pertinent mention in the trustees' minutes was an entry for 20 June 1808, which rather uncommunicatively noted the arrival before the board of "a section, and ground plat" of the church.

These documents do not fall neatly into place, but one might speculate about the motives at work and the timing of events. Criticisms of the cathedral reached Latrobe by February 1808, and one body of criticism regarding the center piers came from lay officials. Without receiving a formal request, Latrobe undertook to remove the offending piers and to do this he returned to a principle of Design 2, the domed crossing that would embrace the width of the side aisles. What complaint can the piers have raised? A new wrinkle on the hypothetical pew problem seems ²⁴ plausible. Latrobe wrote on 11 February that, when he changed the side aisles from mere walkways with Design 4 in 1805, "they became of consequence to the room in the church, and the piers were then too big," an issue that ultimately prompted the seventh design. Widened, the aisles became of consequence to the seating accommodations, and, even after the slimming of piers in Design 6, Latrobe was apparently spurred by critical comments to reduce them further.

The elimination of the piers entailed a sweeping rethinking of the cathedral from the crypt to the skyline. The labor took Latrobe the second-last major step toward the creation of a masterpiece. By dispensing with the four central piers, expanding the dome to the 59-foot diameter permitted by the remaining piers, and transforming the principal crossing back into a rotunda, Latrobe gave the imperfect spatial composition of the interior a splendid solution. With this further opening up of the church, every other space within the body of the building became subordinate to the compelling volume of the rotunda, while the geometric discipline of Design 5 (and the same perimeter wall) survived as the frame for the new arrangement. The great rotunda was now to be capped by a great coffered dome. Beneath the rotunda, in the crypt, Latrobe added reversed arches under the wide oblique arches that allowed the elimination of the corner piers. (Such reversed arches were a standard element in the English structural repertory of the period and one that he had, for example, used under the front portico in Design 5.)

The church remained a Latin-cross composition based upon two interlocking Greek crosses. But the new rotunda sheared off all but a vestige of each limb of the eastern Greek Cross, including, of course, the stem, which had also formed the head of the western or nave cross, leaving the latter as more of a T shape. Latrobe added a saucer dome over the center of the now-incomplete

²⁴ Scanned page 443 column a

nave cross. To the visitor entering from the west, the nave thus would state the theme of a domed cross, a theme that the eastern portion of the church would then take tip in a mightier and still less regular variation. Visually the nave had become a kind of anteroom or vestibule to the rotunda, the power of which would overwhelm every other spatial impression that the interior could create. Such was the new, centralizing authority within this compromise-plan church. So to speak, a revolution of Latrobe's compass upon the plan (faintly visible on [the drawing]) had given the church a core so majestic that it conferred not only unity but also grandeur. The extensions of the original eastern Greek cross persisted: the apse, a happy complement to the curvature of the rotunda, and the internal remains of the major transept.

Though the dominance of the rotunda rendered their pattern inconspicuous, they still laid out the arms and head of the Latin cross, whose stem continued to run through the nave. In an afterthought, Latrobe recognized the merit of moving the side altars²⁵ from the transept to apsidal niches flanking the high altar.

The profoundly intensified artistic power of Design 7 resulted, to be sure, from the wish to make a practical improvement. Certainly the new design dramatically benefited visibility of the service from seats in the side spaces, and it freed space for further pews. It might also have been meant to alleviate the blockage of sound by Latrobe's piers, but Design 7 did not present great benefits in this regard: Cornelius M. Cuyler has asserted that the original pulpit won the name of the "Tomb of Eloquence," and today [1994] even a strong voice has difficulties to contend with, given the acoustical properties of the church, especially those of Latrobe's major dome.

The surviving section that went to Carroll with the letter of 5 March 1808 came from the hands of Bridport, who, after a short spell as a draftsman in Latrobe's office, worked for Latrobe at the Capitol, the Bank of Pennsylvania, the President's House and elsewhere as a decorative painter, the vocation he had practiced in London. The section shows the interior nearing its final form. One sees the admirable definition of a pattern of articulation that meshes the arcuation with a major and a minor order (now both Ionic and derived from the Erechtheum, whereas the exterior order yet remains Attic). Unlike the shallow, stiff lid that Latrobe had put on the Bank of Pennsylvania rotunda, the major dome here swells climactically over the cathedral rotunda. This dome, like its predecessors in Design 2 and Design 5, derived from that of the Pantheon in Rome, but not very closely. It, along with the lesser dome and the chancel semidome, exhibited the preference for more richly treated domes that Latrobe had been developing since the bank. His interest in more intricate vaulting forms and surface treatments would reach full flower in Latrobe's most inventive vaulting designs of the teens, in the second campaign at the U.S. Capitol, in the Baltimore Exchange, and in the design for the Second Bank of the United States.

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In a related matter, the great dome found a subtle resolution with the wall below in the way that the main entablature completed its hemispherical curve.

The interior of the section further exhibits a detailed color scheme, and here, in Bridport's own field, Latrobe may have allowed him more initiative. Generally, the color scheme is on the order of that of the Bank of Pennsylvania rotunda, down to decorative bands painted in russet in "Greek" fashion. The drawing also shows polychrome columns. Not unrelated to Latrobe's proposed use of marble with granite in the Washington mausoleum design of 1800, polychromy here suggests the particular influence of that at the Pantheon, and it closely resembles the effect that Latrobe would devise with marble and Potomac breccia at the Capitol during his second campaign there. Evidently no form of this color scheme reached execution at the cathedral.

The rotunda conferred as great a benefit upon²⁶ the exterior as upon the interior. Design 7 established that the external composition — that, indeed from various vantage points, the Baltimore skyline would culminate in a commanding domical volume. Latrobe accordingly rethought or began rethinking the towers so that they would suit the Pantheon-like exterior of his dome.

Still, there were three defects in the new design. The first was temporary, Latrobe had lost all the ground that he had gained for subtle lighting with the dome of Design 6, and this may account for some of the discontent that he expresses to Carroll in the letter of 5 February 1808 quoted above, in which he felt he was "spoiling the design." In particular, in the section of Design 7 he gave the great dome an oculus about 21 feet across including the rim. He had by no means changed his mind about the undesirability of skylights, but he obviously did not wish to mar the exterior of the dome with a lantern, and an oculus would do well enough — in a presentation drawing — until he could think further. Correctly understanding that he had time to perfect his design, he also understood (as he had written Carroll on 25 May 1807) that "the resources of art are infinite." In truth, his oculus had a future.

The second defect was not new but had become more pronounced. From the first; for practical reasons, Latrobe had intended to place the high altar in a chancel. He consulted utility, not the ideal geometry that would have brought the altar out under the center of the dome. His treatment impaired the centralizing quality of his compromise-plan cathedral, although not acutely. Such a lapse from ideal form was not, after all, unusual to find in a compromise-plan or even a central-plan church.

The third defect weighed the most seriously. Latrobe had initially taken a functional chancel as his module for the plan. and the enlargement of the crossing cost the chancel dear. To restore

²⁶ Scanned page 444 column a

the chancel to usability, he had to carry it outward into the rotunda, but even so, he did not regain all the space that he had lost. It may have been this problem that Latrobe referred to in his letter of 5 March 1808 that accompanied the Design 7 section. There he alluded to "all the inconveniences which exist or may in future be discovered," and ascribed them to his persecutors who had promoted change after change. One concludes that he foresaw the problems that an inadequate chancel would create as the century wore on. At the same time the intrusion of the chancel (in the end, along an inharmoniously straight line that Latrobe did not plan) detracted from the clarity of the rotunda. One notices this defect far more readily in a plan than in the church, however, because it would take a mighty blemish to compete against the force of the great domed cylinder. On the positive side, Latrobe moved the side altars from the transept to niches formed²⁷ from the remnants of two of the former groin-vaulted units beyond the corners of the old crossing shown on [the drawing]. This allowed for a better relation between these altars and the pews.

Well before the end of 1810, when the first building campaign closed, the trustees came around to Design 7, but precisely when remains unclear. Thus Latrobe would note in a letter of 21 July 1817 to Enoch Fenwick, as the second phase of construction was beginning, that Rohrbach had laid out the area of the rotunda inaccurately. (His carelessness had worried Latrobe.) References to the transept in Latrobe's letters to Beeston of 2 October and 1 November 1809 very likely relate to the adoption of Design 7. In any event, for the duration of Campaign 1 Rohrbach worked on the walls and the piers. A letter of Latrobe's to Carroll of 20 July 1810 records his understanding that by then Rohrbach had raised the construction to 24 feet; its height to the bottom of the entablature of the principal interior order. The architect asked for a decision on the materials for the columns of this order, Replying to the archbishop on 27 July, he attempted to work out the issue. For example, he agreed to brick columns in the apse and he allowed for some use of scagliola. He further wrote that he would turn to Giovanni Andrei, his ornamental carver at the Capitol, for the ten capitals, that is, white marble Ionic capitals of the Erechtheum type, with enriched necks.

Ominously, near the outset of 1809 Carroll had had to borrow \$6,000 to carry on construction. On 18 May 1810, upon receipt of a letter from him, Latrobe replied that until then he had thought that the Baltimoreans meant to suspend work for that year. Work continued. A limited financial boon came from Colonel Howard's reducing the total price of the property to \$20,000 and from his waiving the interest then due — this because the grading of Charles Street had resulted in the need for unanticipated grading of the cathedral site. But 1810 would be the last year of the first building campaign, and on 20 February 1811 the trustees reported that they had closed the contract with Rohrbach.

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Latrobe's letter of 17 April 1811 to Carroll tells much of the story of the marble capitals. The architect had expected to get these at a great savings, because some handsome token of appreciation would have satisfied Andrei, and only Andrei's three assistants, Somerville, McIntosh, and Henderson would have charged for their work. But in March 1811, when Latrobe had requested a payment through Luke Tiernan, a member of the board, during an absence of Carroll's from Baltimore, Tiernan had notified him that the trustees found themselves substantially in debt and could not so far remember authorizing the capitals. Latrobe had therefore taken the assistant off the work. Promising not to embarrass²⁸ Carroll, who had authorized the capitals, Latrobe pleaded for payments to the needy men. The matter of the capitals, or, rather, their necks — apparently the carvers had gone little or no farther — would drag on for years. Meanwhile, the necks would remain in Washington.

Not until 2 October 1816 did the trustees resolve to recommence construction and to begin preparation for the coming building season. The Baltimoreans had tried a number of measures to raise money. Late in 1811 the board had successfully applied to the state legislature for permission to hold a second lottery to raise not more than \$50,000 for the cathedral. But in the war year of 1812 the trustees let the lottery ride. To judge from Latrobe's letters of 27 December to Carroll and to the landscapist Francis Guy, the archbishop thought that a painting of the cathedral by Guy would help raise funds. Latrobe, who had his doubts, nonetheless began the drawing of the building that Guy would need, but unfortunately the story (also recounted by J. Hall Pleasants) begins and ends with the two letters in question. In 1815 the trustees revived the idea of selling excess real estate, a measure that they had attempted in 1812 but had then postponed because of depressed property values. The land that they sold included six lots along the north side of the cathedral grounds in spring 1815, and they sold the remaining five lots there in spring 1817. In January 1817, almost four years later than originally agreed upon, they made their final payment to Howard.

New men figured in Campaign 2. Carroll had died in December 1815, and his successor, Leonard Neale, lived only until June 1817. The third archbishop, Ambrose Maréchal, energetically oversaw the completion of the campaign. On 7 February 1817 the trustees chose James Hayden as the new superintendent, with James Power as superintendent of the masons work. Father Beeston, too, had died in 1809; the Reverend Enoch Fenwick took his place not only at St. Peter's and on the board, but also in Latrobe's correspondence. One must note an additional name, that of William F. Small, the son of Latrobe's friend Jacob Small, Jr., the builder employed at the Baltimore Exchange. In a letter to Jacob of 4 March 1817, in the month when the younger Small became Latrobe's pupil in Washington, the architect referred to the cathedral as "destined for your William." But, if William worked on the cathedral in some capacity the known documents do not show it.

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Latrobe's letters of 1817 (the last year for his letter books) contain important material about the crypt, the vaulting, the rotunda, and the east end. On 16 February he wrote Father Fenwick that he wished shortly to come to Baltimore so that he and the trustees in frank discussion could establish in what manner they would finish the church. He must have feared a repetition of the first campaign and ²⁹ must particularly have feared that someone might push for imitation vaulting in wood and plaster. He did not reach Baltimore until the latter part of April, and the trustees minutes record no such interview, but Campaign 2 did not reenact Campaign 1. After another visit to Baltimore, Latrobe wrote Hayden on 21 May about the springing line for four groin vaults west of the rotunda — the two "half groin," roughly triangular bays bounding the rotunda and the "tower arches or groins" at the western end of each aisle.

In the same letter he wrote also of a newly settled matter, the decision to heighten the crypt under the chancel and thus to raise the chancel itself. The chancel thereby lost 14 inches at the bottom, The history of the scheme for the revised crypt, the "subterranean Chapel" for which the trustees made tentative provision on 13 June, winds through the documents without becoming wholly clear. The extant [1994] construction shows that Latrobe did raise the crypt level under the chancel. And (though the matter is not a simple one) the archdiocese did use the crypt level for interments. For instance, according to Charles Varlé's *Complete View of Baltimore* (1833), by then Carroll's and Maréchal's remains lay there.

In 1817 came the discovery that Rohrbach had laid out the crossing irregularly, with a north-south dimension of 68 feet 4 inches. and an east-west dimension of 69 feet. On 10 July Latrobe directed Hayden to compensate for "drunken" Rohrbach's error by reducing the diameter of the dome to 67 feet 4 inches, if Hayden had not yet carried the construction of the piers too far. The interior rose more rapidly than Latrobe anticipated. On 28 July he wrote Hayden that the two eastern niches must have coffering, for "otherwise they will be as bad as a monk," and on 1 August he wrote the directions to cover the pertinent drawing. But on 1 August Hayden wrote that he had finished the niches, of course without coffers, as one learns from Latrobe's reply of 5 August which declares "I am sorry the Niches are bald, but it is not of much consequence."

Latrobe's letter of 1 August mentioned that he was then at work drawing the great inner dome; his letter of 5 August promised that Hayden would have the dome drawings on 7 August; and on 6 August Latrobe wrote Hayden the covering letter for the working drawing of the dome. This last letter deals with the construction of a masonry dome, essentially that seen in the section of Design 7. By now however, Latrobe must mentally have taken the last giant step in the creation of the design. By this decision he set a second, outer dome, a version of that over the Halle au Blé, on top of his masonry dome.

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The architect's posthumously published description of the cathedral speaks of this second dome, "a³⁰ covering of timber and copper, forming an exterior dome 10 feet distant from the solid brick and stone dome within." Through this exterior dome light is thrown into the interior of the church through 24 windows, each is about 10 feet high and 2 feet 6 inches wide, arranged as flutings upon its sides. Again, after discussing the oculus of the inner dome, Latrobe wrote that "the timber, dome above-mentioned, rises 10 feet above the opening: the windows being upon the sides, are not seen from within, but cast a strong reflected light through the opening, from a highly decorated ceiling which terminates the view."

Latrobe had achieved a primary and a secondary goal by adding the outer dome. The first revolved around the matter of illumination discussed in his description. Inundating the Parisian grain market with light, Legrand and Molinos had used an oculus and had run their radial skylights up most of the surface of their dome. Latrobe dispensed with the oculus and shrank his radial skylights (still similar in shape to the French ones) to a band set slightly back from the perimeter of the interior oculus. In its effect on the lighting within the rotunda, this arrangement "was a world away" from the treatment in the Design 7 section, for it restricted the number of light and sight lines that could pass from a skylight through the oculus down to the level of human occupancy, although it would not exclude such lines altogether. (So, for instance, one could see the tops of the skylights through the oculus from numerous points on the cathedral floor, as in fig; 18, above. Latrobe's description, penned by a man who often wrote hastily, is unreliable in this as in other respects.)

The architect had restored artistry in light to his church. Immediately within the outer dome, and inaccessible to the ordinary viewer whose attention it must magnetize, there shone a region of brightness. The upper shell, treated with rich ornament at the center, permitted glimpses of the sky, still brighter and literally inaccessible. Through the oculus that opened into this vision, a concentration of direct and indirect light fell onto the interior dome of a rotunda that grew dimmer and dimmer as its walls descended to the floor. In this crossing, before the altars, Latrobe summoned up the mystery of darkness beneath his evocation of celestial brightness. This was the finishing touch that he placed at the heart of his compromise-plan church. It added sublime lighting to the sublimely scaled rotunda. Today [1994] one is left to imagine how Latrobe's version of *lumière mystérieuse* affected the power of the rotunda as seen through the western arches of the interior. One can more readily envision the fitness of Latrobe's treatment to the Roman Catholic ritual that he sought to house. And in Latrobe's sublime treatment one recognizes picturesque aspects both in its scenographic quality, with oblique vistas and with parts appearing³¹ from behind other parts, and in its presentation of a "*Unity of light*" as he described such an effect for Jefferson in October 1806 and in his "Essay on Landscape" in 1798

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³¹ Scanned page 446 column b

whereby a dominant "Mass of Central light" created "*determinate shadows*" and contrast in a painted or an architectural composition.

Latrobe had simultaneously seized a second advantage. He had devised an external domical volume more potent than the single masonry shell designed in 1808. A classic problem of domed churches did defeat him: because of the length of the nave, his outer dome, for all its swell, has never been visible in a head-on view of the west front from the pavement level on Cathedral Street. But, from the other principal viewpoints, the dome asserts itself as the culminating element of a building meant to compose a successful "picture" outside as well as within. The grandeur of the great green shell appears to the full only in a distant view of the Baltimore skyline, over which its rounded volume must originally have presided with sublime presence. The elegant, wreathlike ring of skylights disclosed the membranous nature of the surface and tempered the impression of gravity.

Some practical points require notice. First, Latrobe's design obviated the moisture problems of skylights along with the light problem. Because Latrobe had set the skylights away from the oculus of the inner dome, no water could fall from the glass into³² the body of the church. It fell instead upon the outer surface of the masonry dome, and Latrobe provided a series of run-offs, still extant [1994], to carry the water out to the roof. Second, Latrobe used the masonry drum and steps supporting the outer dome to weight the haunches of the inner dome. According to his December 1818 "*Memorial ... in vindication of his professional Skill*," he reinforced this inner dome against lateral pressure with at least one iron chain and one oak frame. The outer saucer itself, consisting essentially of Delorme ribs, glass, and copper, imposed only a light load. Writing to the military engineers Swift and Bomford on 31 March 1817 (about the south wing at the Capitol), Latrobe compared a wooden dome set upon its masonry dome to "a feather upon the back of an Elephant."

In sum, a long chain stretches behind Latrobe's double-shell dome. In his own career, important links include the Bank of Pennsylvania rotunda, with its problems of light and moisture; the dome of the first hall of Representatives, with all the intricacies of its history; Design 1 for the cathedral, its crossing lighted in a fashion analogous to that of the executed rotunda but less imaginative; Latrobe's knowledge of the Halle au Blé; Design 6, whatever the full form of its crossing; the double-shell dome in the study for the central unit of the Capitol that Latrobe began in December 1818; and the distinguished domical conceptions for the north wing, especially for the Senate chamber. Further back in history lie Jules Hardouin-Mansart's Dome des Invalides (1680-91) and Sainte Geneviève, great models for the combination of a multiple-shell dome with the *lumière mystérieuse*; when Latrobe wrote the "*Memorial ... in vindication of his professional Skill*" in 1818, his reference to the construction of the Double Dome of the Invalids, and the

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Triple dome of St. Geneviève verbally demonstrated that he had detailed knowledge of these churches. French example had led Wren to experiment with this kind of lighting, too (as in his Great Model design for St. Paul's of 1673). But, in the final version of the St. Paul's crossing, through the oculus of the inner dome one can see the windows (in the intermediate, conical superstructure) that admit light from the outer dome. Here Latrobe may have found his reason, or at least a model, for not making his skylights wholly visible internally. Another model, at a domestic scale, may have been offered by Claude-Nicolas Ledoux's Hotel de Montmorency of 1769-70. A section of this was illustrated in Johann Karl Krafft and Nicolas Ransonette's "*Plans ...des plus belles maisons et des hôtels ... à Paris*" (1801-03?), a work Latrobe had borrowed from Thomas Jefferson between 1805 and at least early 1807.

The greatness of Latrobe's final rotunda for the cathedral owes profoundly to Jefferson, and not merely because the ex-president unforgettably impressed upon Latrobe the Delorme/Halle-au-Blé³³ type of dome. Jefferson summoned Latrobe to the Capitol for Campaign 1; it was his work on the Capitol that brought Latrobe to maturity, a maturity that, for example, embraced the subtle manipulation of light. How appropriate, then, that at about the same time, Latrobe made the final decision for the covering of the cathedral rotunda and his designs for the University of Virginia buildings. In a mutually rewarding and justly symmetrical exchange (although Jefferson did not learn of his contribution), Jefferson's favorite type of dome played an essential role in the creation of Latrobe's cathedral, while Latrobe's contributions to Jefferson's university, contributions both to the general conception and to specific features of the design, were substantial. And yet a further bond may unite the church and the school. The "Leoni" skylights on the center building in Latrobe's sole surviving drawing for Jefferson's university, sketched in a letter to him of 24 July 1817 could well have belonged to a double-shell dome very like that of the Baltimore Cathedral.

With the cathedral's outer dome Latrobe gave the major crossing a kind of lighting comparable with that devised long before for the crossing. of the Gothic design but now the product of more sophisticated thinking. One suspects that his interest in Gothic lighting effects played a genetic role in the creation of the subtle treatments of light of which he became master, especially here. But the lighting of the cathedral rotunda also suggests a Byzantine undercurrent. Externally, the skylights hint at the Gothic but even more at the Eastern. Such an impression squares with late eighteenth- and early nineteenth- century notions: Sir William Chambers gave the central dome of his "Mosque" at Kew Gardens in Surrey (1761) what Latrobe, apropos of the cathedral's outer dome, called "flutings," while William Porden (like Latrobe a pupil of S.P. Cockerell) elaborated³⁴ the Halle au Blé into an Oriental fantasy of a stable for the Prince of Wales at Brighton (1804-08).

³³ Scanned page 447 column b

³⁴ Scanned page 448 column a

One suspects that some conception of Byzantine architecture (although not by that name) and its relation to Roman architecture underlay Latrobe's acceptance of Legrand and Molino's skylights, leading him to consider them as exotic forms. This conception may also have involved the Gothic, and this hypothetical set of ideas may have played into the creation of the interior lighting of the rotunda as well as the exterior covering. Latrobe may have had a considerable body of old reading upon which he could draw to these ends, for he wrote Jefferson on 12 August 1817 that helping James Bruce prepare volume 1 of Bruce's *Travels to Discover the Source of the Nile* (1790) had prompted him to immerse himself in literature on the East.

The words of at least one observer show that he grasped a good deal of Latrobe's intention regarding light. Even before the outer dome went into place, and moreover, that he guessed something of the early history of the cathedral design. The Scots traveler John M. Duncan had an eye for architecture almost as keen as his eye for religious error, notably for the errors of the Papistry. He saw the cathedral in September 1818; he did not much care for it and preferred Maximilian Godefroy's neighboring Unitarian Church of 1817-18, in spite of his opinion of Unitarian teachings; but he wrote observantly of the two churches:

The style of the respective buildings strikes me as somewhat appropriate to the system which it has been erected to support. The cathedral is built of dark coloured stone in the form of a cross, with a dome over the centre, but the length is not nearly so great as in our ancient churches. It is rather singular that they have not attempted the Gothic in this building; probably the great expense of that style may have been the cause of the Roman Doric being preferred. [The internal Ionic columns cannot have gone into place yet, and Duncan misconstrued the Greek antae as Roman Doric pilasters] ... the size and disposition of the windows, with the crossing of the transept, have been so managed as to throw into the body of the church a strong depth of shadow, the holy gloom of which will doubtless be esteemed highly conducive to genuine religious emotion, and which at least we must grant to be no way inappropriate in that ritual, of which the burning of candles forms so important a portion.

The documents give other glimpses of Campaign 2. In late summer 1817, Latrobe unearthed the ten Andrei column necks, not completely finished, still not paid for, and now damaged. A long wrangle ensued, and not until January 1819 did the trustees resolve to pay for all ten. Latrobe shipped the six for³⁵ the apse in autumn 1817; the semidome could not go into place until Hayden completed the order here. In 1818 the trustees opened a new subscription. On 12 May 1818, Latrobe, who had moved to Baltimore that January, attended a meeting of the trustees with Hayden in order to determine the pew dimensions (afterwards slightly modified). The trustees now authorized him to procure a mold so that he could have the volutes for the chancel capitals cast inexpensively in some metal, afterwards referred to as bronze in the architect's

³⁵ Scanned page 448 column b

posthumously published description. In October Latrobe participated in the ceremony of driving the four last bricks into the curb of the oculus of the great masonry dome, and the trustees resolved to put up and temporarily roof pan of the rectangular stage of the towers above the principal exterior cornice during the current building season. Picking up where Carroll had left off, Maréchal closed the year by preparing a printed pastoral that, more forcefully than any of Carroll's attempts in the same vein, called upon Catholics throughout the diocese to contribute to the building fund.

By 7 June 1819 Thomas Hall of New York had contracted to build the organ for \$6,000. On 2 October Latrobe's son Benjamin could record that the workmen had finished the principal dome, but with rosettes of stucco rather than the terracotta that his father had wanted."

Early in 1820 the trustees wrote their architect a well-merited testimonial of their esteem. The *Baltimore American* that year carried advertisements for the second cathedral lottery. And on 2 November the trustees adopted regulations for the sale of the use of the pews and for the occupancy of the pews. They resolved to have a plan of the church engraved for use in the pew auction on 13 November; the *Baltimore American* of 13 November directed Catholics to the Baltimore publisher and bookseller Fielding Lucas, Jr. for the print. This plan obviously depends on a lost Latrobe plan, although it is not absolutely accurate. So far only two copies of the³⁶ print have come to light, both in the archives or the Sacra Congregazione de Propaganda Fide in Rome. Archbishop Maréchal sent the copies to Cardinals Fontana and Fesch, the latter a donor of paintings to the cathedral.

The minutes entry for 2 November gives the key to the pew plan. Thus the eighty-eight pews marked A were each to sell for no more than \$400 and to rent for \$10 annually, while the remaining fifty-two pews graded down the scale to four pews marked "D," to which the trustees did not affix any sums. Although not all the pews found purchasers on 13 November, the auction realized more than \$40,000. The plan shows a straight chancel rail. On 9 June 1820 the trustees had resolved. "that the four front Pews be removed and the floor of the Sanctuary extended so as to make a straight railing from one side to the other instead of it curved one as now laid down." One infers from the minutes that the archbishop and his clergy, considering the arrangements within the chancel, had already found it too tight a fit.

At long last, on Ascension Day (31 May) 1821, Maréchal dedicated the cathedral. The church went into use with much still remaining to be done. It conspicuously lacked its western portico (meant to be Ionic from at least the time of the Design 7. perspective) and its tower cupolas. The account of the creation of the latter two elements forms a suitable transition from Campaign 2 to the periods of post Latrobe construction.

³⁶ Scanned page 449 column a

The trustees' minutes deal with the erection of the south tower, which would house the bell, in 1831 and 1833, and, after a false start in 1833, the minutes deal with the erection of the north tower in 1837. An entry in the diary of the architect's son, John H. B. Latrobe, (2 Dec 1837) identifies the second tower as nearly complete, The younger Latrobe directed the construction of the belfry on the south. As quoted by his biographer John E. Semmes, he reminisced of this (and his later work on the portico platform) that "as I was in possession of my father's plan, I undertook to superintend the work which I did, making all the working drawings." The foregoing documents do not prepare one for the remarks on the towers that the *Baltimore American* printed on 13 June 1831 and that *Niles Register* reprinted on 30 July 1831. The anonymous writer noted that the portico and towers

are included in the original design of the distinguished artist, the late B. H. Latrobe, by whom it was planned. We are gratified to learn that the congregation intend to commence immediately the construction of the two towers, according to the original plan, the drawings of which have of course been preserved.

The writer described the design:

at the height of about six feet above the present commencement the towers assume a circular form, and consist each of eight piers, with intermediate arches. Above these are deep, bold, panels,³⁷ and over them again is the cornice, in keeping with the rest of the building. A step, or blocking course, rests upon this, supporting the saracenic dome, with its tall spire, that crowns the whole.

Fiske Kimball's study of the cathedral in 1917-18 established the conviction among art historians that the onion domes on the west towers came from a mind other than Benjamin Henry Latrobe's, and that they mar his cathedral. The classical domes, in the drawing], a perspective probably of 1818, have passed for Latrobe's final thoughts for covering the towers. This tradition of opinion has not held center stage for decades — notwithstanding the contrary ideas set down by Cornelius M. Cuyler in 1950 —but there is ample reason to question this tradition, and to confirm that reported in 1831: that the onion domes of the western Lowers followed Benjamin Henry Latrobe's designs.

It was John H. B. Latrobe who directed the execution of the first, decisive tower, as well as illustrating the intended appearance of the completed church in his "*Picture of Baltimore*" (1832). The role that fits him is that of the lifelong faithful guardian of his father's artistic legacy. Around 1834, when he wrote his "Memoir of Benjamin Henry Latrobe 1st," he called the cathedral his father's greatest work and expressly ranked even the Bank of Pennsylvania beneath it. His words do not read like those of a man who had just introduced a radical change

³⁷ Scanned page 449 column b

into the design, a statement that applies to the several comments that he wrote about the church at different times in his life.

By contrast, the elder Latrobe readily fills the qualifications for the authorship of the towers. Time and again he manifested his delight in innovative design, and he exhibited his power to scale imaginative peaks: And his hand unquestionably produced two designs closely related to that of the west domes and finials. The 1817 project for the Unitarian Church in Baltimore, an exercise in the vein of Wren, has a belfry with an ogee roof and a finial even more apparently indebted to the baluster spire (finished 1695) atop Wren's church of St. Augustine, Watling Street, in London. And the upper stage of Latrobe's tower for the St. Louis Cathedral in New Orleans (1819-90) also resembled the Baltimore Cathedral cupolas. For the Louisiana tower, Latrobe reversed the curvature (so that the roof harmonized with those on the already standing corner towers), omitted the baluster, and added crowning ornament distinctly reminiscent of the fluted patten found on the Baltimore towers, then, appear elsewhere in Latrobe's mature work. In view of his habits regarding revision, it scarcely stretches credibility to allow him to have revised his conception of the towers after making the drawing sometimes construed as definitive of his intentions, [the drawing], where, indeed, the cupolas appear in an imperfectly digested phase. In³⁸ fact, the wording in the 1831 newspaper account of: the towers — with dimensions and with specific constituent parts named in vertical sequence — suggest that the writer may have been looking at Latrobe's own drawing for the towers.

Accepting Latrobe's responsibility for the tower design still leaves the question of why he wanted to finish the cathedral in this fashion. Potential clues to his thinking abound: the orientalizing dome that S. P. Cockerell put on Daylesford House in Gloucestershire (1788-93), a neoclassical work that Latrobe must have known from his time in Cockerell's office, the spire of St. Anne's, Soho (1802-03), further attesting to that current in Cockerell's thinking; the type of finial that Latrobe proposed for the cathedral's great dome and had used at the Bank of Pennsylvania; and his statement of 21 May 1807 that the belfry "is an Eastern accession to our religious buildings."

Latrobe does not seem to have presented his motives for this kind of form more explicitly, but John H. B. Latrobe must have got near the heart of the matter when he wrote in the "Memoir" that "the exterior still wants one of the towers to lighten by contrast the Dome which now appears to be too massive." The soundness of his remark becomes apparent not in the most familiar views of the cathedral, from nearby, but in more distant views of it on the Baltimore skyline. To the rotund gravity of the outer dome — its form considerably lightened from the outset by the transparent, petal-like "flutings" — Latrobe gave the foil of spire-like towers, spirited in the swell and taper of their caps. The contours or the onion bulbs and their finials contrasted with the pattern of the skylights, while elaboration and delicacy of outline served as

³⁸ Scanned page 450 column a

common denominators. The cross atop the big dome harmonized that area with the versatility of the cross-tipped western balusters. To imagine these relationships away, to imagine lower, rounded domes on the cupolas, is to blunt and deaden the composition.

It appears that in the late teens Latrobe, recognizing the applicability of ogee-profile roofs to a variety of circumstances, looked in at least two directions. The oriental or Byzantine cast of his outer crossing dome, along with his belief about belfries, probably influenced him quite consciously when he devised the towers. A more purely formal influence may also have attracted him to such shapes. As he considered the towers he must have turned in his thoughts to the example of Wren, especially the Wren of St. Paul's cathedral, where the enlivened modeling of west tower with reverse-curving domes played against the stereometric grandeur of the outer dome over the crossing.

One can admire the sophisticated ascent that Latrobe contrived for the towers, from the blocky and angular cross-plan stage where each emerges above the church, to an octagonal step, and thence through a sequence of concentrically circular elements to the jubilant culmination, the liquidly³⁹ molded dome and the soaring, spikey, cross-tipped finial. (One does miss the unifying and stabilizing effect of the unexecuted parapet that Latrobe wished to have connect the towers at their rectangular stages). Also admirable was the composite effect: in adding to the grandeur of the central dome the uplift of the towers, Latrobe perfected an essay in sublime as well as picturesque effects.

The major development leading to the present appearance of the cathedral and its complex can round out the account of the building. Although this selective summary brings out changes that would displease or even anger Latrobe, repeatedly it exhibits the loving care that the archdiocese has bestowed upon the church.

Robert L. Alexander has discussed the Archbishop's House, which Latrobe's pupil William F. Small built due east of the cathedral (1829-c1830). By 10 August 1840 the trustees had contracted for Robert Cary Long, Jr.'s granite, marble, and iron enclosure around the cathedral, and the Baltimore *Sun* reported on the completion of the work on 25 June, 1841. On 5 October 1840 the trustees also accepted Long's design for the sexton's lodge, which they built to the northwest of the church.

The trustees adopted a plan for the portico foundations on 3 June 1811. This was submitted by John H. B. Latrobe, whose recollections of its difficulties with the front steps was quoted by his biographer, Semmes. By his own account, the younger Latrobe made "a finished drawing of the portico" and a "clever" perspective of the cathedral as intended, but completion of the portico

³⁹ Scanned page 450 column b

had to wait until the 1860s. The board, on 14 May 1860, resolved to erect the porch and chose Eben Faxon, a little-remembered Baltimore designer, as the architect. The *Baltimore American* of 6 May 1862 and the *Catholic Mirror* of 7 June 1862, 4 October 1862, and 20 June 1863 published informative reports on the endeavor. By the last date, Faxon had the columns, of tan, New Brunswick freestone, ready to receive a cast iron ceiling by the firm of Hayward and Bartlett. In spite of the *Mirror's* assertion of Faxon's fidelity to the spirit or Latrobe's "scanty drawings," the finished portico probably differs in detail from what Latrobe intended, particularly in the treatment of the corner and flank capitals.

On 29 March 1867, the trustees resolved to execute John Rudolph Niernsee's plan for enlarging the west, north, and south gallery. This seems the likely time for the disappearance of the interior columnar screen at the west end of the nave, as well as the insertion of the west gallery windows, an eyesore on the facade. Although the 1860s saw the church completed, the archdiocese did not finish paying for the building until 1876, when Archbishop James Roosevelt Bayley consecrated it.

John H. B. Latrobe kept a watchful eye on the cathedral. On 29 March 1878, on behalf of himself and his brother Benjamin Henry, Jr., he wrote the⁴⁰ new archbishop, James Gibbons, to protest that a proposed extension of the east end would spoil his father's building. Perhaps his words had their effect, and probably one owes to Gibbons the decision that the cathedral's two late nineteenth-century additions must as far as possible harmonize with the original work. In 1879 the Baltimore architect Ephraim F. Baldwin, enlarging the chancel by opening the sacristy and vestry into it, added on the north a sacristy wing. (The *Sun* reported at intervals on this change.) This element externally approximates Latrobe's style and compositionally it affects a flank where Latrobe had already sacrificed some beauty of effect by sealing the great transept archway.

Still the sanctuary remained too small, and so the archdiocese turned once more to Baldwin, now in partnership with Josias Pennington. Once again the *Sun* provided some coverage, now as Baldwin and Pennington extended the head of the Latin cross (1890-c.1891). They replaced Latrobe's easternmost range of bays with a third domed crossing, a variation on his nave, and they gave the new east wall a variation on his apse with a "bald" dome. Underneath their addition they built a new crypt for the archbishops of Baltimore. The annexation of the new sanctuary stretched the Latin-cross configuration almost to the breaking point, made the longitudinal element in the interior far stronger, modified the rhythm of the south front, and projected the bow of the apse beyond the rectilinear wall ranging with tile sacristies. But one could not in fairness ask of the period a more sympathetic addition. And even though the interior effect differs profoundly from what Latrobe originally created, the rotunda maintains its dominance.

⁴⁰ Scanned page 451 column a

In the years 1943-47, after the comprehensive survey by the Cogswell Construction Company of Baltimore in 1942, the church underwent a renovation at the hands of the Washington architects Murphy and Locraft; the Cogswell⁴¹ firm, and a number of specialists (for example, the Rambusch Decorating Company of New York). From this period date a high percentage of the fittings, such as the floor, the pews, the confessionals, the stained glass, and the baldachino. Now the west front received two smaller doors flanking Latrobe's and the vestibule behind assumed its present form. Vastly more important, the renovation removed the decayed skylights from the outer dome, sealed the openings, and for ventilation installed a low lantern underneath the cross at the apex of the dome and louvered dormers slightly further down. With the dome, electric lighting supplanted the *lumière mystérieuse*. On the exterior the ventilators intruded upon Latrobe's contours, while the lightness, the transparency, and the imaginative effect of the brow of the dome departed with the skylights. But the skylights had a shaped pattern of rain stains below them; and these "flutings" in dark and light still give the great dome an oriental cast, still call out to the answering Easternness of the tower caps.

Two later events round out this chronicle of changes, one affecting only the standing and not the appearance of Latrobe's cathedral. Between 1954 and 1959 the archdiocese built a second cathedral, the Cathedral of Mary Our Queen, to the design of Eugene F. Kennedy, Jr. of Maginnis and Walsh and Kennedy of Boston. And in 1962 — once again the *Sun* reported on the undertakings the "old" or co-cathedral experienced another important renovation. On the exterior the archdiocese had the masonry cleaned, repaired and repointed. One must mentally pare back the new raised joints to recreate Latrobe's intentions, but the endeavor cleansed the beautiful granite of the grime of a century and a half. The Rambusch firm redecorated the interior in gray, blue, and gold. Unskillful attempts at religious painting mar the decorative scheme, but the coloring enhances the beauty of the architecture, and the redecoration easily ranks as the most sympathetic thus far.

Outside the cathedral grounds, tall twentieth century buildings have obliterated the grand prospect of the church from the north, the south, and lately the west. But from the east, as one approaches along Orleans Street, one can still appreciate the grandeur and vitality of the composition with which Latrobe capped Baltimore's skyline. As to the building itself, it differs in significant ways from what Latrobe wished, yet his great conception overrides the obstacles to enjoying his artistry. One hopes that the future will make this even more the case, for the restoration of his twenty-four skylights would in great measure reinstate his final conception of his pivotal element, the domed- rotunda. This step would also pay tribute to the fertile exchange of ideas between two great architects of the young nation, Benjamin Henry Latrobe and Thomas Jefferson.

⁴¹ Scanned page 451 column b